



Evaluation of knowledge, attitude and behavioral features of our hospital staff about family practice

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Abstract

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Aim: This study aimed to assess the knowledge level, attitudes, and satisfaction with family medicine services among healthcare workers at Haydarpaşa Numune Education and Research Hospital (HNEAH).

Materials and Methods: A face-to-face questionnaire was administered to healthcare personnel at HNEAH to collect data on sociodemographic characteristics, knowledge, attitudes, behaviors, and satisfaction with family medicine practices. The questionnaire included items designed to measure participants' familiarity with family physicians, utilization of family medicine services, and satisfaction levels.

Results: Among the participants, 63% were under 30 years of age, 57.8% were female, and 37.2% were doctors. Approximately 80.4% of the employees were enrolled in the family medicine system, and 75% knew their assigned family physician. Despite this high enrollment rate, 45.5% of participants had not visited their family physician in the past year. The primary reasons for visiting family physicians included proximity (56.7%), while the most cited barrier was the mismatch between working and service hours (44.5%).

Conclusion: The study highlights that while healthcare workers reported high levels of satisfaction with family medicine services, the knowledge of family medicine practices was significantly influenced by age and the frequency of visits to family physicians in the past year. These findings underscore the need for targeted educational initiatives to improve awareness of family medicine and encourage greater utilization of primary care services. Future research should focus on exploring participant preferences and barriers to optimize the effectiveness of family medicine services.



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Introduction

The primary objective of primary health care services is to provide comprehensive curative and preventive health services that do not require hospitalization. These services represent the first point of contact for individuals seeking treatment and play a critical role in ensuring accessible, equitable, and effective healthcare delivery [1]. In Turkey, primary health care institutions include health houses, family health centers, medical practices, tuberculosis dispensaries, maternal and child health centers, and community health centers [2].

Family medicine, also referred to as general practice, is an academic and scientific discipline rooted in the principles of primary care. It encompasses a structured program and curriculum, an evidence base, and practical clinical

applications [3]. Family physicians, as the cornerstone of family medicine, are uniquely equipped to manage the disease process at all stages, provide holistic care, and build meaningful patient relationships. They bear significant responsibility not only for individual health but also for the well-being of society as a whole [4,5].

Previous studies have highlighted varying levels of knowledge and attitudes toward family medicine practices in different populations, emphasizing their critical impact on the effective utilization of primary care services. Limited awareness and negative perceptions of family medicine have been associated with underutilization of preventive services, delayed healthcare-seeking behavior, and increased strain on secondary and tertiary healthcare systems. Understanding these dynamics is essential to addressing barriers to care, improving patient outcomes, and optimizing the role of family medicine within the healthcare system.

Assessing knowledge and attitudes about family medicine

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practices is essential for enhancing public engagement with these services, promoting preventive care, and reducing the burden on higher-level healthcare institutions. Investigating these factors not only contributes to the growing body of literature on primary care but also provides actionable insights for policymakers, educators, and healthcare practitioners.

The purpose of this study is to evaluate the knowledge, attitudes, and behavioral characteristics of healthcare personnel regarding family medicine practices. By exploring these dimensions, the study aims to identify gaps in knowledge, examine the factors influencing attitudes, and offer evidence-based recommendations for strengthening primary healthcare delivery.

The increase in patients seeking secondary health care without first consulting a family physician can be attributed to multiple factors. One significant reason is the absence of a mandatory referral system, which has been shown in previous studies to effectively regulate patient flow and promote the use of primary care services in countries with similar healthcare structures [6]. Additionally, individuals may perceive their conditions as chronic and opt for secondary care to access more comprehensive diagnostic and therapeutic services. The general approach of health institutions, the design of the social security system, and the demands of a technology-driven, modern lifestyle further exacerbate the preference for secondary care services. Furthermore, perceived deficiencies in staffing and technological infrastructure within primary care facilities discourage patients from seeking family medicine services, contributing to the underutilization of primary care [7].

This study evaluates the knowledge, attitudes, and practices of healthcare professionals at HNEAH regarding family practice, with the aim of identifying barriers to primary care utilization and proposing strategies for improving the effectiveness of family medicine services.

Materials and Methods

Patient protocol

The study admitted to the ethical standards summarized in the Declaration of Helsinki, and the Haydarpasa Numune Training and Research Hospital Clinical Research Ethics Committee granted approval (Protocol No: HNEAH-KAEK 2016/KK/89, Date: 26.09.2016). Participant Selection: The participants were selected from a total of 301 health personnel (doctors, nurses, midwives, health officers, psychologists, dieticians and other allied health personnel) working at HNEAH between 26/10/2016 and 26/12/2016. The patient group comprised volunteers aged 18 and above who had consented to participate in the study. No selection was made in the research, and the general scope of the research was included. Prior to the evaluation, the patients were informed about the study and provided written consent. The questionnaire comprised two sections: a sociodemographic data form and a series of questions designed to assess the knowledge, attitudes and behaviours of the employees in relation to family practice. The aforementioned questions were answered in a face-to-face interview format.

Participant selection

The participants were selected from a total of 301 health personnel (doctors, nurses, midwives, health officers, psychologists, dieticians and other allied health personnel) working at HNEAH between 26/10/2016 and 26/12/2016. The patient group comprised volunteers aged 18 and above who had consented to participate in the study. No selection was made in the research, and the general scope of the research was included. Prior to the evaluation, the patients were informed about the study and provided written consent. The questionnaire comprised two sections: a sociodemographic data form and a series of questions designed to assess the knowledge, attitudes and behaviours of the employees in relation to family practice. The aforementioned questions were answered in a face-to-face interview format.

Inclusion criteria for the study

The following individuals were eligible to participate in the study

1. Being a health personnel working in our hospital
2. Being over 18 years of age
3. Being a volunteer
4. Having completed the questionnaire form in its entirety.

Exclusion criteria

1. Those not employed as health personnel within our hospital
2. Those under the age of 18
3. Those not volunteering.

The sociodemographic characteristics of the patients selected according to these criteria were recorded by questioning age, sex and occupation, respectively.

Technique

Evaluation

The responses provided by the participants to the information questions were evaluated on a scale of 1 (affirmative) to 0 (negative or unknown). Their knowledge levels were subsequently scored. The knowledge score regarding the duties of family practice exhibited considerable variation, with a range of 0 to 46. A total of 46 points will be awarded when all questions are answered correctly. An intermediate-level knowledge score was accepted as 23, with 23–33 points classified as moderate, 33–40 points as good, and above 40 points as very good. A higher score indicates a higher level of knowledge. In order to ascertain the level of satisfaction with family practice, participants were invited to assign a score between 1 and 5, with 1 indicating the lowest level of satisfaction and 5 indicating the highest level of satisfaction.

Statistical examination

The data obtained from the study were subjected to analysis using the SPSS (Statistical Package for Social Sciences) for Windows 22.0 software. Descriptive statistical methods, including number, percentage, mean, and standard deviation, were employed for the evaluation of the data.

A two-sample t-test was employed to evaluate the statistical significance of quantitative continuous data between two independent groups. Similarly, a one-way analysis of variance (ANOVA) test was utilized to assess the statistical differences between more than two independent groups. A Scheffe test was employed as a supplementary post-hoc analysis to ascertain the discrepancies subsequent to the ANOVA test. Pearson correlation and regression analyses were conducted to examine the relationship between the continuous variables under investigation.

Hypothesis testing methods and assumptions

Independent Samples t-Test

Purpose: To compare quantitative continuous data between two independent groups.

Assumptions: The data of the groups should follow a normal distribution, tested using the Kolmogorov-Smirnov test ($n > 50$) or the Shapiro-Wilk test ($n \leq 50$). Variances between the groups should be homogeneous, assessed using Levene's test.

One-Way ANOVA Test

Purpose: To compare quantitative continuous data among more than two independent groups.

Assumptions: The data of the groups should follow a normal distribution. Variances between the groups should be homogeneous, tested using Levene's test. If the ANOVA result indicated a significant difference, the Scheffe test was applied to identify which groups differed.

Pearson correlation analysis

Purpose: To examine the linear relationship between continuous variables.

Assumptions: Both variables should follow a normal distribution. There should be a linear relationship between the variables.

Regression analysis

Purpose: To evaluate the effect of independent variables on the dependent variable.

Assumptions: There should be a linear relationship between the independent variables and the dependent variable. Residuals should follow a normal distribution. There should be no multicollinearity among the independent variables.

Normal distribution and variance homogeneity checks

- *Normal distribution compliance;*

- The Kolmogorov-Smirnov test was applied when the number of participants was > 50 .
- The Shapiro-Wilk test was applied when the number of participants was ≤ 50 .

- *Skewness and Kurtosis values* were considered acceptable if they fell within the range of $+2.0$ to -2.0 .

- *Variance homogeneity* was evaluated using Levene's test.

Evaluation of results

The findings were evaluated with a 95% confidence interval and a 5% significance level ($p < 0.05$).

Results

The study population was predominantly young, with approximately 63% of participants aged 30 years or younger. Women constituted 57.8% of the sample, and the majority of participants were physicians (37.2%) (Table 1).

An evaluation of the health institution to which the participants of our study applied, with the exception of cases of emergency, revealed that approximately half of the participants (49.8%) had applied to the Training and Research Hospital. Upon inquiry as to the number of visits to a family physician in the preceding year, 45.5% of respondents indicated that they had not consulted with a family physician. As the study was conducted in HNEAH, it was anticipated that the initial institution to which the participants applied, with the exception of emergencies, would be EAH (Table 2).

Approximately 75% of the participants indicated that they had a preexisting relationship with their family physician. Despite participants demonstrating adequate knowledge regarding vaccination and newborn examination, the level of knowledge about cancer screening by family physicians remained below 50%. While 80% of respondents were aware that childhood vaccinations were conducted in ASMs, more than 70% were also cognizant of the fact that family physicians performed chronic disease follow-up screening and pregnancy follow-up (Table 3).

The most significant reasons for the participants' preference, as identified through evaluation, can be classified into three primary categories: proximity to one's residence (56.7%), accessibility to minor health concerns (52.4%), and the influence of a medical prescription (49.4%). The least common reason for attending was to monitor the progress of a pregnancy. The primary reason cited by those who did not attend a family physician appointment

Table 1. Distribution of demographic characteristics of participants.

Tables	Groups	Frequency (n)	Percentage (%)
Age	18-25 years	84	27.9
	26-30 age	106	35.2
	31-35 age	36	12.0
	36-40 years	35	11.6
	41-45age	23	7.6
	Over 45	17	5.6
	Total	301	100.0
Gender	Woman	174	57.8
	Male	127	42.2
	Total	301	100.0
Profession	Doctor	112	37.2
	Nurse	89	29.6
	Midwife	15	5.0
	Other	85	28.2
	Total	301	100.0

Table 2. Behavioural status of people in family practice.

Tables	Groups	Frequency (n)	Percentage (%)
Health Institution Referred to Other Than Emergency	Training and Research Hospital	150	49.8
	University Hospital	9	3.0
	State Hospital	44	14.6
	Private Hospital Private Practice	30	10.0
	Registered Family Physician	52	17.3
	Any Family Doctor	3	1.0
	Nowhere	13	4.3
	Total	301	100.0
Number of visits to the family physician in the last one year	Never been there	137	45.5
	Once	70	23.3
	Between 1-5	75	24.9
	More than 5	19	6.3
	Total	301	100.0

Table 3. Distribution of knowledge about family practice and duties of family physicians.

Tables	Groups	Frequency (n)	Percentage (%)
Familiarity with the family physician	Yes	225	74.8
	No	76	25.2
	Total	301	100.0
The family doctor performs immunisation in infancy and childhood	Yes	242	80.4
	No	20	6.6
	No opinion	39	13.0
	Total	301	100.0
The family doctor screens for colorectal, breast and cervical cancer	Yes	127	42.2
	No	73	24.3
	No opinion	101	33.6
	Total	301	100.0
The family physician performs the necessary examinations and follow-ups in pregnant women	Yes	241	80.1
	No	30	10.0
	No opinion	30	10.0
	Total	301	100.0
The family physician carries out chronic disease follow-up and screening of people registered with him/her (such as diabetes, hypertension, thyroid disease, heart disease)	Yes	217	72.1
	No	26	8.6
	No opinion	58	19.3
	Total	301	100.0

was the incompatibility of the appointment time with their work schedule (44.5%) (Table 4).

The responses provided by the participants to the information questions were scored as either "1" (affirmative) or "0" (negative or "no idea"). These scores were then used to assess the participants' knowledge levels. A total of 46 points can be obtained when all questions are answered correctly. In our study, the mean score for the level of knowledge about the duties of family physicians was found to be 27.203 ± 10.531 , indicating a moderate level of knowledge. Upon inquiring of the participants as to the extent of their satisfaction with the family physician, a score between 1 and 5 was requested, with 1 representing the lowest level of satisfaction and 5 the highest. The results indicated a high level of satisfaction (3.880 ± 1.101).

When calculating the level of satisfaction with family prac-

tice, it can be stated that even when only those who gave a rating of "4" or "5" are considered, the percentage of satisfaction is 62.8% (Table 5).

Discussion

The objective of our study was to evaluate the knowledge, attitudes and behaviours of healthcare professionals working in HNEAH with regard to family practice. In our study, approximately half of the participants initially sought care at the PHC, except in cases of emergency. In contrast, the study conducted by Oyan [8] in 2013 on patients applying to Istanbul Faculty of Medicine observed that a significant proportion (38%) initially sought care at the State Hospital, while 35% initially sought care at the University Hospital. The high number of applications to EAH observed in our study can be attributed to the fact that the study was conducted on Haydarpaşa Numune

Table 4. Attitudes towards family practice.

Tables	Groups	Frequency (n)	Percentage (%)
The most important reasons for choosing a family doctor	Close by location	93	56.7
	Trust in the physician	51	31.1
	Minor health problems can be dealt with there	86	52.4
	Having laboratory facilities	29	17.7
	Dressing, injections	44	26.8
	Protective services	30	18.3
	Family planning	23	14.0
	Printing a prescription	81	49.4
	Pregnancy follow-up	20	12.2
	Infant and child follow-up	35	21.3
Reasons for not visiting the family doctor	Health report	62	37.8
	Other	1	0.6
	I do not trust	3	2.2
	I don't like the family doctor	2	1.5
	Inadequate laboratory facilities	17	12.4
	Not suitable for my working hours	61	44.5
	I don't know where he is	21	15.3
Other	52	38.0	

Table 5. Average level of knowledge and satisfaction with family practice.

	N	Centre	Ss	Min.	Max	Ranj
Level of knowledge about the duties of family practice	301	27.203	10.531	1.000	46.000	0-46
Satisfaction with family practice	164	3.880	1.101	1.000	5.000	1-5

EAH employees.

While 18.3% of our participants proceeded to the registered FH or any FH as the initial institution consulted when they encountered a health issue, this figure was 14.1% in Oyan's study [8], which aligns with our findings. In a study conducted in Kayseri province in 2011 among patients who applied to ASMs [9], it was observed that approximately half of the individuals preferred to initiate the first step in addressing their health concerns. It can be concluded from these findings that there is a parallel between the location of the studies and the initial institution to which patients apply. It was established that the location of the study was the primary point of contact for individuals seeking healthcare services. Nevertheless, it would be erroneous to extrapolate these findings to the entire country.

In our study, 45.5% of participants reported never having visited an FH centre in the previous year, representing approximately half of the total sample. In Oyan's study [8], the corresponding figure was 42.1%, which is consistent with our own findings.

The majority of participants (80.4%) were registered in the family practice system, and 75% of them had a known family physician. In a study conducted on 1,016 students at Gümüşhane University in 2010 [10], only 20% of the participants were registered with the family practice system, and only 7% were aware of their family physician. The pilot implementation of family practice commenced in Düzce province in 2005 and was subsequently implemented in all provinces across Turkey in 2014. As our study was con-

ducted towards the end of 2016, it is anticipated that the level of enrolment in the family practice system and the level of recognition of the family physician will be higher than that reported in a study conducted in 2010.

In our study, the most common reasons for preferring a family physician were that it was conveniently located and that they could address minor health concerns at the FHC and obtain a prescription (Table 5). In another study [8], the most common reasons for visiting a family physician were to have a prescription written and to have tests and treatment when ill, which are similar to those reported in our study. In our study, the percentage of individuals who selected a family physician for the follow-up of healthy children remained at 21.3%. This figure contrasts with the findings of a UK-based study, in which the primary reason for visiting a family physician was for the examination of healthy children [11]. In a separate study conducted in Turkey [9], it was observed that the majority of participants sought only therapeutic services, with minimal demand for preventive services such as vaccination, pregnancy follow-up, and family planning. Furthermore, the desired level of success in preventive services was not achieved in this study.

The level of satisfaction with family practice in our study was 62.8%, while a study conducted on 1,001 patients who applied to GATA revealed that 73.4% of participants were satisfied with family practice services. This satisfaction rate is comparable to those observed in numerous other studies on family practice satisfaction [12].

Limitations

1. As the study was conducted in an ECAH, the findings cannot be generalised to healthcare professionals working outside of this context.
2. As the study was conducted on a sample of 301 individuals, it is not possible to generalise the results to the entire population.

Conclusion

The findings of our study, along with those of numerous other studies in this field, indicate that the majority of individuals prefer to seek care from specialists or other healthcare providers, rather than from family physicians, when they experience a health issue. This results in an increased financial and personnel burden on higher-level health institutions, effectively nullifying the impact of initiatives and expenditures made to strengthen primary care. In light of the proven efficacy of primary care services in countries such as the United Kingdom and the Netherlands, where a referral system is in place, the introduction of a similar system in our country could ensure a more optimal utilisation of primary care resources. It is our contention that the implementation of specific regulatory measures at the state level, aimed at encouraging the utilisation of the step system in health services, will facilitate a more optimal utilisation of primary care resources and mitigate the burden on higher-level health services.

Ethical approval

The study admitted ethical clearance from the Scientific Research Ethics Committee of Haydarpaşa Numune Training and Research Hospital (Protocol No: HNEAH-KAEK 2016/KK/89).

This study is based on the findings of our 2017 thesis, entitled "Evaluation of Knowledge, Attitude and Behavioral

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