## **Original Article**

# Challenges in the Development of the Family Health Workers (FHW) Role in Primary Health Care: A Qualitative Study

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#### **Abstract**

**Aim:** This study focuses on the barriers faced by family health workers in performing their professions and aims to reveal the perceived obstacles to their professional development during the provision of preventive health care for an individual from the perspective of family health workers.

**Methods:** In this study in which a qualitative design was used, the data were collected by in-depth interviews with 24 FHWs. The study data collected between January and April 2018 were separately coded and compared by following the thematic analysis process, and the themes were determined with the obtained codes.

**Results:** The results of the study indicate that many factors are perceived as obstacles to the professional development of FHWs. Three themes are defined as the result of the analysis; (a) social perception regarding FHWs, (b) field of application, (c) legislation and training infrastructure.

**Conclusions:** Strategies determined to cope with the obstacles of family health workers are expected to increase contribution to primary health care. In this direction, it is suggested that decision makers should conduct studies related to field of application and legislative infrastructure, present problems and find solutions. The clear role of FHWs is necessary to create field of application where they can work effectively as primary health care providers. Thus, better quality and effective health care services and the development of public health will be supported.

Keywords: barriers, general practice, family health workers, nurse practitioners, primary care

#### Introduction

According to the American Academy of Family Physicians (AAFP), "the term of primary care does not fully describe the activities of family physicians nor the practice of family medicine or, primary care departments do not replace the form or function of family medicine departments." (American Academy of Family Physicians (AAFP, 2019). In Turkey, with the Act of "Socialization of Health Services – Law No. 224" which was put into action in 1961, the health policies were established based on the

concept of social state and preventive health care services for families were organized according to population. In primary health care services, preventive and curative services for an individual and a community are carried out together by a team (doctor, nurse, midwife, health worker and others) (The Ministry of Health of Turkey, 2004; The Ministry of Health of Turkey, 2012). In 2004, the "Family Medicine Model" was introduced with the Act of "Family Medicine Pilot Implementation- Law No. 5258" within the context of Health Transformation Program in Turkey. The basis of the model is a "family

medicine unit" consisting of a family physician and a family health worker.

According to the Family Medicine Law, nurses, midwives, health officers (community health) and emergency medical technicians can work as family health workers who will provide service along with family physicians (The Ministry of Health of Turkey, 2012). According to the family medicine legislation, a family health worker identifies the health needs of an individual, family and community, which can be met by nursing initiatives in every environment, and plans, applies, evaluates and controls evidence-based nursing care within the framework of the needs determined within the scope of the nursing diagnosis process (The Ministry of Health of Turkey, 2004). A "family health worker (FHW)" working in a family health center in Turkey can be assessed within the context of "family health nurse" in terms of roles and responsibilities (Balci & Erol, 2016).

According to the World Health Organization, "family health nurses are the ones who spend most of their time working with individuals and families in their houses to help patients to cope with chronic illnesses and disabilities under stress". A family health nurse provides educational and supportive services to a family in bringing family health to the highest level, helps them to increase strength in care, provides cooperation with family members to support each other and takes an active responsibility in early diagnosis (WHO, 2000).

It is important to develop and support the role of family health nurses in primary health care services for the development of community health. As clearly stated in the literature, family health plays an important role in health development, immunization and chronic disease management (Poghosyan et al., 2013A; Poghosyan et al., 2017; Wilson et al., 2002).

Among health personnel, nurses have the most interaction with individuals in the provision of health care services. Successful implementation of any role development among nurses is based on a strong partnership among employers, and educational managers providers. Development of nursing roles in the field of application is one of the most important elements to reduce cost, improve quality of care and patient satisfaction. Identifying increase

occupational problems specific to the area of family health nurses and presenting proposals for solution are also important in terms of increasing the motivation to work (Allen et al., 2013).

As a consequence of the changes occurred in the health system of Turkey within the context of the "Health Transformation Program" (Akinci et al., 2012), health professionals has been affected significantly; in particular, unclear duties, authorities and responsibilities (Dogan, et al., 2013; Sonmez & Sevindik, 2013) of family health workers including nurses/midwives have created uncertainty in the working environment and conditions of these occupational groups working in primary health care services (Sonmez & Sevindik, 2013). Redesigning the primary care system is important for improving the health of a community by increasing productivity and encouraging motivation (Poghosyan et al., 2015).

Nurses working in primary health care services provide significant awareness in the process of reaching healthy individuals and families, as well as contributing significantly to health promotion and removal of health inequalities (Winters et al., 2007). The developments about the potential role of family health care workers will also contribute considerably to the development of community health. In this context, this study, through the perspective of family health workers, aims to reveal the obstacle perception of family health workers about their professional developments during the provision of preventive health care services by focusing on the challenges they encounter while practicing their profession.

# Methods

Sample and Data Collection: Qualitative research design was used in the study. FHWs were selected from family health centers (FHC) in Canakkale, Turkey. The participants were recruited using purposive and snowball sampling methods. The number of the sample size was determined based on the point of data saturation (Holloway and Wheeler, 2010). The study was completed by carrying out in-depth individual interviews with 24 FHWs who accepted to take part in the interview.

The interviews were scheduled according to the available time of the family health workers and carried out in an empty room in the family health center. The participant's informed consent was

obtained prior to each interview. The data were collected using the interview guide to direct the interview process. The study was conducted between January and April 2018, and a voice record was taken for each individual. In-depth interviews were conducted for a total of 30-50 minutes for each individual. In addition, the participants were asked to fill out a form asking for demographic information before the interview (Table 1).

**Ethical Considerations:** In order to conduct the study, Ethics Committee Approval Form from the Faculty of Medicine and the Rectorship of Canakkale Onsekiz Mart University (2011-KAEK-27/2017-E.21563) and institutional permission from Canakkale Governorship were obtained.

**Data Analysis:** Each individual in-depth interview was recorded and subsequently turned

into text. RDQA (R package for Qualitative Data Analysis) was used for data management, coding and analysis. We used thematic analysis in the tradition suggested by Braun and Clarke (2006). Two researchers read the transcribed data several times independently of each other.

#### Results

## **Participant Characteristics**

In Table 2, the characteristics of the participants were summarized. In-depth individual interviews were conducted with 24 FHWs. All the participants had nursing education. The average age of all the female participants is 42, 87.5% of them had university graduates and 79.2% are married. 62.5% of the FHWs participating in the study have over 20 years of working experience and have been serving as FHW for 7 years on average (Table 2).

**Table 1: Interview Guide Questions** 

## Questions

- 1. Which problems do you face when you work in the family health center?
- 2. What do you think are the obstacles in front of the nursing profession?
- 3. Do you have any future fears about your profession?
- 4. What are your suggestions for a better placement of the nursing profession?
- 5. Would you please describe your nursing roles?
- 6. From where and how do you get support to solve the problems you face when you are practicing your profession?

Do you think these supports are enough?

**Table 2: Characteristics of Family Health Workers Participants** 

Participants (n=24)
41.8 (5.5)
30.0-49.0
24 (100.0)

Married	19 (79.2)
Single	5 (20.8)
Education degree	
College	1 (4.2)
Bachelor	21 (87.5)
Master	2 (8.3)
Work characteristics	
Years in the current position (FHW)	
4- 5 years	5 (20.8)
6-10 years	18 (75.0)
> 10 years	1 (4.2)
Years in the profession	
8- 10 years	4 (16.7)
11- 20 years	5 (20.8)
> 20 years	15 (62.5)

#### **Themes**

At the end of the study, 3 main themes were determined; (a) social perspective about FHWs, (b) field of application, (c) legislation and training infrastructure.

Social Perception about FHWs: A significant number of the FHWs indicated that the attitudes and behaviors of citizens who were taking health care constituted a significant part of the obstacles to service provision. These negative attitudes and behaviors can vary from refusing to take action according to the rules of the procedure of the family health center or requesting an unfair treatment priority to severe aggressive behaviors such as verbal or physical violence.

As FHW 1 stated: During the service, everyone wants to be treated firstly ... not the elderly or the disabled, everyone.

Again, as FHW 4 with 28 years of professional experience stated: Most of the patients behave aggressive and assailant; they are also disrespectful... we struggle with verbal violence so much... families are very insensible. The prejudices of many people against us are very bad and we have almost no respect in their views.

The FHWs working in the family health center think that the people they serve do not have enough respect for their profession and that their current prestige is gradually diminishing. Especially as stated by FHW 8 and 10: Patients do not respect us and see us as servants... We have troubles in terms of security. Our reputation is getting worse and worse. This profession is hard; it needs self-sacrifice and conscience. We are not as worthy as doctors in the eyes of patients. Family health centers seem more comfortable than hospitals, but each unit has its own challenges. In the hospital, if you are on call, you will be sleepless. If you are in family health center, you will be sleepless to complete a 30-day performance. It is more than you can handle...

The fact that individuals do not know enough about family medicine practice often triggers a conflict between a patient and a FHW. The perception of family medicine services as providing treatment services for individuals rather than providing preventive services is a common perception in society. Nevertheless, the importance given to traditional practice continues to be challenged as a barrier to health care provision.

According to the statement of FHW 9: Because of the fact that patients do not know their family physicians they become angry with us, and this is the problem that we experience most often. Patient and patient relatives have prejudices against us... struggling with superstitious beliefs... most of the people are very insensible, their expectations from us are too much...

Because of the importance given to traditional practices in society and of the demand for treatment services as a health care service is widespread, there is resistance to a full understanding of family medicine practices. The interest of the community in health education, which is an important part of preventive health services for an individual, is very low. According to the statement of FHW 5 who has a 29-year professional life and who has worked as a FHW for 14 years

Citizens are trying to impose sanction on health care workers insensibly. It is difficult to explain the services we offer here and sometimes it is difficult to convince that the procedures they demand cannot be done in the family health center... Citizens do not prefer to attend our training activities.

Field of Application: According to the family medicine legislation, one of the duties of a FHW is defined as providing health development and preventive services, maternal and infant health and reproductive health services and as helping a family physician in the provision of medical home services. In practice, services in this area make FHWs spend a lot of time and effort.

According to the expression of FHW 4: Our workload istoo much. Injection, vaccinations, pregnant-baby follow-up, family...FHWs counseling, experience difficulties in reaching out to individuals during the implementation of performancebased maternal and infant health and reproductive health services and think that individuals should take responsibility for demanding these services.

According to the expression of FHW 7: Usually all sanctions are directed to midwives and nurses. The responsibilities in the patient follow-ups are tiring us. Since we are working on performance, we need to

constantly call patients by phone. This system increases the irresponsibility of patients. A family makes change in phone numbers or address and it becomes impossible for us to reach out to that family.

According to the expression of FHW 21: The fact that the unilateral sanctions imposed on us create inconveniences should be considered, and methods necessary for sharing responsibilities with families should be arranged in order to make families gain the responsibility for infant vaccination and follow-up practices which are included in the performance within a family medicine system to improve community health.

FHWs have also shown the reasons for increased workloads as such: the difficulties to have an access to individual health data related to the services they have in private or public hospitals; the unilateral health responsibility that family medicine practice is responsible for; and the difficulties to accessing individuals.

According to expressions of FHW 21 and FHW 24: The workload is increasing every day. It is important to access health records of individuals who were treated by private or public hospitals. The health care practices we have done differ in the practices and records of hospitals. For example, we are responsible for entering the records of vaccinations and follow-up applied, and the outer centers are not responsible for such issues.

In the family health center, there are electronic records of work and transactions carried out by family physicians, but there is no separate area where the records of the services provided by nurses are kept. This situation which leads to the inability to evaluate nursing services leads to the inability to evaluate the quality of service.

According to the statement of FHW 15:It is possible to provide a more professional work opportunity by planning nursing services according to the number of patients and evaluating the given care by keeping the security and the right to receive a quality care of individuals in the institution in advance.

Legislation and training infrastructure: Nurses who do not have a suitable environment to use

nursing roles in the implementation of protective health services for a person are in danger of losing their occupational identity over time. It is one of the problems that needs to be addressed by making amendments to legislation and putting it into practice in this context.

As FHW 5 and FHW 16 stated: I do not think that we run nursing profession enough in family medicine. I think that a big obstacle was put in front of us and thus the nursing relations (citizen-employee) are deteriorating.

We are doing a lot of work outside the definition of nursing profession. We have a heavy workload. We are experiencing problems with professional autonomy, which is one of the conditions required by the nursing profession.

In a similar interpretation of FHW 21: The absence of clear boundaries in the definition of roles and increasing workloads continues over time: the provision of primary health care services, cancer screening, bloodletting, injection, medical dressing, inpatient follow-up, family planning service, eve scan, screening hypothyroidism and phenylketonuria, hip dislocation screening, patient pressure monitoring, risk group adult vaccination, heat follow-up, vaccination stock follow-up, FHC order follow-up, used drug stock and end use follow-up, sterilization follow-up, calibration of devices, counseling services when the secretary is on holiday...

In the primary health care service, the job descriptions of nurses working in the family health center are not clear and there is a confusion of professional concepts. According to FHW 5, "Awareness about that fact that nursing is a profession should be imposed on everyone. Nowadays, the word "nurse" has been identified such names as secretary=patient caregiver=assistant personnel= doctor assistant. In fact, here has become a place where citizens come and go when they get bored". Alongside these challenges in practicing their professions, FHWs are also concerned about their future.

For example, as FHW 8 stated, "Our profession is a tiring profession. Retirement age is very high and our health problems

are increasing with age. Due to the performance, we cannot spend time for ourselves and our health. When we go to the hospital or when we go on a holiday, we always have to postpone (in our work) or find a friend to follow our work. These situations seem to prevent us from having a healthy retirement".

In addition, nursing education before and after graduation and additional arrangements related to the training of other health personnel working in primary health care services are needed. While private medical vocational high schools are an obstacle to the development of the profession, especially the sense of teamwork is an important concept that must be put in place among the employees.

As FHW 20 stated: I do not think that the policies of the Ministry of Health (MoH) support employees. Current approaches prevent the nursing and midwifery profession from having the deserved value. We have less respectability in society than in previous years. The increase in the number of private medical vocational high schools has reduced the quality of education. Our profession has started to be perceived as an easy job with a high salary.

Similarly, FHW 19 stated: *It should be accepted that health work is a team work... the upgrading of the education level...* 

#### **Discussion**

Nursing has been emphasized in the literature as a professional occupation that can make an important contribution to primary health care services (Kemppainen et al., 2013). According to the World Health Organization, nurses are the occupational group that can make an important contribution to primary health care and can be a pioneer in increasing the quality of care (ICN, 2008). In the "Directive Regarding Implementation of the Service in the Regions Where the Health Services are Socialized" numbered 154 based on Law No. 224 which entered into force in Turkey in 1963, the occupational group to be employed in primary health care services is defined as public health nurse.

However, public health nursing, defined by its legislation as a very broad mandate, authority and

responsibilities, has never been conducted as it is expected. In Turkey, public health nursing services are not like a title acquiring post-graduate education or certificate as in western countries but are carried out mostly by nurses and midwives who are only high school graduates (The Ministry of Health of Turkey, 2012). With the Health Transformation Program, which was put into practice in 2003, primary health services carried out by health centers started to be carried out by family physicians.

In the family medicine model implemented in Turkey, preventive health services with diagnosis in the early stages and treatment and rehabilitation services are carried out in family health centers, while other tasks including social preventive health services are carried out in community health centers. In addition to nurses and midwives in family health centers, health officers (community health) and emergency medical technicians can also work as family health workers (The Ministry of Health of Turkey, 2012). In this context, with the family medicine practice, which is one of the most important components of the Health

Transformation program, existing nursing roles in primary health care services have changed significantly (Harmanci Seren & Yildirim, 2013). This health professional group, defined as family health worker, is closer to the concept of family health nurse in terms of roles and responsibilities (Balcı &Erol, 2016). This qualitative descriptive study investigated the challenges to the development of the role of FHW in individual primary health care services and explored how FHWs identified many factors that, in their view, affected these roles.

The incidence of violence during the provision of primary health care services has increased in recent years (Uysal & Devebakan, 2017), and this has also been shown as an obstacle in performing FHW roles of family health workers. The fact that individuals do not know enough about family medicine practice often triggers the conflict between the FHW and the patient. It is the truth that there are differences between client' perception and health care providers' perceptions of health care (Abuosi, 2015; Aytar et al. 2017; Europen Patient Forum, 2017; Haddad et al., 2000). In addition, the importance given to traditional practices continues to be another

important obstacle to the provision of primary care.

Primary health care services are a continuously improving approach that encourages people to become healthy by increasing their engagement in health care (Ferreira et al., 2016). Taking too much responsibility from family health workers in the provision of services based on performance, especially in the family medicine system, can create an obstacle for the community to take its own health responsibility. In this context, for example, participation in the service of society can be ensured by making different legal arrangements for individuals who do not make the address change notification and do not follow the vaccination follow-ups (Uysal &Devebakan, 2017).

Another reason for obstructing the use of the roles of FHWs is the lack of access to the health care data of individuals enrolled in family medicine regarding the services carried out in private or public hospitals. The accessibility of the data regarding primary health care services like pregnancy monitoring in secondary health care and vaccinations can contribute to the resolution of problems such as inconsistency of hospital and FHC data and excessive workload.

The overloaded workload, which has been so much mentioned by family health workers, as in the study conducted by Uysal & Devebakan (2017), has also showed itself as another obstacle in performing FHW roles in our study. Services provided by family physicians can electronically registered to the FMIS (Family Medicine Information System) (The Ministry of Health of Turkey, 2016), but there is no separate area for nursing records. This situation which leads to the inability to evaluate FHW services leads to the inability to evaluate the quality of service. It is important to register these works so that the work done by FHWs can be seen in the health care system and their value is recognized. Electronic registration systems, which help to assess the effectiveness of FHW services, increase the power of FHWs (Jones et al., 2010).

A scientifically validated electronic system and software that can collect data and can be used by FHWs in primary health care services (Erdogan & Esin, 2006) are also available (Nightingale Notes, 2018). The use of existing software or similar software development and

implementation is important in terms of the visibility of services provided by FHWs.

The fact that a family health worker who works in (FHC) is able to perform occupations other than the nursing profession faces the risk of uncertainty in the primary health care services of the nursing staff. This situation can also be interpreted as one of the important factors that cause nurses to think that they are not sufficiently respected by the people they serve and that their current dignity is gradually diminishing. According to the results of the study conducted by Sonmez and Sevindik (2013) on social media. nearly half of the employees working as family health workers were pleased with this definition, while 48% of the participants of this study were nurses and those who had more professional work experience duration were more dissatisfied with this statement. In the study conducted by Dogan et al. (2012) where 73% of the employees working as family health workers were midwives, it was observed that awareness in terms of the preventive health services of family health workers was low. The clear definition of FHW roles in primary health care services, including primary health care services in preservice education for health professionals who will serve as FHW except nurses, overcoming professional confusion in this area are important in order to increase the quality of primary health care services (Poghosyan et al.,2013B; Poghosyan et al., 2015; Wilson et al., 2002; Winters et al., 2007).

The World Health Organization recommends that nurses should take an active role in primary health care planning, management, training and research activities and that more attention should be paid to primary care services in nursing education (ICN, 2008). Teamwork is one of the important components of the family medicine as well as the role of educated FHWs in primary health care services (Maun et al., 2014). The establishment of the team concept and the working system in family health centers will also open the way for FHW roles to be used competently.

#### Conclusion

The results show that there are certain obstacles to the development of community health and to the development of the role of family health workers in the provision of primary health care

service. These obstacles regarding social perception about FHW can be summarized under the title of the negative attitudes and behaviors of the society, the inadequate perception of the family medicine model of the society, the importance given to traditional practices and the lack of demand for the service offered. In terms of field of application, the obstacles can be summarized as the excessive workload, the performance system, the failure community to take responsibility for their own health, the difficulty in accessing the health data provided in secondary health care services and the lack of data record in nursing services. In the legislation and training infrastructure, the obstacles can be summarized as the lack of clarity in the roles of FHWs, concerns about future (retirement etc.), inadequate educational content of private medical vocational high schools and not seeing the profession as a team work. While it is known that there is a need to examine many factors outside of the obstacles put forward here, the strategies to cope with these obstacles will increase the contribution of family health workers to primary health care services in Turkey. In this direction, decision makers should conduct studies about field of application and legislative infrastructure, and problems should be revealed and solutions should be sought.

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## References

Abuosi, A. A. (2015) Patients versus healthcare providers' perceptions of quality of care: Establishing the gaps for policy action. *Clinical Governance: An International Journal*, 20(4), 170-182

Aytar, O., Tillgren, P., Söderlund, A., Bogg, L., Akhavan, S. (2017). Health care providers perceptions about and experiences of achieving equitable health care: an evaluation study. *Quality in Primary Care*, 25(5), 289-296.

Allen, K., McAleavy, J. M., & Wright, S. (2013). An evaluation of the role of the assistant practitioner in critical care. *Nursing in Critical Care*, 18(1), 14-22.

Akinci, F., Mollahaliloglu, S., Gürsöz, H., & Oğücü, F. (2012). Assessment of the Turkish health care system reforms: A stakeholder analysis, *Health Policy*, *107*(1), 21-30.

American Academy Of Family Physicians (AAFP). Retrieved from

- (https://www.aafp.org/about/policies/all/primary-care.html#5). Date of access: April 9, 2019.
- Balci, A. S., & Erol, S. (2016). Being a nurse instead of personnel in a family health center. *Journal of Education and Research in Nursing*, *13*(3), 244-249. Retrieved from https://www.journalagent.com/kuhead/pdfs/KUHE AD\_13\_3\_244\_249.pdf (Original work published in Turkish).
- Braun, V., & Clarke, V. (2006) Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77-101.
- Dogan, N., Sensoy, N., Mardin, E. E., Ucur, I., & Ozbalci, T. (2013). The Prospects of Family Health Center Personnel About Family Practice, *Journal of Clinical and Analytical Medicine*, 4(2), 112-115. doi:10.4328/JCAM.942 (Original work published in Turkish).
- Europen Patient Forum. (2017). Patients' Perceptions of Quality in Healthcare. Retvieved from: http://www.eu-patient.eu/globalassets/policy/quality-of-care/quality-survey-report.pdf.
- Erdogan, S., & Esin, N. (2006). The Turkish version of the Omaha System: Its use in practice-based family nursing education. *Nurse Education Today*, 26(5), 396-402.
- Ferreira, J. M., Kulbok, P. A., & Silva, C. A. B. (2016). Improving primary health care: A systematic review. *Journal of Family Medicine & Community Health*, 3(3), 1083.
- Nightingale Notes (2018). Retrieved from https://www.nightingalenotes.com/
- Haddad, H., Potvin, L., Roberge, D., Pineault, R., & Remondin, M. (2000). Patient perception of quality following a visit to a doctor in a primary care unit. *Family Practice*, 17(1), 21-29.
- Harmanci Seren, A. K., & Yildirim, A. (2013). Privatization: Privatization in health and nurses. *Journal of Anatolian Nursing and Health Science*, 16(2), 123-131. Retrieved from http://dergipark.gov.tr/ataunihem/issue/2661/3440 4 (Original work published in Turkish).
- Holloway, I., & Wheeler, S. (2010). Qualitative research in nursing and healthcare. West Sussex, UK: John Wiley and Sons Ltd.
- International Council of Nurses. (2008). Nursing perspectives and contribution to primary health care. Geneva: International Council of Nurses. Retrieved from http://www.icn.ch/images/stories/documents/publi cations/free\_publications/primary\_health\_care.pdf
- Kemppainen, V., Tossavainen, K., & Turunen, H. (2013). Nurses' roles in health promotion practice: an integrative review. *Health Promotion International*, 28(4), 490-501.
- Jones, D., Lunney, M., Keenan, G., & Moorhead, S. (2010). Standardized nursing languages: essential

- for the nursing workforce. *Annual Review of Nursing Research*, 28, 253-94.
- Poghosyan, L., Nannini, A., Finkelstein, S. R., Mason, E., & Shaffer, J. A. (2013A). Development and psychometric testing of the nurse practitioner primary care organizational climate questionnaire. *Nursing Research*, 62(5), 325-334.
- Poghosyan, L., Nannini, A., Smaldone, A., Clarke, S., O'Rourke, N. C., Rosato, B. G., & Berkowitz, B. (2013B). Revisiting scope of practice facilitators and barriers for primary care nurse practitioners: a qualitative investigation. *Policy, Politics, & Nursing Practice, 14*(1), 6-15.
- Poghosyan, L., Norful, A. A., & Martsolf, G. R. (2017). Primary care nurse practitioner practice characteristics: Barriers and opportunities for interprofessional teamwork. *The Journal of Ambulatory Care Management*, 40(1), 77.
- Poghosyan, L., Shang, J., Liu, J., Poghosyan, H., Liu, N., & Berkowitz, B. (2015). Nurse practitioners as primary care providers: Creating favorable practice environments in New York State and Massachusetts. *Health care management review*, 40(1), 46-55.
- Sonmez, M. O., & Sevindik, F. (2013). The effect of transformation in health on health personnel: To be family health personnel. *TAF Preventive Medicine Bulletin*, 12(1), 43-48. doi: 10.5455/pmb.1-1337859309 (Original work published in Turkish).
- Maun, A., Engström, M., Frantz, A., Brämberg, E. B.,& Thorn, J. (2014). Effective teamwork in primary healthcare through a structured patient-sorting system a qualitative study on staff members' conceptions. *BMC Family Practice*, 15, 189.
- Ministry of Health. (2004, December 09). Family medicine law. Retrieved from http://www.mevzuat.gov.tr/MevzuatMetin/1.5.525 8.pdf (Original work published in Turkish).
- The Ministry of Health of Turkey (2012). Turkey health transformation program assessment report (2003-2011). Ankara: T.C. Sağlık Bakanlığı. Retrieved from https://sbu.saglik.gov.tr/Ekutuphane/Yayin/452.
- Ministry of Health (2016). Minimum data modeling of the family medicine information system. Retrieved from https://dosyamerkez.saglik.gov.tr/Eklenti/11483,ah bs-vem-sonpdf.pdf?0 (Original work published in Turkish).
- Uysal, F., & Devebakan, N. (2017). Assessment from the perspectives of health family center's workers to family medicine practice. *The Journal of Academic Social Science Studies*, 58(2), 287-305. doi: 10.9761/JASSS6972 (Original work published in Turkish).
- World Health Organization. (2000). The family health nurse context, conceptual framework and

- curriculum 2000. Retrieved from http://apps.who.int/iris/handle/10665/107930 .
- Winters, L., Gordon, U., Atherton, J., & Scott-Samuel, A. (2007). Developing public health nursing: barriers perceived by community nurses. *Public Health*, *121*(8), 623-633.
- Wilson, A., Pearson, D., & Hassey, A. (2002). Barriers to developing the nurse practitioner role in primary care—the GP perspective, *Family Practice*, *19*(6), 641-646.