

## Knowledge, Beliefs and Attitudes of Turkish Patients on In-Center Hemodialysis Toward Home Hemodialysis: A Pilot Study

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### Abstract

This pilot study aimed to determine the knowledge, beliefs and attitudes of Turkish patients on in-center hemodialysis about home hemodialysis (HHD) and their related factors. A cross-sectional study was performed among 32 patients on in-center hemodialysis in a tertiary hospital in Turkey. Data were collected by using a questionnaire form including sociodemographic and disease-related characteristics and knowledge, beliefs and attitudes about HHD. Data analysis were performed using descriptive statistics and the Chi-square test. While the majority of the patients (65.6%) reported having knowledge about HHD, only 34.4% of them had ever considered it. The most common perceived benefits of HHD were minimized wasted time (71.9%) and more time spent with family (71.9%). The most common perceived barrier to HHD was also housing constraints (90.6%). The results of this study highlight the importance of recognizing knowledge, beliefs and attitudes toward HHD in patients on in-center hemodialysis for increasing the use of the treatment.

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**Running Title:** Home hemodialysis

**Keywords:** attitudes, beliefs, end-stage renal disease, home hemodialysis, knowledge

**Received:** Jan 13, 2018

**Accepted:** Feb 13, 2018

**Published:** Feb 19, 2018

**Editor:** Neslihan Lok, Selcuk University faculty of Health Sciences, Turkey.

## Short Communication

End-stage renal disease is a serious health problem in the worldwide and in Turkey [1,9,13]. It is well known that home hemodialysis (HHD) contribute to better quality of life and survival in patients with end-stage renal disease than in-center hemodialysis [2,10]. Blogg and Hyde [2] reported that the clinical benefits of nocturnal (longer hours) HHD are improvement in well-being and energy levels as well as diet control. According to Perl and Chan [10], "early patient referral, appropriate patient selection, education, and home preparation are integral components of a successful home dialysis program" (p. 1171). However, several problems with system and social barriers limit the widespread use of HHD [10]. The use of HHD in Turkey is also relatively very low [13]. Thus, recognizing and addressing problems that are perceived by patients on dialysis as barriers to HHD is important [6-8]. Nonetheless, few studies have dealt with this issue [3-5,11,12]. To the best of our knowledge, there is no study on what are the beliefs about HHD among Turkish patients on dialysis. Therefore, the purpose of this pilot study was to determine the knowledge, beliefs and attitudes of Turkish patients on in-center hemodialysis toward HHD and their related factors.

This cross-sectional study was conducted between November 2016 and May 2017. A convenience sample of patients on hemodialysis who were followed in a nephrology clinic within a tertiary hospital in Turkey were enrolled in this study. Patients aged 18 years or older on hemodialysis for at least 1 month and those who were able to communicate in Turkish were included in the study. Exclusion criteria were cognitive impairment, history of major psychiatric disorder, and clinical instability. Of the 34 eligible patients on in-center hemodialysis, 32 (78.1% male) agreed to participate (response rate: 94.1%). The Hospital Ethical Committee approved the study protocol (No. 1648-1236), and written informed consent was obtained from each patient. Data were collected by using a questionnaire form consisting of two parts: Part 1: the sociodemographic and disease-related characteristics, and Part 2: the knowledge, beliefs and attitudes about HHD. The form was developed based on a comprehensive review of the relevant literature [3-8,10-12]. Data were collected by face-to-face structured interviews with the patients that

lasted between 15 and 20 minutes during hemodialysis session. Data analyses were performed using descriptive statistics (means, standard deviations, ranges, frequency distributions, and percentages) and the Chi-square test. P values less than 0.05 were considered statistically significant in the study.

The mean age of the patients on in-center hemodialysis was  $51.2 \pm 15.6$  years (range = 21-76), and the median hemodialysis vintage was 20 months. More than half of the patients (53.1%) were graduated from high school and university. The majority of the patients were married (78.1%), not working (87.5%), and had been lived with family members (96.9%). About 31.0% of the patients had an inadequate-income and 68.8% had middle- or adequate-income. Most of the patients (81.3%) had a caregiver. Nineteen patients (59.4%) had a comorbid condition (57.9% hypertension, 47.4% cardiac disease, and 47.4% diabetes). More than half of the patients (59.4%) evaluated their health as fair or poor.

Although the majority of the patients (65.6%) reported having knowledge about HHD, it is noteworthy that only one-third of them (34.4%) had ever considered it. Doctors (47.6%) and nurses (42.6%) were mentioned as the main sources of information about HHD by the patients. Family members and friends (33.3%) and television, radio and the Internet (9.5%) were also mentioned as sources of information. The sociodemographic and disease-related characteristics of the two groups (patients who had ever considered HHD vs. those who had not considered HHD) were statistically compared. The results of the Chi-square test showed that there were no significant differences between the two groups ( $p > 0.05$ ). Eighteen patients (56.3%) reported that they want to give knowledge about HHD from the healthcare professionals. Previous studies indicate that patients with predialysis phase of chronic kidney disease who have given information on all dialysis modalities are more likely to commence home dialysis [8].

Patients on in-center hemodialysis reported on several benefits of HHD, including minimized wasted time due to reduced travel time (71.9%), more time spent with family (71.9%), a feeling of flexibility and freedom (65.6%), reduced waiting time for dialysis

treatment (59.4%), and more privacy (59.4%). On the other hand, the most common barriers to HHD perceived by the patients on in-center hemodialysis were inadequate housing conditions (90.6%), family burden (87.5%), the need of family support in order to maintain optimal treatment process (87.5%), the fear of self-cannulation (81.3%), and lack of expertise and experience with HHD program in dialysis nurses and technical staff (81.3%). These findings are consistent with other studies [3-8,11,12].

This study has some limitations due to its design, and sample size. The results therefore cannot be generalized to other Turkish patients on in-center hemodialysis. A better understanding of the knowledge, beliefs and attitudes toward HHD of patients on hemodialysis would help healthcare professionals to provide better support and tailored interventions to them.

### Acknowledgments

The authors thank all the patients who participated in this study.

### Conflict of interest:

The authors declare that there are no conflicts of interest.

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