

Patients' Experience of Undergoing Peritoneal Dialysis about entered Peritoneal Dialysis: A Qualitative Study on Iranian Patients'

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ABSTRACT

Abstract : Training and involving patients, especially patients with chronic renal failure, in the selection of treatments can effectively increase their satisfaction with treatment and life expectancy and also improve their quality of life. This study hence aimed to explain Iranian patients' experience of undergoing peritoneal dialysis (PD). This qualitative study was conducted based on the conventional content analysis. Based on the review and analysis of transcribed interviews, three main categories were extracted from patients' experience: 1- random familiarity with PD, 2- mandatory familiarity with PD, and 3- optional familiarity with PD. Based on the study findings, it can be concluded that none of the RRT methods is superior to the others. All patients with CKD should receive enough information about different types of RRT before undergoing dialysis, so that they can more easily adapt to the treatment, enjoy a higher quality of life, and experience a higher quality of life.

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INTRODUCTION

Chronic kidney disease (CKD) is considered a major public health problem worldwide. Data show that 60% of patients with CKD begin dialysis in an unplanned manner when they do not have definitive access to this treatment. Peritoneal dialysis (PD) has been recently introduced as an alternative to unplanned chronic dialysis, and the global collective experience indicates that PD can be an efficient, safe, and cost-effective alternative to hemodialysis (HD) that can produce acceptable therapeutic results (Dias, Mendes, Alves, Caramori, & Ponce, 2020). Despite the great efforts made by the nephrology community, most CKD patients begin renal replacement therapy (RRT) in an unplanned manner (Radhakrishnan et al., 2014). About 60% of patients in Brazil begin dialysis in an unplanned manner using a central venous catheter (CVC) (Sood et al., 2014). Studies on patients under PD show that this treatment choice can greatly change patients' lives. Physical symptoms of CKD, as well as social isolation and unpredictable course of the disease, make such patients suffer from emotional and/or social disorders (Ghaffari, 2012; Javaid, Lee, Khan, & Subramanian, 2017). Under these circumstances, patients have no choice but to follow their physician's prescription. It is hence necessary to provide CKD patients with the relevant information to help them select RRT optionally and prevent post-treatment problems (Ghaffari, 2012). There are limited training resources about RRT decisions. Patients progressing to end-stage renal disease (ESRD) need to select one of the various treatment options with different characteristics. Patients should be provided with complete information on various treatment choices to meet their training and informational needs. Decision-making about treatment choices also requires the involvement of the patient's family members, because families often participate in the treatment of patients and support their decisions. Therefore, the involvement of families in this course can increase treatment adherence and improve patients' quality of life (Ameling et al., 2012). Studies have shown that kidney transplantation is the best alternative to RRT with the fewest complications, HD is still the most common treatment for such patients because it can be urgently initiated using a CVC in most medical centers (Buck et al., 2007; Cooper et al., 2010; Liebman, Bushinsky, Dolan, & Veazie, 2012). Evidence and data suggest that most patients who begin dialysis urgently and mandatorily using a CVC are old, suffer from underlying

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diseases, and have serious health status when admitted to a medical center(Han et al., 2021). It is noteworthy that despite the rapid growth in the number of Asian patients undergoing PD, only 4% of ESRD patients in Iran select this treatment for unknown reasons(Lee et al., 2019). Although many studies have reviewed Iranian patients' experience of dialysis(Ilali, Kamrani, Peyrovi, Sahaf, & Spahbodi, 2018; Sulistyaningsih, Nurachmah, Yetti, & Priyo Hastono, 2020), a few studies have dealt with patients' experience of undergoing PD. Moreover, a few in-depth studies have investigated Iranian patients' experience of undergoing PD through qualitative methods.

METHODS

Design

This qualitative study was conducted using a conventional content analysis approach. Data were collected from PD clinics located in four provinces of Iran, including East Azerbaijan (East), South Khorasan (Northeast), Sistan and Baluchestan (Southeast) and Razavi Khorasan (Northwest).

Participants included 18 PD patients who had undergone PD for at least the last six months and were willing to participate in the study. The mean age of participants and duration of PD was 46.12 and 6.19 years, respectively. Other characteristics of participants were as follows: 10 were male; 12 were Shia muslim; 10 were married; 9 had primary education; and 10 had a history of PD. The distribution of participants based on provinces were as follows: Sistan and Baluchestan (n = 7), South Khorasan (n = 5), Razavi Khorasan (n = 3) and East Azerbaijan (n = 3). The participants were selected purposively. The first two participants had a 4-year history of PD and had a high degree of flexibility in expressing their experiences. Other participants were selected based on the analysis of previous interviews and in a way that could better clarify the questions and ambiguities resulting from previous interviews. The authors attempted to employ the maximum-variation sampling method in terms of age, sex, level of education, religion, and sampling location to fulfil the principles of purposive sampling. Data collection was continued until saturation was reached. Saturation was achieved when additional interviews no longer added new concepts.

Data collection

Data were collected using open-ended, face to face and semi-structured interviews. The interviews were conducted on an individual basis in a private room. Interviews were conducted at participants' home (n = 10), the main researcher workplace (FB) (n = 5), and the hospital (n = 3). In order to reduce participants' anxiety, they were asked to answer one or two general questions prior to beginning each interview such as: How did you get into peritoneal dialysis? Tell me about your experiences with peritoneal dialysis, if possible.

Then main questions were asked including: Please tell me more about your experience in the early days after PD? Please tell me what happened during the dialysis process? The probing questions were then posed based on the participants' answers. These questions were asked to clarify the meaning of previous interviewees' statements, such as: Who? What? How? Why? and what was the result? The second interview was conducted with 5 participants to clear up any ambiguity and to clarify further.

All interviews were conducted in Persian or Baluchi and analyzed in Persian. We translated some of the participants' sentences into English semantically. All interviews were recorded and transcribed. The mean duration of initial interviews was 55 minutes (range 40 to 75), and that of follow-up interviews was 25 minutes (range 10 to 41).

Data analysis

Data analysis was undertaken simultaneously with data collection. Data were analyzed using the conventional content analysis method as described by Graneheim and Lundman (2004). The analysis included a thorough reading of the transcribed text to identify meaning units, i.e. statements that were related to the topic of analysis (experiences of PD patients). The meaning units were condensed, abstracted, coded and then categorized according to similarities and differences in content (Graneheim & Lundman, 2004).

Trustworthiness

The trustworthiness of the data was checked according to Lincoln and Guba's four criteria, namely credibility, dependability, confirmability, and transferability (Lincoln & Denzin, 2005). Credibility was achieved by the continuous presence of the main researcher in the research environment and ongoing discussion of the findings in the research group. Transferability was accomplished by sampling with maximum diversity. Dependability was ensured by having more than one researcher undertaking the analysis. All members of the author group worked together in data analysis. Confirmability was accomplished by an audit trial of all research activities.

Ethical Considerations

This study was approved by the Ethics Committee of Tabriz University of Medical Sciences (Reference No: TBZMED.REC.1399.814). All participants received verbal and written information about the study and gave their written consent for the interviews. They were free to terminate the interview if they wished.

FINDINGS

Based on the review and analysis of transcribed interviews, three main categories were extracted from patients' experience: 1- random familiarity with PD, 2-mandatory familiarity with PD, and 3- optional familiarity with PD.

| Category | Subcategories |
|-------------------------------|---|
| Random familiarity with PD | Familiarity by observing the experience of family members |
| | Familiarity through peers |
| Mandatory familiarity with PD | Rejection of other treatments |
| | Lack of authority |
| Optional familiarity with PD | Information acquisition and deliberate choice |
| | Knowing about the course of chronic diseases |

Random familiarity with DP: This category included two subcategories: "familiarity by observing the experience of

family members” and “familiarity through peers”. Only two participants (11%), who were young and single, had gotten familiar with DP through their family members.

“Did you first ask your physician to prescribe PD for you? How? Would you explain more? Since two of my family members were undergoing PD, I knew what PD was and also the differences between PD and HD. I had also observed my sister undergoing HD. Therefore, I completely knew both treatments, and I decided to choose DP.” (Participant 9).

Three participants (15%) had gotten familiar with DP through their peers. Most of them had a negative experience of HD.

“One day while I was undergoing HD, I asked the patient next to me what he/she was doing there. He/she responded that after three years of undergoing PD, he/she had found out that there was a problem with his/her bladder; therefore, he/she had to remove his/her dialysis tubing for bladder surgery. He/she said that he/she had to undergo

HD after the surgery but he/she did not like that treatment, he/she wished he/she could still continue PD. He/she also stated that PD was much easier than HD because it required intonation only once.” (Participant 11).

The results showed that 36% of participants had chosen and begun DP through random familiarity with this treatment and all of them were satisfied with their choice.

Mandatory familiarity with DP: This category included two subcategories: “rejection of other treatments” and “lack of authority”. The main reasons for rejecting other treatments were no indication for HD, transplant rejection, and lack of proper venous, vascular, or arterial access. Some participants also stated that DP was the only treatment choice for them because other dialysis centers were away from their place of residence.

“Razi Hospital, which is 5-6 km² away from our house, provides only HD services. I underwent HD there several times, but I decided to choose DP because that hospital was away from our house and it was difficult for us to get there.”

The results showed that 27% of participants, most of whom were old, had chosen and continued PD through the rejection of other treatments.

Optional familiarity with PD: This category included “information acquisition and deliberate choice” and “Knowing about the course of chronic diseases”. The results indicated that 37% of participants were involved in choosing the type of treatment they received. The participants who deliberately sought information about different types of treatment were completely satisfied with the selected treatment; in fact, they could better deal with PD because they employed problem-solving methods to adapt to the disease. It is noteworthy that all of these participants were educated; they were first briefed on PD and HD by their physician, and then they tried to acquire more information by observing the patients undergoing PD, talking to medical staff, or through the Internet. They finally decided to choose PD and were highly satisfied with their choice.

“I had headaches during HD; my physician and the medical staff suggested me try PD. Since my brother was also undergoing PD,

I decided to begin this treatment. I’m really satisfied with this new option.” (Participant 3)

Some participants were afflicted with CKD for years before they begin dialysis, and they were fully aware of the course of the disease and the need for RRT based on the information they had received from their physicians and nurses. Since they knew that they should undergo either dialysis or a kidney transplant to treat their CKD, they were actively involved in choosing the type of treatment. One of the participants stated that he/she had applied for a kidney transplant many years ago depending on the information acquired about the course of his/her disease and the choice of treatment; therefore, he/she had undergone a kidney transplant as soon as his/her disease reached an advanced stage. He/she also stated that he/she was satisfied with this treatment choice.

“When I was a child, physicians had told my mother that I had urinary reflux. We had also a familial history of renal failure, and my brother was undergoing dialysis at the time. Since we knew that my kidneys would gradually fail over time, we got a letter from my physician to register my name on the waiting list for a kidney transplant. My mother was the donor because her kidney was completely compatible with mine. Therefore, I had a kidney transplant once the physician told me that my kidneys were out of whack. Now I’m satisfied with this decision.”

DISCUSSION

The study findings suggested that ESRD patients will be more satisfied with and adapted to the type of treatment when they can play a role in choosing RRT. The results showed that 37% of participants were involved in selecting the type of treatment through acquiring information about the course of the disease or different types of treatments from their treating physician, medical staff, internet, in consultation with family members and the treating physician. Patient participation in care decisions and disease management for chronic diseases is associated with higher patient satisfaction and better treatment outcomes (Manouchehri, Zagheri-Tafreshi, Nasiri, & Ashrafi, 2018). However, a study about the effects of an intervention based on barrier elimination on patients’ knowledge about and desire for PD showed that this intervention could not affect patients’ desire for undergoing PD (Salehi, Dianti, Mehrabi, & Azizi-Fini, 2019; Wasse, 2017), which is not consistent with the findings of this study. This discrepancy can be attributed to other important factors such as the patient’s attitude towards dialysis, greater application of HD, and, most importantly, disclaimer of the patient. It is noteworthy that since most patients are admitted to the hospital when they are in an emergency, the only treatment option for them is HD using a CVC (Marrufo G, 2020). As mentioned in this study and some previous ones, when it is decided to use a CVC in the operating room, the patient’s arteries are examined and a hemodialysis venous arterial fistula is placed for the patient (Santoro et al., 2014; Sohail, Vachharajani, & Anvari, 2021). Based on the experiences of participants, patients are recommended to undergo PD when they have no indication for HD or there is no adequate vascular access. Some studies have shown that 80% of patients admitted to the emergency units undergo dialysis using CVC. The participants of this study stated that CVC was prescribed for them as the last resort for emergency treatment (Sohail et al.,

2021). About 36% of participants had gotten familiar with PD by chance or by observing the experiences of their family members and peers. Some other studies have also confirmed the positive effects of learning from peers (Pålsson, Mårtensson, Swenne, Ädel, & Engström, 2017; Shaikh & Nadar, 2018).

CONCLUSION

Based on the study findings, it can be concluded that none of the RRT methods is superior to the others. All patients with CKD should receive enough information about different types of RRT before undergoing dialysis, so that they can more easily adapt to the treatment, enjoy a higher quality of life, and experience a higher quality of life.

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