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Sexual Problems of Women with Kidney Transplant: A Qualitative Study

Böbrek Nakli Olan Kadınların Cinsel Sorunları: Nitel Bir Çalışma

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ABSTRACT

Objective: This qualitative study aimed to explore the experiences, perspectives, and challenges faced by women who underwent kidney transplantation, particularly regarding the impact of transplantation on their own and their partner's sexual lives.

Methods: The study was conducted with 15 women who had received kidney transplants at a private hospital in İstanbul. Data were gathered using a two-part semi-structured interview form developed by the researcher based on a review of the relevant literature. The data obtained from the interviews were analyzed using content analysis. Data analysis was carried out concurrently with data collection. This study adhered to the consolidated criteria for reporting qualitative research.

Results: Based on a thematic analysis of the interviews, four main themes emerged: concerns about reproductive health, including subthemes of fear of infertility and anxiety about pregnancy; disease-associated sexual reluctance, including subthemes of reduced sexual interest, fatigue, weakness, sleep disturbances, and depression; perception of femininity and body image, including subthemes of feelings of incompleteness and inadequacy; concerns about the spouse/partner, including subthemes of fears about being unable to meet the sexual needs of the spouse/partner and feelings of guilt related to their partner's sexual dissatisfaction.

Conclusion: In conclusion, sexual dysfunction continues to persist among women even after kidney transplantation due to various physical and psychological factors. To support patients in

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Amaç: Bu nitel çalışma, böbrek nakli yapılan kadınlarda, naklin kendi ve partnerlerinin cinsel yaşamları üzerindeki etkisine ilişkin deneyimlerini, bakış açılarını ve karşılaştıkları zorlukları araştırmayı amaçlamaktadır.

Yöntemler: Çalışma, İstanbul'daki özel bir hastanede böbrek nakli olan 15 kadınla yürütüldü. Veriler, araştırmacı tarafından ilgili literatürün incelenmesine dayanarak geliştirilen iki aşamalı yarı yapılandırılmış görüşme formu kullanılarak toplandı. Görüşmelerden elde edilen veriler içerik analizi kullanılarak analiz edildi. Veri analizi veri toplama ile eş zamanlı olarak gerçekleştirildi. Bu çalışma, nitel araştırma raporlama için konsolidasyon kriterlerine uymuştur.

Bulgular: Görüşmelerin tematik analizi sonucunda dört ana tema ortaya çıktı: anne olamama korkusu ve gebelik kaygısı alt temalarını içeren üreme sağlığı ile ilgili endişeler; cinsel ilginin azalması, yorgunluk, halsizlik, uyku bozuklukları ve depresyon alt temalarını içeren hastalıkla ilişkili cinsel isteksizlik teması; eksiklik ve yetersizlik duyguları alt temalarını içeren kadınlık algısı ve beden imajı; eşin/partnerin cinsel ihtiyaçlarını karşılayamama korkusu ve partnerinin cinsel tatminsizliği ile ilgili suçluluk duyguları alt temalarını içeren eş/partner ile ilgili endişeler.

Sonuç: Sonuç olarak, çeşitli fiziksel ve psikolojik faktörler nedeniyle böbrek naklinden sonra bile kadınlarda cinsel işlev bozukluğu devam etmektedir. Hastaların genel refahlarının bir parçası olarak sağlıklı bir cinsel yaşam sürdürmelerini desteklemek için, cinsel

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ABSTRACT

maintaining a healthy sexual life as part of their overall well-being, sexual health should be routinely assessed by a multidisciplinary team, including transplant surgeons, surgical and obstetric/gynecology nurses, and psychologists.

Keywords: Kidney transplantation, sexual dysfunction, qualitative study

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sağlık, nakil cerrahları, cerrahi ve obstetrik/jinekoloji hemşireleri ve psikologlar dahil olmak üzere multidisipliner bir ekip tarafından rutin olarak değerlendirilmelidir.

Anahtar Kelimeler: Böbrek nakli, cinsel işlev bozukluğu, nitel çalışma

Introduction

Sexuality is the whole of the characteristics of living beings as a requirement of masculinity and femininity, as well as the most basic natural condition for the production necessary for the continuity of living life (1).

The sexual problems experienced by patients after organ transplantation can be seen as a result of psychological and physiological factors. Sexual dysfunction is an important problem before and after kidney transplantation (2). It is claimed that kidney transplantation reduces morbidity and mortality in most patients with end-stage renal disease, improves the quality of life, and restores sexual function and fertility (3). However, according to studies performed after kidney transplantation, it has been reported that sexual dysfunction is more common especially in women (4,5). Similarly, it has been reported that sexual dysfunction is common in women after kidney transplantation in the Turkish population, and its incidence is in a wide range such as 46-93.9% (6-8). On the other hand, among the treatment options for end-stage renal disease, the most effective option for restoring the health and sexual functions of patients is kidney transplantation (9-11). Although sexual dysfunction is common after kidney transplantation, its etiology is assumed to be multifactorial. Disorders associated with symptoms such as decreased sexual desire, inability to reach orgasm, vaginal dryness, menstrual irregularities, infertility, and dyspareunia can be observed (12). Also, the integration of a new organ into the body may mean adjustment of body image, which can hurt intimacy and sexual behavior (13). Although it is known that the quality of life in women increases and hypoactive sexual disorder improves after kidney transplantation, it is known that body image and femininity perceptions related to surgical scars, fear of losing the new organ, and problems experienced in adapting to living with the organ will also affect sexual functions.

On the other hand, besides the emotional and social dimensions, an unplanned pregnancy shortly after a kidney transplant may expose both the mother and the fetus to significant risks, and women are advised to seek contraception counseling. Almost all women who have a transplant after discharge are in frequent contact with a team of doctors and nurses. However, it is reported that sexuality is often overlooked (14,15).

This study was designed qualitatively to understand the sexual problems of women with kidney transplantation and the emotions they experienced during the disease process. In this way, it is thought that the implications for the clinical management of sexuality, which are ignored with the revealing of the sexual problems experienced by women after kidney transplantation, will guide future studies on the subject.

Methods

Study Design

This qualitative study aimed to identify experiences, views, and problems of women who had kidney transplants regarding the effects of kidney transplants on their and their partner's sexual life. This study was conducted by using constructivist content analysis to understand the sexual problems of kidney transplant women and their emotions during the disease process. In this way, it is thought that the implications of the clinical management of sexuality, which is ignored in surgical clinics, will guide future studies on the subject. This study adhered to the consolidated criteria for reporting qualitative research.

Participants

The target population of this study consisted of women who had undergone kidney transplantation in the urology department of a private hospital between June 2021 and December 2021. Although qualitative studies typically involve small sample sizes, ranging from 5 to 25 participants, it is widely accepted that sampling may cease once data saturation is achieved that is, when no new themes or insights emerge (16,17).

Accordingly, 15 female patients who met the inclusion criteria and voluntarily agreed to participate were selected through criterion sampling. The inclusion criteria were as follows:

- Having undergone kidney transplantation at least six months prior to the study,
- Being aged 18 years or older,
- Being oriented to person, place, and time,
- Being able to communicate in Turkish, and
- Voluntarily consenting to participate in the study.

Data Collection

Interviews were conducted individually in a quiet, private room. Each interview lasted approximately 30-40 minutes. Since the participants did not consent to audio recording, the researcher documented the interviews through detailed handwritten notes.

Data Collection Tools

Data were gathered using a two-part semi-structured interview form developed by the researcher based on a review of the relevant literature. The first part of the form included demographic and clinical questions regarding the participants' characteristics, such as age, income status, reason for transplantation, and date of transplantation. The second part comprised open-ended questions aimed at exploring the effects of kidney transplantation on their sexual lives. Example questions included:

- "How was your sexual life before your illness?"
- "What changes have occurred in your sexual life after the operation?"
- "How has your spouse been affected by the changes in your body following the transplantation?"

Data Analysis

The data obtained from the interviews were analyzed using content analysis. Data analysis was carried out concurrently with data collection, following the method outlined by Graneheim and Lundman (18). This process involved transcribing each interview immediately after completion, reading the full transcription to gain an overall understanding of the content, identifying basic codes, grouping similar initial codes into broader sub-themes, and ultimately deriving overarching themes from these sub-themes (18).

Initially, the first three interviews were independently coded by each researcher. The codes were then compared, and any discrepancies were resolved through consensus. After reaching agreement on the coding of the first three interviews, the remaining interviews were coded and analyzed accordingly. Data saturation was achieved after 15 interviews.

The main themes identified were: concerns about reproductive health, disease-associated sexual reluctance, perception of femininity and body image, concerns about the spouse/partner. These themes were discussed in detail in the findings and discussion sections.

Ethical Considerations

Interviews were conducted after the necessary institutional and ethics committee approvals were obtained from the Clinical Research Ethics Committee of İstanbul Medipol University (decision no: 391, date: 28.05.2020). Before each interview, participants were informed about the purpose and nature of the study. They were assured that all written information would be securely stored by the researchers, that confidentiality would be maintained, and that their responses would be used solely for scientific purposes. Written and verbal informed consent was obtained from all participants.

Results

Of the 15 participants, the mean age was 43±4.28 years. More than half of the women had completed higher education (8 out of 15, 53.3%), indicating that the sample largely consisted of women with an advanced educational background. In addition, two-thirds of the participants were married (10 out of 15, 66.7%), suggesting that the majority were living with a spouse or partner at the time of data collection.

Four main themes were generated based on the thematic analysis of the interviews with participants about their sex lives after kidney transplantation. Themes and relevant subthemes are presented in Table 1.

Theme 1: Concerns About Reproductive Health

One participant had the fear of not being able to get pregnant and the anxiety of not being able to become a mother both before and after the transplant surgery.

"….When I met my husband, I was a dialysis patient. During that time, I did not agree to marry him because I thought that I would not be able to get pregnant and become a mother. We loved each other very much. That's why I didn't agree to get married to him because I wished him to become a father and live through a healthy process. However, my husband did not give up. We finally got married. Although we went through a very difficult pregnancy and the postpartum period, he did not cheat on me or he did not leave me" (P1).

Table 1. Themes and sub-themes

Themes	Sub-themes
Concerns about reproductive health	Fear of not being able to become a mother Fears about pregnancy
Disease-associated sexual reluctance	Low sexual interest Fatigue, weakness Depression Sleeping problems
Perception of femininity/body image	Feelings of incompleteness Feeling of inadequacy Concerns of not deserving love from the spouse/partner Concerns of not being liked
Concerns about the spouse/partner	Concerns about not deserving a healthy spouse/partner Concerns about inadequacy to meet the sexual needs of the spouse/partner Feeling guilty about the sexual problems with the spouse/partner

Theme 2: Disease-associated Sexual Reluctance

Almost all participants reported that they experienced sexual reluctance because of the fatigue and weakness that they felt before receiving the transplant. While some participants felt better after receiving the transplant, others had lowered sexual interest and desire.

"…I was feeling very tired and weak during the treatment I received before transplantation. I didn't feel like doing anything. I'm feeling a little better now. However, I can't say that I wish to have sex that much. I force myself to make love only because my husband wishes to have sex" (P1).

Another woman declared:

"...My husband and I couldn't have a normal sexual relationship because I felt fatigued and weak all the time before the transplantation. The fatigue continued for a while after the transplant. To tell you the truth, I have sex only to make my husband happy. I, personally, do not feel to have sex that much" (P12).

One of the women experiencing sexual desire because of the fatigue and weakness explained her feelings as such:

"...I'm feeling better now and I don't feel fatigued. However, I've been dealing with the disease for years. If I were not married, I would never think of having sex" (P13).

Theme 3: Perception of Femininity/Body Image

The examination of the participants' statements revealed that they felt incomplete or imperfect as a woman.

"…My husband is a healthy person. I wouldn't wish him to marry an imperfect woman like myself and go through problems throughout his life. My husband is a very good person. He stands by me despite all my inadequacies. As a woman, I could not do anything for my husband during the treatment process. I got pregnant after the treatment and stayed in the hospital for months after giving birth. At those times, I couldn't take care of my baby or my husband. My husband went through quite difficult times. I sometimes ask myself what I have done to deserve him. My husband continues to support me in every way despite all issues…" (P10).

Another woman declared:

"…I had no sexual desire before and during the treatment. I'm feeling better now, but my husband says he's afraid something will happen. I think he does not want to be with me or he does not like me as a woman anymore" (P4).

Most of the women also stated that they were not wanted by their husbands, they were not desired and they did not feel like women (P2, P4, P8, P9-15).

"…I'm incomplete now. Needless to say, my husband does not like me…I don't know, I haven't felt like a woman for a long time" (P8).

"…I don't feel like a woman… I am ashamed of my husband" (P9).

Theme 4: Concerns About the Spouse/Partner

Based on the statements of the participants, it was determined that most of them felt guilty because they neglected their spouses/partners during the disease and treatment processes. The thoughts that they deserved to be cheated on, abandoned, or neglected by their spouses/partners revealed the concerns of the participants about their spouses/partners.

"…After giving birth, I stayed in the hospital for months. I could not be with my baby and my husband. I'm feeling better after the transplant. Nevertheless, I cannot resent my husband if, one day, he says that there is someone else in his life... I've exhausted him" (P1).

"…My husband is a healthy man and deserves to be with a healthy woman. Sometimes I feel sorry for him. The treatment process that I went through was exhausting not only for me but for him as well. After all, how long a man could stand? He could have cheated on me…" (P3).

Another woman declared:

"...During the treatment process, my husband and I have been separated for long periods, I neglected him a lot. As a woman, I know that I cannot satisfy him" (P5).

"…I feel that my husband does not wish to be intimate with me, I mean sexually, after the treatment. I had the same feeling before I received treatment, too. Maybe he doesn't want to be with me anymore. I agree with him. Who could wait for a woman for such a long time?" (P6).

Concerns about the spouse may also be related to the patriarchal structure of society. In Turkish culture, many women are still married at the request of their families, and their husbands' sexual satisfaction is more important to their traditions. In the studies conducted in Turkish society on women's sexual satisfaction, it has been determined that women have a sense of pleasing their spouses more than themselves, and their sexual satisfaction is dependent on their spouse's happiness. Nearly half of the women in this study were married against their will. Arranged marriages that continue in Turkish society also negatively affect sexual satisfaction and perception of sexuality. Women's concerns about their spouses are usually because they feel incomplete and unhealthy, and they think that their spouses deserve to be with a healthy women more. This situation may also reflect the culture, regardless of the disease. In other words, women's sexual satisfaction or satisfaction is related to how satisfied they are with their spouses.

Discussion

In this study, it was found that women experienced favorable changes in their sex lives after kidney transplant but sexual reluctance, perception of femininity, concerns about the spouse/partner, and reproductive health concerns that were present previously continued after transplantation. In the literature, it has been reported that women's sexuality improves after kidney

transplantation (19). In a study comparing pre-transplant and post-transplant sexual problems and sexual function in female kidney transplant patients, it was observed that sexual function significantly improved after transplantation (2). A study on women examined participants in three groups as those on hemodialysis, those in the post-transplant period, and those in the control group. That study reported sexual dysfunction rates as 89.7%, 73.9%, and 56.7% in the study groups, respectively. Total female sexual function index (FSFI) scores in the hemodialysis group were significantly lower compared to the scores obtained by women in the post-transplant and control groups ($p<0.05$). Beck Depression Inventory (BDI) scores in the hemodialysis and control groups were 23.24 and 14.17, respectively. There was a significant difference between the two groups ($p<0.05$). The BDI score was 16.65 in the post-transplant group and it was not statistically significantly different. Female sexual dysfunction should be evaluated routinely in patients with chronic kidney failure (20). Özdemir et al. (8) conducted a study on kidney transplant patients in the Turkish population. That study reported sexual dysfunction rates as 56.9% in men and 93.9% in women after transplantation. Sağduyu et al. (9) reported that 80% of kidney transplant patients had problems with sexual function and sexual dysfunction often continued after transplantation.

A study investigating sexual functioning and sexual self-esteem in women, who received pancreas and kidney transplants, reported that 39% of women were found to have normal sexual functioning. Contrary to the literature, only about one-third of women reported that transplantation improved their sexuality (21). The results of this study support the findings reported by previous studies. It can be suggested that sexuality is favorably affected by the improvement of physical symptoms such as fatigue and weakness in women after transplantation. However, in the post-transplant period, women should be evaluated for the perception of femininity, the presence of a sexual desire disorder, and concerns about the spouse/partner. This situation indicates that physiological recovery alone is not sufficient for a complete improvement in sexual life, and that psychosocial and cultural factors also play a decisive role. In particular, gender roles, women's body image, and communication patterns with their partners can significantly influence the sustainability of sexual well-being after transplantation.

Sexual dysfunction is a common problem in case of chronic kidney disease and persists in 50% of patients. A study investigating women's sexual anxiety and quality of life four years after kidney transplantation reported that the highest sexual anxiety scores were observed in the domain of discussing sexuality (mean=2.70) and concerns about sexual pleasure (mean=2.45) with healthcare professionals. There was a significant and inverse correlation between the quality of life and high anxiety levels about the implications of sexual activity on health, quality of sexual intercourse, sexual pleasure, sexual dysfunction, and pessimistic beliefs about treatment. The major problem that women might encounter before and after transplantation is about receiving healthcare services for sexual health, especially when sexuality is neglected in the post-transplant period (1). Therefore, the lack of knowledge and communication skills among healthcare professionals leads to the unmet sexual health needs of female patients. This creates a significant gap in quality of life, despite medical success.

As a part of a research project, a survey was conducted on all types of care providers for kidney patients. It was found out that not all transplant surgeons (73.9%) discussed sexual health with patients and felt responsible for performing such a discussion before and after kidney transplantation, and the patients' level of information was inadequate (39.1%) (22). Surgeons can guide patients toward undergoing an evaluation of sexual health and receiving relevant counseling after kidney transplantation to avoid the persistence of unmet needs. This finding highlights the importance of a multidisciplinary approach. The active involvement of not only surgeons but also nurses, psychologists, and reproductive health specialists can contribute to the improvement of sexual health in female patients.

Ten percent of the world's population suffers from chronic kidney disease. Kidney transplantation improves the quality of life of patients. Sexual dysfunction is common after kidney transplantation. The etiology of sexual dysfunction after kidney transplantation is assumed to be multifactorial. It affects sexual satisfaction and health-related issues unfavorably. Integration of a new organ into the body can mean that the individual should adapt to a new body image. Perceived body image changes can eventually have negative implications on intimacy and sexual behavior. Healthcare professionals need to be trained to optimize the general health and sexual satisfaction of patients with chronic kidney disease and kidney transplants (13). Moreover, expanding psychosocial support services and patient education programs would not only address the physiological effects of organ transplantation but also facilitate the social and emotional adjustment process of individuals.

In a study conducted in a hemodialysis unit at Assiut University Hospitals in Egypt, it was reported that more than half of hemodialysis patients had sexual dysfunction and poor quality of life. In that study, a positive correlation was found between sexual dysfunction and poor quality of life in women undergoing hemodialysis (23). Sexual function and quality of life should be routinely screened in women with chronic kidney disease or kidney transplants. Such patients should receive support from a multidisciplinary team when needed. In conclusion, although kidney transplantation provides physiological benefits, persistent problems remain in the domain of sexual health. Therefore, integrating sexuality into routine medical follow-up should be considered a critical necessity for both individual and public health.

Study Limitations

A key strength of this study is its focus on a relatively underexplored aspect of post-transplant quality of life—sexual health—which is often overlooked in clinical practice. By incorporating a

comprehensive review of both physiological and psychosocial factors affecting sexual function, the study provides a holistic perspective that can inform multidisciplinary care approaches.

However, several limitations must be acknowledged. First, variability in study populations, assessment tools (e.g., FSFI, BDI), and follow-up durations across different studies may affect the generalizability of the findings. Secondly, cultural factors influencing the discussion and reporting of sexual health issues, particularly in more conservative societies, could have impacted the results. Additionally, the reliance on self-reported measures might have introduced response bias due to the sensitive nature of the topic.

Recommendations for Future Research

Future research should aim to address these limitations by conducting multicenter, longitudinal studies with larger and more diverse populations to better understand the long-term trajectory of sexual health post-transplantation. It is essential to develop and validate culturally sensitive instruments for assessing sexual function and related concerns.

Moreover, intervention-based studies examining the effectiveness of targeted counseling programs, psychological therapies, and partner-inclusive approaches could provide valuable insights into best practices for managing sexual dysfunction. Finally, greater emphasis should be placed on training healthcare professionals to initiate discussions on sexual health routinely and empathetically in transplant care settings.

Clinical Implications

Optimal management should include, routine assessment of sexual function post to kidney transplant and screening for sexual dysfunction during follow-up.

Study Limitations

Limitations include the small number of patients and the potential memory bias.

Conclusion

This study underscores the complex interplay between physical recovery and psychosocial adaptation in women following kidney transplantation. Although transplantation leads to significant improvements in physical health and partially enhances sexual functioning, persistent concerns related to body image, sexual desire, partner relationships, and femininity continue to affect patients' sexual well-being.

These findings highlight the necessity of integrating routine sexual health assessments and counseling into the pre- and post-transplant care process. Healthcare professionals must be trained to recognize and address the multifactorial nature of sexual dysfunction in kidney transplant recipients, considering both physiological and psychological dimensions.

Future care models should adopt a multidisciplinary, patient-centered approach to optimize not only the medical outcomes but also the emotional, relational, and sexual health of female transplant patients. By doing so, healthcare systems can contribute to a more comprehensive improvement in the quality of life for women living with a kidney transplant.

Ethics

Ethics Committee Approval: Interviews were conducted after the necessary institutional and ethics committee approvals were obtained from the Clinical Research Ethics Committee of İstanbul Medipol University (decision no: 391, date: 28.05.2020).

Informed Consent: Written and verbal informed consent was obtained from all participants.

Footnotes

Authorship Contributions

Surgical and Medical Practices: N.A., Y.Y.V., B.D., Concept: N.A., Design: N.A., Data Collection or Processing: N.A., Y.Y.V., B.D., Analysis or Interpretation: N.A., Y.Y.V., Literature Search: N.A., Y.Y.V., B.D., Writing: N.A., Y.Y.V.

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