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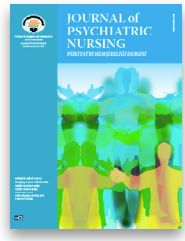

Case report

Psychosocial care after kidney transplantation: A case report

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Abstract

In the chronic kidney failure and transplantation process, which is a complex and dynamic multidimensional process, psychosocial needs are of particular importance and require individualized holistic nursing care. With this case report, it is aimed to evaluate the nursing biopsychosocial care given based on the Nursing Care Model of Gordon's Functional Health Patterns. The patient had a health history of hypertension, diabetes mellitus, arrhythmia, and chronic renal failure. He had a kidney transplant approximately 1 year ago. Frequent hospitalizations were made with recurrent infection, hyperthermia, and diarrhea due to the complication of ureteral rupture that started 1 month after transplantation. According to the data obtained, it was determined that the case was negatively affected psychosocially, these effects were seen in 11 sub-dimensions in the model, and the holistic nursing care offered was effective in managing the process. Since the disease and transplantation process is full of difficulties, it is recommended to apply individualized holistic nursing care and support the psychosocial dimension in nursing care in maintaining the individual's well-being and increasing the success of treatment.

Keywords: Functional health patterns model; kidney transplantation; nursing; psychosocial care.

Although chronic kidney disease (CKD), defined as a major public health concern today, is a preventable condition or a disease with a delayable progression, it keeps increasing due to factors such as low awareness of the disease and delays in early diagnosis and is foreseen to escalate in the future.[1] Besides the rising incidence of CKD, it requires effective management of the disease process since it is an important problem for both individuals and the health-care system with all its tangible and intangible aspects such as the prognosis of the disease, biopsychosocial negative effects on the individual, and high treatment costs. This requirement makes individualized holistic nursing care mandatory.[2]

Advanced diagnostic, treatment, and care options for chronic renal failure, a complex, dynamic, and multidimensional process, are progressing day by day. Especially, individuals who suffer from end-stage renal failure prefer the option of kidney transplantation to enhance their biopsychosocial quality of life.[3,4] Kidney transplantation is considered the gold standard due to its advantages over other treatment options, such as enhancing quality of life and reducing the symptoms of medications and dialysis. However, this choice, which affects individuals psychologically, socially, spiritually, and economically as well as physically, is not regarded as a precise cure option and is known to bring about many psychosocial problems, especially depression and anxiety.[5,6] During this process, the roles and responsibilities of nurses in managing the care of individuals play a key role in enhancing their quality of life, improving their well-being, and facilitating their ability to accept and cope with the disease.[7] Factors such as uncertainties in the kidney transplantation process, prolonged hospitalization, changes in family roles and relationships, fear of organ rejection, risk of infection, side effects of medication, and feelings about the foreign and vital organs lay the groundwork for psychosocial problems. It has also been reported that this

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might affect psychosomatic crises that could lead to changes in self-perception and identity.[8,9] Studies in the literature have also indicated that patients suffer from many psychosocial problems during kidney transplantation, and these problems primarily include fatigue, fear, concern, anxiety, unhappiness, financial hardship, and psychosocial evaluation and support before and after transplantation is important.[2,4,6,8–11]

Consequently, it is necessary for patients to hold on to the future and maintain their biopsychosocial well-being, as the disease and transplantation process is fraught with difficulties for both the patient and the patient's relatives, and to increase the success of the treatment. The aim of this case report is to discuss and evaluate the biopsychosocial care provided based on the Nursing Care Model of Gordon's Functional Health Patterns.

The patient, who was cared for in the Organ Transplant Clinic under the practice of the Psychiatric Nursing course, and his relative were informed about the study and its publication, and the patients gave written consent by signing an informed consent form. Staying in a single room in the hospital facilitated information security and privacy. The data were collected using the "Data Collection Form in General Clinics of Psychiatric Nursing Course" prepared by the Consultation Liaison Psychiatric Nursing Commission of the Psychiatric Nurses Association as a data collection tool and through clinical observation and four interviews lasting approximately 40–45 min every day during the clinical practice.

Case Report

Mr. K. is a 32-year-old male patient who graduated from high school, is unemployed, and has been married for 12 years. His wife accompanied him.

Medical History

Past Medical History

Mr. K., who suffered from diabetes mellitus (DM) for 25 years and arrhythmia and hypertension for 7 years, applied to the hospital with a diagnosis of Chronic Renal Failure after undergoing hemodialysis for 7 years and was subjected to kidney transplantation from his father, a donor, about 1 year ago. He reported that he had complaints of constant infection, hyperthermia, and diarrhea due to urine leakage in his ureter, which began 1 month after the transplant, and this condition recurred frequently.

Present Medical History

Mr. K came to the emergency room 3 days ago with fever and tremors. After his fever was dropped in the emergency room and he was discharged, he came to the outpatient clinic in the morning with persistent hyperthermia and diarrhea, and it was decided to hospitalize him.

What is presently known on this subject?

- It is known that patients who undergo kidney transplantation suffer from many psychosocial problems, such as depression, anxiety, changes in family roles and relationships, sexual problems, changes in body image, difficulties in adaptation to the disease and treatment, and the possibility of organ rejection.

What does this article add to the existing knowledge?

- It appears that the biopsychosocial care delivered to the patient with psychosocial problems during the process of adapting to life after transplantation improves his compliance to treatment and mental well-being and promotes self-management behaviors.

What are the implications for practice?

- This case report shows that it is important to support the psychosocial dimension in individualized holistic nursing care based on the Nursing Care Model of Gordon's Functional Health Patterns. Sharing the experience in the context of the case is believed to be guiding for our colleagues in the field of practice.

Data based on the Functional Health Patterns Model are presented below.

Health perception – Health Management

During the interview, Mr. K. described his medical condition as poor. He indicated that his illness had harmed him and disrupted his life and he perceived his illness as a punishment inflicted on him. He was upset when he indicated that he had regular health check-ups; he had many ailments, and therefore, he could never leave the hospital. He stated that he had difficulty in moving or exercising due to symptoms such as weakness and fatigue in his daily life and hospital conditions during his hospital stay, he smoked until about a year ago, quit smoking after the transplant surgery, and he was not drinking alcohol. He indicated that he had many diets due to his diseases (CKD and DM), he paid attention to his diets, but that he rarely broke out of his diet due to the great strain he was under during this process, and that he was no longer motivated. He stated that he withdrew from people to protect himself during this process and lost the enjoyment of what he ate and drank.

It was decided to take Ineffectiveness in Maintaining Health as the nursing diagnosis. As nursing interventions, the patient's information needs regarding the disease was determined, and training about complications, medications, nutrition, and movement were repeated. To support coping with stress, the training aimed at teaching breathing and relaxation exercises was organized. The patient was encouraged to do these exercises throughout the care process. Walking activities were planned with the patient, and the patient was encouraged to ask questions and communicate effectively.

Nutritional – Metabolic Condition

Mr. K. adhered to salt restriction and the DM diet. The dietitian instructed that his daily calorie intake should be 35 kcal/kg/day and his daily salt intake should not be more than 1 g. Mr. K

was encouraged to consume predominately low-glycemic-index foods (yogurt, meat, green leafy vegetables, etc.), avoid carbohydrates and sugar, and drink at least 3 l of water. The patient complained of a loss of appetite and was even unable to have breakfast in the morning. He reported that he had lost more appetite in the last few days. He claimed that this was caused by stress and he had lost his appetite since he did not know what was going to happen and when he would get rid of it. He stated that he had recently lost weight rapidly and had lost approximately 10 kg in the last year.

It was decided for him to take nutrition less than the body needs as per the nursing diagnosis. As nursing interventions, the factors that prevented the patient from eating were discussed, the environment for eating was organized, and the room was ventilated. The foods that the patient liked and disliked were determined, and the patient was encouraged to cooperate with the dietician. After the importance of oral care was explained, oral care was implemented. The patient was informed about the importance of daily weight tracking and fluid intake and output and their importance in the recovery process. Objective data specific to this diagnosis were determined as failure to eat main meals or snacks, weight loss in daily weight tracking (Table 1), having a body mass index of 18.33 kg/m^2, and being physically weak; whereas, subjective data were determined as an expression of anorexia and refusal of taking food.

Elimination

The patient with a ruptured ureter stated that he had no problems with urinating and defecating before this complication, but he could not urinate after this complication; they inserted a Foley catheter, and he was uncomfortable with it. He stated that he was uncomfortable with infection-induced diarrhea. The amount of fluid intake was higher than the amount of fluid output in the daily intake-output tracking (IOT) (Table 2).

It was decided to take Fluid Volume Excess as the nursing diagnosis. As nursing interventions, the patients were told about the requirement of maintaining adequate hydration, its causes, and the methods that ensure the intended amount of fluid intake. A daily weight tracking was done. Laboratory findings were followed. The patient was kept raised by placing a pillow under his legs. He was followed up for the symptoms of a pressure ulcer. He was told to assess food labels for sodium content. He was told to adhere to his diet and avoid salty and spicy foods. Objective data specific to this diagnosis were determined as a C-reactive protein value of 130 mg/L, a blood urea nitrogen value of 30 mg/dL, the presence of a positive balance on the IOT, swelling in the face, hand, and right leg, and +1–2 pitting. Subjective data were determined as an expression of inability to urinate and discomfort during urination.

Table 1. Example for daily weight tracking

Day	Weight
October 08, 2022	56.4 kg
October 09, 2022	55.4 kg
October 10, 2022	54.6 kg
October 11, 2022	56.0 kg
October 12, 2022	55.4 kg

Table 2. Example for fluid intake-output tracking

Day	Intake	Output	Balance
October 08, 2022	6450	5600	+850
October 09, 2022	5250	5000	+250
October 10, 2022	5550	4000	+1550
October 11, 2022	6200	5000	+1200
October 12, 2022	5300	5000	+300

Activity – Exercise

During the interview, Mr. K. stated that he got help from his wife while going to the toilet, walking, and taking a shower during the transplantation process, he moved less now, he always wanted to sleep, and paid even less attention to himself during this process, he previously enjoyed traveling, but added that he now just wanted to sleep and did not have any desire to do anything else.

It was decided to take Activity Intolerance as the nursing diagnosis. As nursing interventions, the patient was encouraged to engage in his independent/semi-dependent activities to be more active during the day. Mr. K. was encouraged to be active at frequent intervals during the day, with rest intervals, but for longer periods. They organized walks together in the corridor and the hospital garden by chatting. Activity time was organized with the patient and his wife at a convenient hour. The patient was supported to have a positive atmosphere and belief that would encourage more activity. While objective data specific to this diagnosis were determined as Hb values between 7.1 and 8.6 g/dL in daily laboratory follow-up and constant sleepiness, subjective data were determined as a constant desire to sleep expression of tiredness, and reluctance to get out of bed.

Sleep – Rest

Mr. K. stated that he did not wake up rested in the mornings, he was constantly pre-occupied with things, and he had difficulty falling asleep, therefore, he woke up early in the mornings due to the noises in the ward, and he slept only for 3–4 h at night. He was observed to sleep intermittently for half an hour or an hour during the day. He stated that he could no longer recognize the distinction between day and night.

It was decided to take Sleep Pattern Disruption as the nursing diagnosis. As nursing interventions, the patient was encouraged to share his thoughts that kept him from sleeping, and a noiseless/quiet setting was created. The physician and nurse were consulted, and necessary arrangements were made to adjust treatment hours and vital signs according to bedtimes. Activities and walks were organized to reduce daytime sleepiness. Books and magazines were brought, and he was encouraged to read them before going to sleep at night. He was advised to avoid drinking any caffeinated drinks before bedtime, avoid eating heavy foods (oily, spicy, etc.), engage in excretory activities, and was then supported to fall asleep. Activities to facilitate falling asleep (a warm bath, herbal tea, massage, etc.) were discussed. He was instructed to have relaxation exercises accompanied by meditation music.

Cognitive - Perceptual Condition

The ability to remember the space-time-person orientation and past experiences was evaluated by asking Mr. K. his name, surname, location, and date, calling him by name, and significant dates in his life. Perceptual reactions such as discomfort with loud noises, comments on food odors, etc., and hearing, smell, taste, and touch/feeling senses were found to be normal. He stated that diabetes negatively affected his eyes and he wore spectacles for many years.

Self-Perception – Self-Concept

During the interview, Mr. K stated in a trembling voice and with tears welling up in his eyes, "I have grown very tired of this life. I keep getting sick in the hospital; there is always something incomplete or missing. I cannot catch up with anything; nothing is complete. I have no job and no regular family life. I drag my wife along with me," he said. He stated that he was a burden to everyone, and he felt very upset about this.

It was decided to take Impaired Self-Esteem as the nursing diagnosis. As nursing interventions, he was encouraged to express his feelings, what he felt and thought about himself and his disease, and his perspective on self and to ask questions. He was supported to improve his sense of trust with his wife. The importance of comfortable sitting, restfulness, and eye-to-eye communication while speaking was expressed. He was encouraged to be assertive by teaching effective communication techniques such as the language of "self." He was encouraged to recognize his negative automatic thoughts and overgeneralizations. He was reinforced to improve his self-esteem by providing positive feedback. He was supported to change his negative traits by discussing goals for the future.

Role – Relationship

Mr. K. stated that he had been living with his wife; they had good family relations, but they were no longer happy; they were going through tough times, and they were very frazzled. Mr. K. stated that he was unemployed until that age; he and his father used to live off the land, but now that he would like to work and look after his household and he no longer wanted to rely on his father. He stated that he used to meet his friends and relatives socially, but during his hospitalization, he had fewer social encounters. He stated that he was distant from everyone; although everyone was upset, they soldiered on with their lives, and he was only with his wife, so he kept everyone at a distance. He stated that he and his wife were incapable of forming an independent family since he was financially dependent on his father due to his inability to work; his role as a spouse had faded, and he was upset due thereto.

It was decided to take Ineffectiveness in Role Performance, Impairment in Social Interaction, and Impairment in Family Processes as nursing diagnoses. As nursing interventions, the factors (illness and stress) that caused ineffectiveness in the role performance were determined by allowing the patient to explain his feelings and thoughts. The patient was told that his condition was curable and temporary. The importance of effective communication based on trust was explained. The importance of support systems was discussed, and the patient was encouraged to communicate with friends and family members.

Sexuality – Reproduction

During the interview, he shared with tears welling up in his eyes that his sexual life was very much affected, and he stated, "Neither my marital life nor my personal life survived; my wife is also exhausted;" "*I have been married for many years, but we have no children. We could not think of children because we were struggling with this disease*" and added that his sexual life was negatively affected.

It was decided to take Ineffectiveness in Sexuality Patterns as the nursing diagnosis. He was encouraged to ask questions as a nursing intervention. He was encouraged to share his feelings with his wife.

Coping – Stress Tolerance

Mr. K. said in a trembling voice that he no longer held any hope, he was going to die, he had lost his power, his tolerance toward people had gone down, he was more nervous and tense when he was stressed, and he could no longer cope with it. He told how his kidney would be damaged due to a ureteral rupture and how he was very afraid of that, and he did not know how to cope with it. He reported that a psychiatrist had visited him before and prescribed medication, and he reacted by expressing, "Ask me how I am; talk to me; I need this. Everyone just asks me if I am okay." His words, "No one understands me," also explain the situation. He stated that this harmed people and himself more and hurt people, and he even threw a phone at a health worker once, and then he

Table 3. Nursing diagnoses in the case

Item no	Name	Item no	Name
1	Ineffective individual coping	9	Disruption in family processes
2	Ineffectiveness in the role performance	10	Sleep pattern disruption
3	Ineffectiveness in maintaining health	11	Ineffectiveness in sexual patterns
4	Anxiety	12	Nutrition less than the body needs
5	Hopelessness	13	Activity intolerance
6	Fear	14	Lack of self-care
7	Depression	15	Infection
8	Impairment in social interaction	16	Rejection risk

regretted it. He added that he hated Antalya, a city he used to love very much. Moreover, his statements, "Now I don't take care of myself at all; I don't care," indicate how serious the individual dimension of the situation is. A high depression level of 14 and a high anxiety level of 17 on the hospital anxiety and depression scale support the situation.

It was decided to take Ineffective Individual Coping, Anxiety, Depression, Hopelessness, and Fear as the nursing diagnosis. As nursing interventions, positive or negative coping methods for the case were discussed, and he was encouraged to adopt positive coping methods. He was allowed to share and be aware of his feelings. His concerns and fears were uncovered through empathy. He was encouraged to raise his motivation, and positive feedback was provided. The patient was trained on effective coping methods (such as the importance of respiratory control, slow thinking, taking a walk, staying calm, and reflecting on the opposite side of the situation), walking and meditation, and deep breathing exercises were implemented together with his wife; a letter was written about the future, and he was supported to set short-, medium-, and long-term goals for the future. The feeling of specialness for himself and others was reinforced.

Value – Belief

He stated that he now perceived death as normal, he thought that he was going to die as his condition was not getting better, and he wondered why that disease struck him. He stated that he had not done any cultural, religious, or traditional rituals for his disease.

Based on the data, a total of 16 nursing diagnoses and the care process specified in Table 3 were directed to the needs of the case during the 4 weeks of care provided to the case.

Nursing care was supported by observation records, planned interviews, and training. Table 4 shows that a total of four planned interviews were conducted with Mr. K.

Since the nursing care process in the case report was limited to clinical practice days, it was carried out to cover Monday–Tuesday of each week. Since the case was discharged after 4 weeks with the decision to be followed up as an outpatient, nursing care was terminated.

Table 4. Interview plans with the case

Interview subject	
Interview 1	Introductions and safe communication
Interview 2	Impact of the disease on his life
Interview 3	Identification of coping methods
Interview 4	Sleep patterns and their relationship with disease

Discussion

This study presented the experiences of a patient diagnosed with chronic renal failure who underwent kidney transplantation, during the transplantation process, based on the Nursing Care Model of Gordon's Functional Health Patterns.

It was observed that the patient tried to express his feelings in almost every one of the 11 sub-dimensions in the model and was negatively affected psychosocially in every aspect. The study conducted by Gündüz and Akyolcu (2020)[4] to examine the effect of end-stage renal failure on the lives of patients who were planned for transplantation, their coping methods with the disease, and their thoughts about organ transplantation reported that patients had no hope for the future and felt depressed, they suffered from uncertainty, their self-esteem and body image were negatively affected by the disease, they lacked trust in health-care professionals, they used emotion-focused coping methods more, they experienced various fears related to organ transplantation, but they defined organ transplantation as living with quality, freedom, and hope. In a qualitative study conducted by Burucu et al.,[2] (2022) to examine the experiences of patients and their relatives in this process in depth, unhappiness, fatigue, anxiety, and psychological and financial inadequacy problems were expressed, and they suggested that the approaches of health-care professionals should be supported by education. A study by Szeifert et al.,[12] (2010) indicated that one out of every five patients with kidney transplantation was depressed. In their study, Pérez-San-Gregorio et al.,[11] (2006) found that sexual functions in individuals with transplantation were also negatively affected. Raashid et al.,[13] (2021)found that the majority of patients with end-stage renal failure had low adherence to treatment. Doğan and Dönmez

(2019)[14] determined that patients' healthy lifestyle behaviors and life satisfaction were at a moderate level. Studies on the importance of nursing care in kidney transplantation indicate that nurses should have the ability to recognize the mental problems that patients suffer from after kidney transplantation, plan, implement, and evaluate the necessary interventions for the problem, psychotherapeutic interventions, and care and patient education require lifelong continuity, patient education improves treatment adherence, and nursing psychosocial care specific to the individual and nursing diagnosis is effective in enhancing quality of life.[15–17] This case study found that similar to the literature, Mr. K. had many problems and suffered from both psychological and social difficulties, as well as the biological symptoms of the disease. This suggests that he and his treatment team in the hospital setting focused more on the management of biological symptoms and less on the resolution of psychosocial problems. It was observed that interventions such as education, interviews, etc. within the scope of the nursing care provided facilitated Mr. K. to express his feelings and empowered him to manage the process. In this case, it was considered that the biopsychosocial care to be provided to individuals after transplantation affected treatment adherence and success rate.

Conclusion and Recommendations

Consequently, as seen in this case report, holistic nursing care is important in facilitating the individual's adaptation to the disease process and coping with the burdens brought about by the disease.

According to these results, it is recommended to:

- Implement individualized holistic nursing care
- Support with a multidisciplinary approach
- Plan activities for "emotion management/education" for the pre- and post-transplantation period
- Prioritize biopsychosocial care in the field of practice.

Informed Consent: Written informed consent was obtained from patient who participated in this study.

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