Special Article

Psychosocial Adjustment and Social Support in Patients with Chronic Kidney Disease Receiving Hemodialysis

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Abstract
Purpose: Psychosocial adjustment is an ongoing process that helps individuals with Chronic Kidney Disease (CKD) to emotionally, mentally, and socially adapt to hemodialysis treatment. Failure to adjust properly may result in emotional distress, depression, and poor treatment compliance.
Method: The literature review utilized studies and reviews derived from international databases PubMed and Scholar Google about psychosocial adjustment of patients on hemodialysis treatment.
Results: Support from nurses and other healthcare professionals, as well as from family members plays a crucial role in improving coping skills, self-care, and overall quality of life among this population. Educational programs and psychosocial interventions encourage patients' engagement in their self-care and acceptance of their condition.
Conclusion: Implementing personalized psychosocial approaches and strengthening supportive networks are essential for enhancing patients' resilience and effective adjustment to hemodialysis therapy.

Keywords: Psychosocial adjustment, social support, Chronic Kidney Disease, hemodialysis

Introduction

Psychosocial adjustment is a continuous process, helping patients adjust successfully to changing conditions of a chronic illnesses and medical procedures (Kapadi et al., 2023). Psychosocial adaptation is a multifactorial concept, including a variety of interpersonal interactions between individuals and their socio-cultural environment. Seven different areas of individuals' life have been reported to be affected by their illness. These include: (a) the individual's attitude and expectations regarding the illness and its treatment, (b) the work environment, (c) the family environment, (d) sexual relationships, (e) relationships with the extended family, (f) the social environment, and (g) psychological distress, which refers to stress-related thoughts and emotions (Derogatis et al., 1986).

Patients undergoing hemodialysis must continuously adjust to lifelong treatment, as they face a variety of side effects and complications. Poor adaptation is common to hemodialysis and may involve non-adherence to treatment, depression, ineffective coping, reduced social functioning, and diminished quality of life (Kapadi et al., 2023).

Successful adaptation may include a sense of control over disease management, acceptance of illness, and high levels of social support, combined with problem-focused coping strategies, positive health behaviors, and adherence to treatment (Sein et al., 2020). A key decision during the transition to renal replacement therapy is the selection of the treatment modality, such as hemodialysis or peritoneal Dialysis). Facilitating patients' involvement in choosing their treatment modality may enhance their ability to participate in decision-making, receive targeted education, build supportive relationships, and adapt effectively to their treatment (Liu et al., 2023).

The emphasis on psychosocial adjustment to hemodialysis relates to the acceptance of its

necessity, which involves a process where patients move from a state of rejection to acceptance (Liu et al., 2023). As a result, psychosocial interventions provide psychological, emotional, or social support and can help reduce distressing symptoms, increase social connection, strengthen coping strategies for disease-related challenges, and decrease anxiety and stress levels (Yang et al., 2024).

Psychosocial adaptation and treatment acceptance

In a study involving 79 hemodialysis patients it was showed that there was a significant psychosocial burden affecting the quality of life of individuals undergoing hemodialysis, with adaptation to illness and treatment being the most prevalent psychosocial issue (Hansen et al., 2023).

In a similar study involving 23 patients with CKD, it was found that patients felt unprepared to begin hemodialysis and explored alternative treatments in an effort to delay the start of dialysis. When they began hemodialysis, they experienced fear and concern about their future, but they adapted to treatment after six months being on dialysis. Family support was very important during that period. They eventually accepted that hemodialysis had become a part of their lives. Nevertheless, dialysis altered their diet and lifestyle, and impacted their psychological well-being, as they often experienced stress, while the majority of participants did not use effective coping strategies for managing their treatment (Niu et al., 2016).

Moreover, in the research study by Marthoenis et al., (2021) with 213 hemodialysis patients, adequate acceptance of illness was significantly associated with low levels of anxiety, good overall physical and psychological health, and high quality of life.

Psychosocial adaptation and transition to treatment

The transition to dialysis treatment is a critical period during which patients usually face significant physical, psychological, and social challenges. It has been found that the risk of mortality is high the first two months after treatment initiation (Liu et al., 2023). The study by Sahin (2019), involving 145 hemodialysis patients, found that the majority of participants experienced dialysis-related complications that hindered their ability to carry out daily activities and maintain autonomy.

Patients, were shocked when realized they would require lifelong treatment, regardless of whether they were previously aware of their CKD. Although the concept of lifelong therapy and the threat of death were distressing, acceptance of dialysis treatment seemed to be a realistic way to avoid further deterioration of their health condition. During the initial period, patients often described feelings of isolation and deprivation. Regular treatment helped them perceive a sense of purpose in their daily lives. Some reported that dialysis reminded them of life's limitations, prompting them to value their time more and engage in social activities (Liu et al., 2023).

Moreover, findings from the study by Kapadi et al., (2023) supported that social support, treatment acceptance, and resilience played a positive role in the multidimensional process of adaptation to hemodialysis. The results support the application of psychological models and interventions to improve the adaptation process in this population.

The study by Sein et al., (2020), involving 46 individuals with end-stage kidney disease, found that those with strong support networks, long-term positive relationships with dialysis center staff, and a sense of control over their condition were capable of managing distress, developing effective coping strategies for emotional issues, and achieving good adaptation to treatment.

Taking an active role in treatment

According to the results of the study by Kim and Cho (2021), involving 100 hemodialysis patients, self-care and frequency of self-care education influenced treatment adherence. In a research study by Santana et al., (2020), with 12 hemodialysis patients, the primary self-care was related to restrictions in their daily lives, such as controlling diet and fluid intake. Patients were required to follow therapeutic guidelines provided by healthcare professionals. Among these guidelines, transitioning to hemodialysis was seen as a responsibility they could not avoid and was considered "sacred" for their well-being.

Moreover, they reported feeling very tired, especially after dialysis sessions. While patients attempted to maintain self-care, they were affected by certain limitations, with fatigue being one of the main barriers to performing care-related tasks. Given that the initiation of hemodialysis treatment often causes confusion, information regarding the first dialysis sessions is an important factor in understanding and managing self-care (Santana et al., 2020).

Psychosocial adaptation and work environment

Many patients with CKD often experience reduced productivity, frequently leading to part-time work. They also struggle with balancing work and personal life, and even in kidney transplant recipients, full restoration of employment status is rarely achieved. The study by Alma et al. (2023), involving 634 hemodialysis patients, showed that 65% of participants reported moderate work ability. Thus, patients with CKD show low employment rates during dialysis treatment. Nevertheless, patients undergoing peritoneal dialysis tend to have higher employment rates compared to those on hemodialysis (Kirkeskov et al., 2021).

In a study by Pesantes et al. (2020) involving 36 patients with chronic conditions, financial consequences of chronic illness were reported as a stressful experience. Participants stated that limited income and financial resources were insufficient to purchase necessary food or medications.

Additionally, findings from Bay et al. (2024), with 318 patients in stages 4 and 5 of CKD, revealed low employment rates due to disease symptoms and overall burden. Half of the patients had lost their jobs due to the disease burden. Moreover, unemployed patients had a lower quality of life compared to those who remained employed. In contrast, those who managed to retain employment were less affected by kidney disease and reported a better quality of life.

Psychosocial adaptation and family relationships

In the study by Yapa et al., (2024), involving 20 participants with CKD, it was found that anxiety, depression, and physical symptoms led to an inability to perform daily activities and affected family life, negatively influencing family happiness, traditional family roles, and even their children's education. Some participants perceived themselves as a burden to their families, as other members had to take on additional responsibilities to care for their loved one. As a result, family dynamics were disrupted due to financial difficulties caused by job loss combined with increased expenses related to the high cost of dialysis.

However, in the study by Kukihara et al., (2020), which included 110 hemodialysis patients, greater family adaptability and communication were associated with higher resilience and better mental health. Patients whose family members demonstrated adaptability showed improved psychological well-being.

Furthermore, Riazuelo (2021) focused on the psychological experiences of couples and the impact of CKD on their relationships. Some couples exhibited great adaptability. However, over time, this adaptability may be challenged as health problems escalate due to the chronic nature of the illness. Many spouses reported that living with a sick partner was burdensome and caused emotional fatigue. The disease frequently disrupted the daily life of the couple and the family, leading to restructuring of family relationships and potentially weakening family bonds.

The study by Wang et al., (2024), with 252 hemodialysis patients, showed that higher levels of social support were significantly associated with better family resilience. Notably, the ability of families to draw strength from traumatic experiences and strengthen emotional bonds can provide a supportive family environment while simultaneously enhancing individual psychological resilience.

Psychosocial adaptation and sexual relationships

Chronic illness leads to physical fatigue, discomfort, hormonal changes, and psychological or behavioral fluctuations that contribute to sexual dysfunction. In the study by Shah et al. (2022), sexual dysfunction was a common problem among women undergoing hemodialysis, with most

participants reporting issues with sexual arousal. There was a significant negative correlation between various sexual functions (desire, pleasure, orgasm, lubrication, pain) and both increasing age and depression.

Moreover, in a similar study, patients undergoing hemodialysis with a fistula or catheter reported that their sexual lives were negatively affected, due to limitations in sexual positions. Beyond that, participants noted that they lacked sexual desire due to the presence of a dialysis catheter, fearing it might get wet, disconnected, infected, or damaged (Yildirim Keskin & Senturk, 2022). Therefore, numerous physical and psychological factors influence sexual functioning in individuals undergoing hemodialysis.

Psychosocial Adaptation and Psychological Distress

The overall prevalence of anxiety disorders among individuals undergoing hemodialysis is high (Huang et al., 2021). Common risk factors associated with increased anxiety symptoms include depression, multiple comorbidities, long hospital stays, and low perceived quality of life (Huang et al., 2021).

In the study by Alosaimi et al. (2020), involving 101 hemodialysis patients, psychosocial disorders were negatively associated with quality of life, emphasizing the importance of early detection and management of psychosocial disorders in these patients to improve their overall well-being. Similarly, in the study by Ouyang et al. (2023), which included 160 hemodialysis patients and 96 peritoneal dialysis patients, high levels of fatigue were reported. However, the severity of fatigue was lower in the peritoneal dialysis group compared to hemodialysis group.

Additionally, in the study by Nair et al., (2021), with 50 patients with CKD, participants perceived their illness as threatening and life-limiting, while they experienced CKD as more psychologically distressing than other chronic illnesses. In another study by Pawar et al., (2023), involving 21 hemodialysis patients, it was found that patients with high levels of grief exhibited withdrawal from dialysis, a disruption in their sense of self, and loss of social roles, while patients with lower levels of grief demonstrated positivity, integration of dialysis into their identity, and greater empathy (Pawar et al., 2023).

Psychosocial adaptation and social support

Social support has a significant impact on daily life of individuals with CKD, as it reduces distress caused by their illness and fosters a sense of psychological and physical well-being. Social support can be provided by healthcare professionals, as well as by patients' family, friends, and social environment (Alshraifeen et al., 2020).

Social support can be divided into formal support, which includes services provided by healthcare professionals and the healthcare system, and informal support, which is provided by individuals within the social network (family, friends, colleagues, social networks, volunteer organizations, church) (Jacobson, 1986).

The therapeutic process and the major changes in daily life related to dialysis treatment may reduce the ability of individuals to adapt and cope effectively with the difficulties arising from this specific therapy (Qiu et al., 2021). Therefore, a multifaceted approach is required that involves social, family, and psychological support, combined with a holistic approach to symptom assessment and management (Rhee et al., 2022).

Social support often includes both information and emotional support. Informational support refers to the provision of information that helps individuals make informed decisions about their treatment or deal with life events, while emotional support focuses on personal behaviors and aims at offering emotional assistance to individuals. It has been found that social support improves overall health, whereas lack of social support is associated with depressive symptoms, anxiety, frustration, and social withdrawal (Pan et al., 2019).

In the study by Paschke (2018), with 10 dialysis patients, it was found that the strengths used by patients to cope with their illness included the experience of positive emotions, autonomy, optimism, discipline, serenity, spirituality, and the contribution of

family and healthcare professionals. Similarly, in the study by Pan et al. (2019) involving 178 dialysis patients, it was found that those who received greater social support had better quality of life and fewer depressive symptoms compared to those who received less support.

The role of healthcare professionals in social support

Healthcare professionals need to assist patients with CKD to understand their future options, to identify their personal values, preferences, goals, and individual needs, and maintain their hope (Unsal Avdal et al., 2020; Rhee et al., 2022). They should offer mental and emotional support to individuals to help them adapt to their current condition and overcome problems and fears caused by the disease (Shad et al., 2019). Therefore, nursing interventions focused on promoting positive support and expanding patients' social networks may be an effective strategy for improving their psychological resilience (Qiu et al., 2021).

In the study by Combes et al. (2019), with 31 healthcare professionals, they found that patients with End-Stage Renal Disease experienced distress, while healthcare professionals did not feel confident in managing patients' distress due to lack of knowledge on how to recognize it and provide appropriate support to these individuals (Combes et al., 2019). It has been observed that nurses often lack sufficient time to listen carefully to patients on hemodialysis, resulting in patients feeling uncomfortable and having limited available information about their treatment (Benetou et al., 2020). Thus, nurses should create a supportive environment, provide education, and strengthen social support to improve self-management behaviors of individuals undergoing hemodialysis (Chen et al., 2018).

The role of family in social support

The influence of family or friends contributes to guiding individuals in order to adhere to treatment regimens, which may seem difficult for older patients with reduced cognitive function (Slaven et al., 2021). Shared decision-making must align with the values and preferences of both the patient and their family regarding the therapeutic approach (Deodhar et al., 2021). A study with 258 hemodialysis patients found that the presence of a family that adapts flexibly to changes in a demanding environment can contribute positively to mental health of individuals on hemodialysis (Qiu et al., 2021). Thus, the provision of mental health services is essential for both the patient and their family to address psychological distress associated with the disease (Powathil et al., 2023).

Social support and disease self-management in hemodialysis

Self-care is an adaptation strategy to life events and can improve individuals' independence and quality of life. Restoring the ability for self-care and reducing dependence on others have contributed to enhancing life satisfaction (Shad et al., 2019). Self-management refers to the process of education and support provided to individuals with chronic diseases to understand disease management, make informed decisions regarding care, and engage in healthy behaviors (Moreels et al., 2024; Noviana et al., 2021). It includes medical management of the disease (e.g., medication adherence), emotional management (e.g., coping with emotional difficulties related to chronic illness), and management of daily life (e.g., maintaining normality in daily activities) Moreels et al., 2024).

Education helps patients become informed about their disease, improve their self-management skills, and respond positively to emergencies, resulting in positive feelings such as a sense of control and self-efficacy (Diao et al., 2023). Shad et al. (2019) found that a self-care program based on Orem's theory could be effective in improving life satisfaction for hemodialysis patients by enhancing their self-care ability, encouraging medical compliance, and reducing dependence. The goal of Orem's theory is to prepare and assist patients in caring for themselves and gaining independence.

The results of the study by Szu et al., (2021) with 32 hemodialysis patients showed that friendships with other patients in the dialysis unit were the primary factor for their active participation in managing their treatment. By joining a group, patients were alongside others with the same condition and shared treatment. Participants emphasized that as

they gradually redefined their roles and lives, they regained confidence and adapted to an independent life. Their active involvement in managing hemodialysis positively influenced them, enabling them to acquire skills that helped integrate the restrictions of dialysis into their lives. When patients actively participate in managing their treatment, they have effective problem-solving and symptom management abilities, while also experiencing happiness, having interests, fulfilling life expectations, and expressing a positive outlook toward hemodialysis (Szu et al., 2021).

Self-management interventions for hemodialysis patients focus on providing education, skill training, counseling, and cognitive-behavioral therapy to facilitate daily activities, professional life, leisure activities, interpersonal relationships, role functioning, and social participation (Moreels et al., 2024).

Patient activation includes the readiness, willingness, and ability to manage their healthcare. However, it has been found that patients on hemodialysis exhibit lower activation compared to patients with other chronic conditions. The culture of safe and rapid hemodialysis, which is directed by staff leads to limited patient participation in clinical care and may hinder their ability to effectively apply guidance and self-management interventions. Patients with low self-management are less likely to recognize early warning signs of impending complications or rapid deterioration and to make appropriate decisions (Hussein et al., 2022).

The study by Noviana et al., (2021) involving 107 hemodialysis patients showed that 51% of respondents had high social support and 53% had good self-management. Similarly in the study of Slaven et al. (2021) with 1.944 patients with CKD, higher social support was associated with better measures of cognitive function and quality of life. Therefore, social support networks may help patients secure basic needs such as financial assistance, housing costs, and food security. It has been found that the higher the education level of individuals with CKD, the more active their participation in social networks (Noviana et al., 2021).

Additionally, the results of the study by Chen et al. (2018) with 410 patients with CKD showed a positive correlation between health literacy and social support with self-management behaviors, while social support from healthcare professionals had the greatest influence on self-management behaviors.

Therefore, tailored psychosocial intervention strategies can facilitate behavioral and lifestyle changes in individuals with CKD (Cardol et al., 2022). The findings of Taylor et al. (2021), with 15 patients on hemodialysis, showed that participation in a chosen artistic activity during dialysis had positive psychosocial effects on patients. Regardless of the type of activity selected, the involvement was perceived as therapeutic, improving mood and well-being, while also offering long-term benefits, such as enhanced self-esteem. Thus, engaging in enjoyable activities during hemodialysis may provide a motivational incentive to improve treatment adherence.

Patients can achieve a high level of independence through understanding and learning self-care behaviors. Therefore, education and empowerment programs are necessary to enable them manage their disease effectively (Shad et al., 2019). It is worth emphasizing that understanding the relationship between social support and quality of life in hemodialysis patients can provide guidance to healthcare professionals, family members, and social services about the importance of social support in this population group (Alshraifeen et al., 2020).

Conclusion: Psychosocial adjustment and self-management are essential in the care of patients undergoing hemodialysis. Social support from healthcare providers and patients' family is crucial for promoting emotional well-being, enhancing treatment compliance, and improving patients' quality of life. Thus, nurses and other health professionals must be adequately trained in order to offer meaningful psychosocial interventions to patients and support active engagement in health management. Enhancing interpersonal relationships and increasing health literacy can significantly improve patients' independence and satisfaction with life.

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