Social Support with Adherence in Undergoing Hemodialysis Therapy

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ABSTRACT

Adherence to hemodialysis therapy is critical to the quality of life and survival of hemodialysis patients. The compliance of patients undergoing hemodialysis can be influenced by a number of factors. Among the factors that can influence adherence to hemodialysis, social support is an intriguing one to examine further, as existing studies have demonstrated a lack of statistically significant correlation between perceived social support and hemodialysis. Further investigation is required in order to gain insight into the relationship between social support and patient adherence to hemodialysis therapy, This study utilized a quantitative, correlational, and cross-sectional research design involving 80 participants who had received hemodialysis for at least three months but no more than 12 months. Majority of respondents (70 individuals, representing 87.5% of the total sample) report having good social support, majority of respondents were classified as compliant in undergoing hemodialysis therapy, namely 48 respondents (60.0%). A statistically significant relationship between social support and patient compliance in undergoing hemodialysis therapy with an r value of .393. This indicates a low level of relationship with a positive direction. The medical team is expected to educate patients and their families about the importance of social support. Future research will likely explore additional factors contributing to patient compliance not only in hemodialysis but also in other therapies, such as dietary and fluid intake

Keywords: *Adherence, Hemodialysis, Social Support.*

INTRODUCTION

Adherence to hemodialysis therapy is critical to the quality of life and survival of hemodialysis patients, reducing problems such as nausea, vomiting, itching, fluid overload and hyperkalemia. Furthermore, adherence to hemodialysis has a beneficial impact on patients' nutritional status, weight, serum albumin levels, and overall quality of life, as well as physical health (Zhou et al., 2023). Non-compliance is associated with an increased risk of weight gain, oedema, elevated serum phosphorus levels and higher depression scores.

The compliance of patients undergoing hemodialysis can be influenced by a number of factors, including psychosocial issues (Valsaraj et al., 2021), the patient's perception of the disease (Oliveira et al., 2023), age, marital status, socioeconomic status, motivation, family support and knowledge about the treatment and various interventions **(Abdul-Jabbar & J. Kadhim, 2022; Sapkota et al., 2022)**. These factors play an important role in influencing patient compliance with hemodialysis therapy.

Among the factors that can influence adherence to hemodialysis, social support is an intriguing one to examine further, as existing studies have demonstrated a lack of statistically significant correlation between perceived social support and hemodialysis adherence **(B. Nuñez, 2024; Dsouza et al., 2019; Ghimire, 2018; Untas et al., 2011).** Further investigation is required in order to gain insight into the relationship between social support and patient adherence to hemodialysis therapy.

LITERATURE REVIEW

The kidneys are responsible for maintaining equilibrium within the body. They excrete metabolic waste, regulate fluid and electrolyte balance, and improve bone integrity, among other functions. These two bean-shaped organs interact with the cardiovascular system to maintain haemodynamic stability, which can be observed through the glomerular filtration rate (Dalal et al., 2023). The glomerular filtration rate (GFR) is a key indicator of kidney function, measuring the flow of plasma from the glomerulus to Bowman's space over a given period. A reduction in GFR is indicative of kidney damage. A decline in the glomerular filtration rate (GFR) is classified into five stages. Stage 1 is characterised by kidney damage with a normal or elevated GFR (>90). Stage 2 kidney damage with a mild GFR of 60–89. Stage 3a is characterised by mild to moderate kidney damage, with a GFR of 45-59. Stage 3b is defined by moderate to severe kidney damage, with a GFR of 30-44. Stage 4 is characterised by severe kidney damage and a GFR of 15-29. Stage 5 is defined by kidney failure, with a GFR of less than 1. 5 (dialysis) with a clinical action plan of renal replacement therapy or hemodialysis (Kaufman et al., 2023; L. Lewis et al., n.d.).

As defined by Kusuma et al. (2019), hemodialysis is the process of cleaning blood through filtering blood outside the patient's body using a dialysis machine (Triyono et al., 2020). Adherence to hemodialysis therapy is a crucial element in the management of end-stage renal disease, as non-adherence can result in significant health complications, increased mortality, and elevated healthcare costs (Dsouza et al., 2019; Ghimire, 2018).

One factor that influence patient adherence is the provision of social support, particularly from family members, close friends, and the medical team. Social support can be defined as the assistance or aid provided by individuals in a patient's social network, encompassing information, material assistance, attention, and verbal and non-verbal counsel (Adawiyah & Jacobus, 2019). Moreover, Chaerani and Rahayu (2019) define social support as a form of comfort, attention, appreciation, or assistance that patients receive from other individuals or groups. Patients may receive social support from parents, family members, and individuals in their immediate social environment.

METHODS

This study employs a quantitative research design with a correlational approach and a cross-sectional methodology. The study population comprised patients undergoing hemodialysis therapy in the Melati hemodialysis room of Prof Kandou Hospital in Manado, Indonesia, with a follow-up period of less than 12 months and a total of approximately 100 patients. The sampling method employed was purposive sampling, which is a non-probability sampling technique. In determining the sample size, the researchers employed the Slovin formula, which yielded a sample size of 80 patients. The study included patients who had undergone routine hemodialysis therapy for at least three months in the Melati hemodialysis room and had undergone hemodialysis for no more than 12 months, as evidenced by the signing of informed consent. Patients who were physically weak and unable to interact with others were excluded from the study.

Following the requisite permissions from the hospital and ethics committee, the data collection process was initiated. During data collection, the researchers introduced themselves and provided an explanation of the aims and objectives of the study to the patients. Patients who express a willingness to participate in the study by signing an informed consent form thereby indicate their approval to act as research respondents without any element of coercion. Subsequently, the researcher distributed questionnaires to the respondents. Where respondents have limitations in reading or writing, researchers provide assistance. Once the data had been collected, the researcher expressed gratitude to the respondents for their participation in the questionnaire. Subsequently, the data was entered into Microsoft Excel and processed using SPSS.

The research instruments employed in this study are measurement tools for social support questionnaires and patient compliance during hemodialysis, adapted from Windarti et al. (2018). These have been validated for reliability and validity, with a valid value of $r > 0.632$ and an alpha value of >0.6. The social support questionnaire comprises 16 statements, while the social support questionnaire comprises six statements. The interpretation of the social support questionnaire is as follows: 76-100% indicates good social support, 56-75% indicates sufficient social support, and less than 56% indicates inadequate social support. The interpretation of compliance with undergoing hemodialysis is as follows: positive or good compliance is indicated by a T-score of 50 or above, while negative or poor compliance is indicated by a T-score below 50.

To describe social support, the researchers employed the frequency and percentage formula. For the description of compliance with hemodialysis therapy, the mean value and standard deviation were used. To ascertain the significant relationship between social support and compliance with hemodialysis therapy in the Melati Hemodialysis Room at Prof Kandou Hospital in Manado, the Spearman's rank-order correlation coefficient was used, as the data were not normally distributed.

RESULTS AND DISCUSSION

Table 1.

Social Support Category

Social Support	Frequency	(%)
Good	70	87.5
Enough	4	5.0
Less	6	7.5
N	80	100

The results and subsequent discussion are presented in Table 1. Overview of Social Support. The results demonstrate that the majority of respondents (70 individuals, representing 87.5% of the total sample) report having good social support, while 6 individuals (7.5%) indicate having less social support, and 4 individuals (5.0%) report having sufficient social support.

The analysis conducted by the researcher indicates that the most prevalent form of social support received by patients is emotional support, assistance during hemodialysis therapy, and affection. These forms of social support contribute to patients' sense of comfort and well-being. A notable deficiency in social support is informational support, as patients often lack insight into the disease from their family members.

In previous research, good social support has been demonstrated to take the form of appreciation and praise, particularly when patients are able to undergo hemodialysis therapy effectively. The receipt of rewards from close associates, particularly family members, can serve to motivate patients to strive for improvement (Ode Unga et al., 2019).

Table 2.

Overview of Adherence

Kategori Kepatuhan	Frequency	Percent (%)
Compliant	48	60.0
Non-Compliant	32	40.0
N	80	100

Table 2 shows that the majority of respondents were classified as compliant in undergoing hemodialysis therapy, namely 48 respondents (60.0%). However, a proportion of respondents were classified as non-compliant in undergoing hemodialysis therapy, namely 32 respondents (40.0%). The researcher's analysis suggests that this discrepancy may be attributed to the fact that 72 respondents reported routine hemodialysis, while 58 respondents indicated occasional lapses in adherence, and 48 respondents reported deviations from the prescribed schedule.

A number of existing studies have reached the conclusion that social support is one of the factors that contribute to adherence among patients undergoing hemodialysis (Susilawati et al., 2018; Windarti et al., 2018). Nevertheless, concerns pertaining to the overuse of

medication, in addition to the considerable burden and severity of disease symptoms, are associated with instances of non-adherence (Mechta Nielsen et al., 2023).

Table 3.
Relationship Between Social Support and Adherence

Variable	N	Correlation coefficient (r)	P Value
Social Support	80	.393	.000
Adherence			

The relationship between social support and adherence is demonstrated in the table 3. The results demonstrate a statistically significant relationship between social support and patient compliance in undergoing hemodialysis therapy in the Melati hemodialysis room at Prof Kandou Hospital Manado, with an r value of .393. This indicates a low level of relationship with a positive direction, whereby the higher the social support the patient receives, the higher the compliance of the patient undergoing hemodialysis.

In accordance with the existing theory proposed by Windarti, Suhariati, et al. (2018), it can be posited that patients who receive comprehensive support from their surrounding environment will demonstrate greater compliance and enthusiasm in undergoing hemodialysis therapy. Social support has been identified as a key factor in enabling patients to adhere to their therapy regimens (Susilawati et al., 2018). Patients who receive social support may perceive that they are loved, valued, and integrated into a social group that can provide assistance to others who are suffering (Bella & Rustika, 2018). The results of the analysis conducted by the researchers, based on the results of the questionnaire obtained during the study, indicate a significant relationship between social support and patient compliance in undergoing hemodialysis therapy. It was found that the more social support a patient receives from their family, the more compliant they are. However, the strength of the relationship is relatively low.

The findings of this study align with those of previous research, indicating a significant association between social support and compliance. However, the strength of this relationship varies across studies (Windarti, Ike, et al., 2018; Agustina et al., 2022; Suriati et al., 2022). In the study conducted by Susilawati et al. (2018), it was found that the presence of positive social support from family members is a significant factor influencing adherence in hemodialysis patients.

CONCLUSIONS, IMPLICATIONS, SUGGESTIONS, AND LIMITATIONS

Most of respondents reported receiving good social support from their closest social networks, which may have contributed to their adherence to hemodialysis therapy. The results demonstrated a significant positive correlation between social support and patient compliance with hemodialysis, with a relatively weak strength of association. In other words, the higher the level of social support received by respondents, the greater the likelihood of patient compliance with hemodialysis therapy.

The provision of social support is an effective method of enhancing patient adherence to hemodialysis therapy. The various forms of social support have been demonstrated to exert a significant influence on this adherence. It is imperative that family members, the medical team and those closest to the patient are aware of the importance of their role in providing social support to patients undergoing hemodialysis therapy. It is anticipated that the medical team will disseminate this understanding to patients and their families. It is anticipated that future researchers will examine additional factors that may contribute to patient compliance, not only in the context of hemodialysis therapy, but also with respect to other therapies, such as compliance with dietary and fluid intake recommendations.

It should be noted that this study is subject to several limitations. These include the cross-sectional nature of the data collection period and the narrow focus on hemodialysis compliance.

ACKNOWLEDGEMENT

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