

Nurses' Behavior and Support Systems as External Factors of Nurse-Patient Interaction in the Dialysis Unit

Ika Yuni Widyawati, Ika Nur Pratiwi, Laily Hidayati, Tintin Sukartini, Abu Bakar and Lailatun Ni'mah

Faculty of Nursing Universitas Airlangga, Kampus C Mulyorejo, Surabaya, Indonesia

Keywords: Nurse-Patient Interactions, Nurse Behavior, Social Support, Dialysis Patient, Interpretative Phenomenological Approach.

Abstract: The quality of nurse-patient interaction is one factor that affects patients' adherence. However, a study providing an overview of factors in nurse-patient interaction for improving or maintaining dialysis adherence in patients has not been found. The aim of this study was to provide an overview of the various factors of the interaction between nurses and patients undergoing dialysis, in adherence with fluid and dietary restrictions. A qualitative research design with an interpretive phenomenology approach was used in this study. The unit of analysis used was the disclosure or exposure of external factors from the nurse-patient interaction process, especially in fluid and dietary restrictions. Fifteen participants were selected based on the following inclusion criteria (patients with a minimum age of 18 years, receiving similar dialysis therapy for at least 3 months, in stable medical condition [not currently in acute condition requiring immediate medical treatment], and not experiencing psychological problems). In-depth interviews accompanied by field notes were used in this study. Analysis of the themes based on the goal of the research included nurses' behavior and social support. The results provide an overview of findings regarding nurse-patient interaction factors that can serve as baseline data for the development of care, both in nursing assessment and intervention, aimed at improving the adherence to dietary and fluid restrictions of dialysis patients.

1 BACKGROUND

Patients on dialysis face many challenges in their lives, in which they have to recognize their disease and follow, cope with, and adapt to their treatment and changes in their lives and behavior (Royani et al., 2013). Patients undergoing dialysis must follow rules to make their lives adequate (Kidney Disease: Improving Global Outcomes [KDIGO] CKD Work Group, 2013). Physically, patients undergoing regular dialysis have kidney damage that affects the body's ability to maintain metabolism, fluid, and electrolyte balance, leading to a uremic condition (Black & Hawks, 2009; Smeltzer & Bare, 2008).

Physical changes, the complexity of the rules to be followed, and the psychological stress experienced by the patient continues throughout their life (Kaptein et al., 2010). Various stressors they experience means that dialysis patients are unable to accept changes and feel they have no control over their lives (Warrior, 2015).

Not all patients are in favor of the treatment process and this affects their willingness to control their behavior (Warrior, 2015; Wijaya, 2005). The failure of management and treatment of dialysis patients are due to the non-adherence of patients (Addo, 2015). Non-adherence of patients on dialysis, regarding fluid restriction and diet programs, has an impact on the occurrence of complications, an increased length of stay, decreased productivity, and can even cause death (Alikari et al., 2015; Payne et al., 2013; Saran et al., 2003).

Interventions to improve the adherence to diet and fluid restrictions in dialysis patients have been conducted. The success of interventions to improve adherence depends on a series of factors, such as the realistic assessment of the knowledge and understanding of the patient regarding the regimen of therapy given, clear and effective communication between health professionals and patients, and fostering a sense of trust in the therapeutic relationship (Martin et al., 2005).

Nurses play an important role in this regard. In addition to providing care, nurses also provide additional assistance to patients in the form of interpersonal support and encouragement that aims to help patients effectively cope with stress, improve their welfare, and accelerate their recovery (De los Ríos Castillo & Sánchez-Sosa, 2002). The partnership and collaboration that exists between health professionals and patients can maximize compliance, foster patient satisfaction, and improve the health of patients (Martin et al., 2005).

The results of literature studies show that some studies confirm that nurse-patient interactions contribute to patient compliance. Research conducted by Ningsih, Rachmadi, and Hammad (2012), revealed that the rate of patient compliance does not depend on demographic data, but the quality of the interaction between health and other factors. Other studies show that factors affecting fluid intake is related to education, self-concept, patients' knowledge, health professionals, and family involvement (Kamaluddin, 2009). Both studies used quantitative research, but the interaction of patients and nurses is a subjective process, so it is necessary to conduct research using a qualitative design.

Research providing an overview of nurse-patient interaction factors in fluid-limiting and dietary adherence in dialysis units is relatively limited and necessary. The qualitative research prior to the topic of interaction factors of nurses and patients had been conducted by Loghmani, Borhani, and Abbaszadeh (2014) and focuses on the excavation of factors that influence the communication aspects between the nurses and patients' families. The aim of this study is to provide an overview of various factors in the interaction process of nurses and patients undergoing dialysis in compliance with fluid and dietary restrictions.

2 METHODS

This research uses a qualitative research design and the chosen approach is interpretive phenomenology because the researcher intends to interpret the findings of the research. In this case, the researcher intends to analyze the activity of nurses and dialysis patients to obtain a picture of various factors in the interaction process between them. The unit of analysis used in this study is the disclosure or exposure of external factors in the nurse-patient interaction process.

There were 15 patients included in this research and they were selected based on inclusion criteria. The inclusion criteria was patients with a minimum age of 18 years, have been receiving similar dialysis therapy for at least three months, in stable medical condition (not currently experiencing an acute condition requiring immediate medical treatment), and not experiencing psychological problems.

In-depth interviews (*in-depth interviews*) equipped with field notes (*field notes*) were used in this study. The validity of the data was conducted by confirming the transcription of the interview results with the participants. Inter-researcher and theory triangulation were used to maintain data stability and maintain the objectivity of the data. The aim to triangulate data by involving fellow researchers was to enrich the findings of results, while theory triangulation conducted by researchers, using the theory of nurse-patient interactions from Imogene King, provided another perspective regarding what nurse-patient interaction is. This research has been ethically approved by the Medical Research Ethics Commission Faculty of Nursing Universitas Airlangga No.: 326-KEPK.

3 RESULTS

Background data of participants are provided in Table 1. Participants described external factors affecting the enhancement of adherence through nurse-patient interaction into two themes: 1) nurse behavior; and 2) social support. Descriptions of these themes and sub-themes can be seen in Table 2.

Table 1: Specific characteristics of the participants.

Characteristics	n
Gender	
Male	7
Female	8
Age	
Young Age (18–65 y.o)	9
Middle Age (66–79 y.o)	6
Education	
Elementary	3
Middle	4
Higher	8
Length of Dialysis (in years)	
<5 years	9
5–10 years	6

Table 2: Description of external factors affecting nurse-patient interaction in enhancing diet and fluid-limitation adherence.

Themes	Sub-themes	Transcription Quotes
Nurses Behavior	Caring person	<p>"I am most happy and feel welcomed if the nurse smiles at me. It's like she gave me an opportunity for us to get closer to each other and discuss anything including my difficulty to limit consuming fruit and drink a lot of water" (P10).</p> <p>"Ns. Xxxx, I've always loved her, it's always a wonderful discussion with her. She is a good listener, tries to know what kind of reason that makes it difficult for me to adhere. She never judges me" (P3).</p> <p>"I am so pleased to communicate with the nurse when she (the nurse) is willing to do that. The nurse's attitude showed that she opens herself to discuss with me and my wife" (P8).</p> <p>"... if the nurse was nice and friendly ... it would be nice for me to start to communicate with her" (P12).</p>
	Facing with the careless one	<p>"I always trust nurses who are very skillful. I have a perception that skillful nurses are the ones who have more knowledge than others. When she gives me advice, I can be sure that worth for me" (P5).</p> <p>"... I'd rather not try to communicate with the nurse who keeps silent and does not even smile when I meet her" (P2).</p> <p>"I always try what the nurse said, because I believe they know better than me. What we want as a patient is the nurse can give us enough information, so we can avoid the wrong step" (P4).</p> <p>"I feel afraid when the nurse seems not confident with herself. How can I trust what she says when she looks hesitant and not so sure?" (P13).</p>
Social Support	Source of social support	<p>"My wife who became a security guard at the same time is my source of strength. She always supports me to communicate with all nurses when I feel some difficulties" (P2).</p> <p>"My mom who accompanied me through all this from the beginning. She initiated interaction with nurses, doctors and others" (P8).</p> <p>"When I feel not in the mood to interact with others, including nurses, my sister is always beside me and encourages me to do so" (P10).</p>
	The form of Social support	<p>"Fellow patients are giant shoulders for each other. When we met and chatted, we motivate and inform each other" (P12).</p> <p>"My wife always motivates me" (P3).</p> <p>"Talking with nurses and doctors, or fellow patients provides additional information for me" (P6).</p> <p>"Discussions with other people makes me feel relieved" (P1).</p>
	The influence of social support	<p>"Fellow patients always ask or discuss with me, how can I stay healthy and fit even though it was already five years of dialysis. The nurses used me for an example when they gave advice to other patients and yes it's an honor to me" (P15).</p> <p>"The more motivated I am from nurse or fellow patients more cheerful I am" (P10).</p> <p>"Mostly I start to interact with nurses, other patients or their families because they welcome me to the society. It's a comfort to me" (P3).</p> <p>"... maybe because I am understanding much better now about my disease and the treatment that I should follow, I think that good cooperation between me and the nurse is beneficial for my life too" (P14).</p> <p>"I feel more relaxed right now, try to face everything ahead. If I need more information I can ask the nurse, doctor or other patients. I am enjoying every process" (P2).</p> <p>"As a moslem I should be ikhlas, this is what makes me look patient through all five years" (P4).</p> <p>"I can tell you that I am more receptive to information now and have started reducing negative thoughts in my head" (P13).</p>

3.1 Nurses' Behavior

This nurses' behavior factor was demonstrated by all participants. Nurses' behavior within the nurse-patient interaction process, supports patient compliance behavior in terms of diet and fluid restriction. The image of the nurse as a caring person is shown by the behavior of a person full of smiles, a good listener, an open-minded attitude, friendly, and skillful.

When a nurse is careless, their behavior in the nurse-patient interaction process is less supportive of patient compliance in terms of diet and fluid restriction. Less caring nurses are portrayed by participants as having less attention to the needs of patients, are less informative, and display hesitant behavior during discussions or actions.

3.1.1 A Caring Person

Nurses who show a caring attitude to patients interact more intensively, including conveying various matters related to compliance that must be achieved. Participants conveyed that there are many rules to follow, which tire and bore patients.

Communication with health workers must be an effort to discuss reducing the risk of non-compliance. Participants revealed that communication, as part of the nurse-patient interaction process, can be realized when the nurse shows a caring behavior towards a patient. Patients feel they can initiate more intensive and open interactions with nurses. Various compliance issues can be well discussed the best solutions can be sought. An overview of a caring nurse from a participant's perspective is shown in the transcription quote shown in Table 2.

3.1.2 Facing Careless Nurses

Participants illustrate that their interactions with nurses sometimes caused a decline in their good spirit. Some participants said that this was because the interaction was with careless nurses.

Participants said that nurses who were less attentive to the needs of patients, less informative and displayed hesitant behavior during discussions or actions made the patient feel disbelief regarding the care or advice by nurses. An overview of careless nurses from the participants perspective is shown in the transcription quotes in Table 2.

3.2 Social Support

Social support is the last theme that emerges as an external factor affecting nurse-patient interaction. This theme consists of the following sub-themes: 1) the source of social support, including the family, parents, and peers; 2) form of social support (in the categories of emotional [attention and motivation], informational, instrumental/material [lightening burden] and appreciation [pride]); 3) the influence of social support (consisting of a change of attitude [cheap smile, initiation of communication and cooperative], and psychological changes [feeling more calm, more patient and having positive thoughts]).

3.2.1 Sources of Social Support

The nurse-patient interactions described by the participants were not only influenced by the two individuals involved, i.e. patients and nurses, but also by other individuals who were in the circle of interactions. Some participants described their experiences when initiating interaction with nurses during which the participants were new to undergoing dialysis and not yet aware of the rules. At that time, nurse-patient interaction is not immediate but is initiated by the spouse or other family member.

Participants illustrate that, at the time of the initial dialysis, the patient felt denial with the conditions to be faced. Dialysis is not a preferred treatment option, so in the early days of patient's diagnosis, they prefer to be left alone and avoid interaction, not only with health workers, but also with family members or friends.

Participants also described the nurse-patient interaction process after the first year of dialysis. Dialysis patients are in a routine, such as patients, who must undergo hemodialysis (HD) (twice a week, four or five hours each time) and strive to remain obedient to the rules described, under various conditions or complications during dialysis or post-dialysis, and various other problems (whether physical, psychological, social, or economic). These conditions create a new tension in the nurse-patient interaction process.

Participants convey frequently that the good intentions of nurses in giving warnings or reassertions cause a feeling of pressure on the patient. This also occurs in the nurse-patient interaction process associated with adherence to diet and fluid restriction, therefore patients may refuse to interact with nurses. Therefore, nurses still must

communicate various things that are needed through existing support systems. The source of social support in the participant's view is shown in the transcription quotes in Table 2.

3.2.2 Forms of Social Support

External factors of social support that influence the nurse-patient interaction process is described by participants in various forms, such as emotional support, informational support, instrumental/material support, and appreciation. Participants said that the various forms of support they have received are needed by patients undergoing dialysis.

Some participants said that dialysis and all the rules that must be followed are an extraordinary burden of life, so the various forms of support that are provided can lighten the burden. The participants' views of social support are shown in the transcriptions in Table 2.

3.2.3 The Influence of Social Support

Social support was described by participants as providing a positive influence on nurse-patient interaction. Positive influences felt by participants can change participants' attitudes and support them in adhering to fluid restrictions and dietary rules. Changes experienced by participants include changes in attitudes and psychological conditions.

Participants conveyed that nurses' efforts in approaching patients when they are not being cooperative can soften the patient and change their psychological condition. Eventually, the nurse-patient interaction process is more intensive and helps the psychological condition to improve as is support provided by family or other patients. The influences of social support from the participants' perspective are shown in the transcription quotes in Table 2.

4 DISCUSSIONS

Nurses' behavior appears to be one of the themes that emerges as an external factor affecting nurse-patient interaction. The nurse-patient relationship is a means of exchanging information and their involvement in care (Millard, Hallett, & Luker, 2006). Therefore interpersonal nurse-patient interactions should be an important element of patients involvement in care and help to determine the success of patients including their adherence to

treatment recommendations (Chatwin, 2008; Nordby, 2007; Stoddart et al., 2012).

Nurses are trained to interact well and are expected to have interpersonal dimensions that help the patients being treated (De los Ríos Castillo & Sánchez-Sosa, 2002). Nurses in special units, such as dialysis units, also receive training to improve their competence and abilities.

The nurse-patient interaction process is seen in nursing and caring situations (Scheel, Pedersen, & Rosenkrands, 2008). Caring is evidence of the application of interactions that embody cognitive, aesthetic, and competence skills (Scheel, Pedersen, & Rosenkrands, 2008). Participants stated that a caring attitude made the patient feel at ease and they felt they had the support to pass the day successfully in the dialysis unit.

The caring attitude shown by nurses make patients undergoing dialysis more comfortable in openly discussing their adherence. This is consistent with research performed by Owens (2006) whose research says that the verbal and non-verbal caring behavior of the nurses influences and improves patients' medication adherence.

Qualified nurses will certainly gain the trust of patients, and vice versa. If a nurse cannot act according to the expectations of patients, this will certainly cause stress on the patient and affect the interaction process (Garcia et al., 2014; King, 2007). Skilled nurses who create a good interpersonal relationship will make patients more open in sharing difficulties and experiences to achieve and maintain their health (Caris-Verhallen, Timmermans, & Van Dulmen, 2004; Zhang et al., 2001).

The non-caring response expressed by some participants referred to previous experiences in which participants received treatment from nurses who did not show good competence when acting; they knew this because the nurse who treated them was new to the unit. The clinical experience of the nurse will help build the nurse's competence (Kim & Kim, 2015). Nurses who have minimal experience will certainly experience barriers in interacting with patients. A hesitant attitude in acting may arise as a nurse's self-precaution.

A less informative or discriminatory attitude expressed by the participants is also an important note in nurse-patient interaction. The interaction between nurses and patients is not merely an interaction in the form of communication but every item that connects the nurse and their patient will directly show how the interaction between them is intertwined. Both positive verbal and non-verbal interactions will certainly help build a therapeutic

atmosphere among nurses and their patients. Interaction, in the form of poor communication, will have an impact on the emotional discomfort of patients (Williams & Irurita, 2004).

In this research, social support became an external factor that influenced the nurse-patient interaction process. The participants stated that social support components were helping them to initiate better communication with nurses. Therefore, keeping them motivated in knowing more about their diet and fluid regimen. As we all know, dialysis patients must adhere to many lifestyle changes, including diet and fluid restriction. Adherence to diet, fluids, and dialysis is the cornerstone of renal failure treatment (Ahrari, Moshki, & Bahrami, 2014).

The burden of life and the burden of the disease can make them become reclusive to others, including nurses; this is a detrimental for patients. However, nurses should give advice to support patients and encourage them to adhere. Providing a good nurse-patient interaction process is important for healthcare professionals of dialysis centers. This can support communication with the patient, and convince and motivate them. Therefore, all barriers must be broken to persuade HD patients and bring them into adherence behaviors (Victoria, Evangelos, & Sofia, 2015). Social support from their families provide patients with practical help buffer the stresses of living with the illness (Miller & DiMatteo, 2013).

Much research has shown that social support correlates with treatment adherence behaviors (Vardanjani et al., 2013; Miller & DiMatteo, 2013), dietary adherence and fluid restrictions (Ahrari, Moshki & Bahrami, 2014), medication adherence (Scheurer et al., 2012), but research that demonstrates the correlation of social support and nurse-patient interaction was less known.

5 CONCLUSIONS

Based on information that has been described in the research and analysis discussion, the researchers have highlighted that there are two external factors affecting nurse-patient interaction: nurses' behavior and social support. The results of this study are expected to provide a material consideration for proper nursing care and the development of appropriate nursing interventions for each issue that was experienced by patients in each phase, as well as materials for the professional development of nurses and quality improvements in nursing.

ACKNOWLEDGEMENTS

The researchers are grateful to all participants in this study.

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