



Adherence to Nursing Ethical Principles: Perspectives of Nurses and Patients in Dialysis Departments of Ahvaz: A Cross-Sectional Study

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Abstract

Background: The critical nursing care for hemodialysis patients is one of the most effective factors to achieve promising results. Therefore, the aim of the current study was to comparison the perspectives of nurses and patients in dialysis departments.

Methods: A total of 225 participants were involved, comprising 80 nurses working in hemodialysis wards and 145 patients receiving hemodialysis treatment. Data collection was carried out through a questionnaire, and ANOVA was used for data analysis through SPSS.

Results: The demographic analysis indicated that the predominant patients were male individuals aged between 20 and 70, with the majority holding a diploma as their highest level of education. In contrast, the nursing staff was primarily female, and their educational qualifications were notably significant. The average score and standard deviation for the total consideration of nursing ethical principles among the hemodialysis patients and nurses were recorded at 5.32 and 0.25, respectively, compared to 6.04 and 0.31 for the nurses. Furthermore, both groups exhibited significantly higher scores in the areas of professional skill and respect when in comparison to other evaluated items.

Conclusion: According to the obtained results, consideration of the nursing ethical principles is necessary to improve the patients' health condition in critical care wards. Additional investigations are required to develop and standardize assessment tools for evaluating nurses' professional ethical practices in alignment with the ethical codes applicable to nurses in Iran.

Keywords: Adult, Aged, Codes of ethics, Educational status, Hospitals, Iran, Middle aged, Nursing staff, Optimism, Renal dialysis, Respect, Surveys and questionnaires, Young adult

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Introduction

The nurses are the largest group of service providers in the health care system. They have a significant impact on the quality of health care. Accordingly, consideration of the ethical rules could be an effective factor for improving the nurses' performance in order to provide appropriate health care services (1). All nurses have faced moral challenges in their activities fields such as responsibility to strive to advance methods of access to safe, desirable and quality care and to provide high quality nursing care directly and without discrimination and judgment to all patients. Respecting to the patients' rights and treating patients without considering their dignity is an integral part of the health care system (2). Based on the professional ethics, nursing care raises the standards of the patients' well-being, respects the patients' choice, and guarantees the privacy and safety (3). Nurses are advocates for patients and should find a balance while delivering patient care. There are four main principles of ethics: autonomy, beneficence, justice, and non-maleficence (4).

Chronic kidney disease is a spectrum of various pathological processes leading to an irreversible kidney function deficiency which requires critical treatments such as dialysis and kidney transplantation (5). Hemodialysis is one of the successful and well-known methods to control renal failure. In Iran, hemodialysis is the most common kidney replacement therapy as well (6). Patients undergoing hemodialysis treatment are needed to be continuously hospitalized in the dialysis department. The patients with kidney failure undergo dialysis treatment usually 3 times a week and each time for 3-4 hours (average 9-12 hours per week). Therefore, dialysis department is considered as their second home. During the dialysis, nurses are responsible for direct care of patients and spend more time with them compared to other health care professions (7). Health care is a moral imperative and conscious action, defined as physical and emotional care, to promote the patients' sense of safety (8).

Ethical dilemmas are quite common within the nursing field, necessitating a foundational theoretical comprehension of ethical decision-making to address complex ethical challenges effectively. The establishment of a nursing code of ethics serves

as a means to articulate the collective values and responsibilities inherent to the profession. These guiding principles not only influence the decisions and actions of nurses but also disseminate essential information to the global nursing community. Nursing services should be patient-centered care according to the characteristics, biography, interests, and cultural, social and physiological symptoms of each patient (9). Thus, the technical care and patient-oriented care complete each other. In critical care departments, due to the vital and complex conditions of the patients, nursing care behaviors are of particular importance. Immediate changes in the physical and mental condition of the patients hospitalized in the hemodialysis department may expose them to serious risks (10). Therefore, special attention to the patients' demands and precise care to support them is considered essential. In this regard, Larson *et al* believe that if nothing improves except nursing care in the hospital, there is still very good results which are obtained from the treatment process (11).

According to the several studies in countries where the autonomy and patients' rights are the focus of care, nurses have evaluated the care related to emotional, psychological and social demands of patients as more important (12-14). However, multiple studies have addressed the physical needs of patients more (15-16). Although, there are some studies in which nurses value both physical, psychological and social components of care in equal manner (17,18). In this context, the results of previous studies documented that nursing care services require major reform so as to make the nurses feel more responsible for caring for the patients, be skilled and accountable in providing the safest and high-quality services, and play a key role in continuing care (19).

A few studies have been conducted on the level of adherence to ethical codes in medical staff such as nurses, but the results are contradictory, while no study has been conducted on nurses' and patients' understanding of nursing care behaviors in hemodialysis departments, and knowing their perspective is a fundamental step in improving care behaviors, quality and patient satisfaction, hence the current study aimed to investigate the perspective of patients and nurses in hemodialysis departments of educational hospitals of Ahvaz Jundishapur

University of Medical Sciences, Iran, regarding the nursing ethical principle.

Materials and Methods

The current research is a descriptive, analytical and cross-sectional study which was conducted in Ahvaz hospitals affiliated by Ahvaz Jundishapur University of Medical Sciences, Iran, during 2022-2023. The sample size is based on the study by Murti *et al* in 2012 regarding the average score of patients' perspective to the observance of professional ethics by nurses and the related factors (19). Considering the probability of type 1 error, 0.05 and precision 4, the sample size estimated was 50 nurses and 200 patients which randomly selected from the dialysis departments in Ahvaz hospitals. Since the person distributing the questionnaire did not work in the dialysis departments, the questionnaire was distributed without any prior knowledge from the nurses or patients. The questionnaire was distributed to the patients and nurses in person and collected after completion. The inclusion criteria for patients were included, 12 years old at least, hospitalized for 3.5 hours at least, desire to participate in this study and no mental disorders. Also, the inclusion criteria for nurses were the activity in the dialysis department for 6 months at least. The data collection method was a questionnaire form. The questionnaire consists of two parts and the validity and reliability have been measured in previous studies. The first part of the questionnaire includes demographic data (the demographic data were designed based on nurses or patients), and the second part of the questionnaire was taken from the values of nursing ethics approved by the Iran Ministry of Health in 2013. The questions were associated with the consideration of 12 components of nursing ethical principles from the nurses and patients' perspective, which were designed by Likert scale with the options of completely agree (score: 5), agree (score: 4), relatively agree (score: 3), disagree (score: 2) and completely disagree (score: 1). The content validity method was used to determine the questionnaire validity. For this purpose, the content of the questions was analyzed by 5 faculty members, and Cronbach's alpha coefficient was utilized to determine the reliability and validity of the questionnaire as an internal correlation coefficient. Then, before starting the study, the permission was

obtained from the Ahvaz Jundishapur University of Medical Sciences, and necessary explanations were defined to the research samples regarding the objectives of the research and the confidentiality of the obtained information. Finally, the written consent letter obtained from the subjects and the questionnaires were given to the patients and nurses participating in the research with comprehensive explanations about how to complete the questionnaire.

Statistical analysis

In order to analyze the data, the SPSS software (version 22.0) was performed at two levels of descriptive and inferential statistics. At the level of descriptive statistics, statistical characteristics such as frequency, percentage, mean, and standard deviation were used, and at the inferential level, chi-square statistical samples were applied.

Results

According to the obtained results, 80 nurses were working in the hemodialysis departments and 145 patients undergoing hemodialysis treatment (225 participants in total) which were included in the current study. The male gender percentage was significantly higher than females in patients. However, the female nurses were significantly more than males. The average age of the patients and nurses were 43.7 and 35.9, respectively. The rate of married subjects was significantly higher compared to the single subjects in both groups. The educational level of most of the patients and nurses was below diploma (56.8%) and bachelor (68.15%), respectively (Table 1).

Frequency distribution in response to the questions of study

The statistical analysis showed that the mean and standard deviation of compliance with the ethical principles of nursing from the nurses' perspective in the hemodialysis department were 5.32 and 0.25. However, from the perspective of patients, the values were 6.04 and 0.31 (Table 2). The mean and standard deviation of subgroups of compliance with nursing ethical principles were also shown in table 2. It should be noted that the number of cases of each subgroup is different in patients and nurses. Therefore, for the purpose of statistical comparison,

Table 1. Demographic information of the subjects

Demographic properties		Patients (%)	Nurses (%)	p-value
Gender	Male	62.7	40.6*	0.041
	Female	37.3	59.4	0.056
Age (year)	Less than 20	9.2	0***	0.001
	20-35	19.6	24.8**	0.01
	35-50	38.2	54.7*	0.048
	More than 50	33	20.5*	0.049
Education level	Diploma	56.8	0***	0.001
	Bachelor	31.3	68.15**	0.02
	Master and higher	11.9	31.85*	0.03
Marital status	Married	71.3	76.12	0.068
	Single	28.7	23.88	0.054

Table 2. Average satisfaction in the nurse and patient group. t-test statistical test. Data are Mean±SEM. *p≤0.05 compared to the patient group

Nursing Ethical Principles Consideration items		Patients		Nurses		p-value
		Mean	SD	Mean	SD	
1	Attention to the patients' demands	5.41	0.15	5.2*	0.12	0.032
2	Respect the human rights	4.63	0.11	5.1**	0.14	0.02
3	Introducing yourself to the patient	4.12	0.17	4.2*	0.1	0.041
4	Realizing the patients' concerns	5.12	0.13	5.9	0.11	0.05
5	Providing information before procedure	4.4	0.1	4.2	0.18	0.063
6	Post-procedure care training	5.1	0.12	5.9*	0.1	0.041
7	Cooperation beyond the arranged time	5.16	0.1	5.22	0.14	0.062
8	Safety consideration	4.71	0.12	4.99*	0.1	0.035
9	Patient complaint report	5.26	0.1	5.42	0.14	0.071
10	Adherence to the ethical and legal principles	4.51	0.13	5.29*	0.1	0.01
11	Respect the patients' privacy	5.26	0.2	5.32	0.14	0.072
12	CV-line care training	4.7	0.16	5.82*	0.12	0.044

the scores obtained from each subgroup were divided by the scores of the related items by considering the total score of nursing ethical principles. Statistically significant difference between the average scores regarding the attitude towards paying attention to the patients' requests, respect for individual rights, self-introduction to the patient, postoperative care training, safety considerations, patient complaint reporting, compliance with ethical and legal principles, CV

care training line and other care behaviors were demonstrated between the two groups.

Discussion

The current study was aimed at evaluating the nursing ethical principles' consideration from the nurse and patient perspective in the dialysis departments of Ahvaz educational hospitals. The obtained results of this study documented that in patients' point of

view, the respect and professional skills of nurses are significantly greater than other different aspects of nursing care. These findings are in line with other studies by Raper *et al* (20), Hajinezhad *et al* (21), Wolf *et al* (22) and Zamanzadeh *et al* (23). However, another study by Wolf *et al* (24) using a self-designed questionnaire in patients undergoing invasive cardiac procedures, showed that assurance of nurses' presence is significantly higher than other care plan items. The difference may be due to the greater sample size used in the mentioned research. However, the results of the present study demonstrated no significant difference between the perspective of the patients and nurses regarding the respect and professional skills of nurses, and nurses also valued these items in their care plan. Since the patients undergoing hemodialysis treatment were continually exposed to various stresses such as repeated perforation of the skin at the vascular access site, complications during hemodialysis and electrolyte disturbances caused additional disorders (25). According to the study by Hurton *et al*, conducted on patients with chronic renal failure undergoing hemodialysis in 2006, the patient faced serious health treated problem such as low-quality dialysis, failure of the fistula site, air embolism, and even death (26). On the other hand, performing professional responsibilities such as choosing the appropriate strainer for each patient in each dialysis session, proper setting of the device and appropriate care through vascular access are the responsibility of the dialysis nurses' requirements which should be considered as a part of nursing ethical principles (27). Moreover, the higher score of care behaviors by the nurses indicated that in the current situation with high workload and the non-standard number of nurses compared to the number of patients, it seems that the nurses only focus on the main tasks and ignore the tasks that are not in duties instruction. However, relying more on this dimension of care during education and continuous training programs that are provided for nurses in the hemodialysis department during the service, will strengthen and improve nurses' caring behaviors which will be effective in this regard. In this context, the study by Van Wilder *et al* reported that more emphasis on nursing care ethics during academic education and continuous education programs provided for nurses in the hemodialysis

departments, could improve these items in nurses' caring behaviors (28).

However, the results of the present study demonstrated that in patients and nurses' perspective, providing explanations prior to the procedure was significantly less considered than other items of care. This result is not consistent with the findings of Wolf *et al* in 2016 (29) and Essen *et al* in 2013 (30). It seems that the cultural difference, time trouble, fatigue and emotional pressure could lead to these negative attitudes to lack of proper communication with patients. These results are despite the fact that the nurse-patient relationship is the basis for achieving excellence in nursing care and paying attention to the psychological-social aspects of care, especially establishing proper communication with patients, which leads to patient satisfaction more than paying attention to the technical aspects of care.

In general, nurses recorded the significant higher scores to all care behaviors items than patients. However, in some other studies, higher scores were recorded by patients. In some countries, the work-related stress of nurses is obvious as work overload, lack of formal rewards, and work-life interference. It causes physical and psychological pressure on the nurses, leading to lower health service provided to the patients. The differences in government policy is in regard to health care system in different societies, such as the standard number of nurses compared to the patient and the adequate facilities and advanced equipment of the wards, which causes nurses to have enough time to focus more on the patients' physical and psychological conditions, leading to variable treatment outcomes in hospitals. The current study has some limitations including the scope of sampling, targeting only hemodialysis centers located in Ahvaz hospitals. Moreover, since there is a variation in the hospital environment where dialysis nurses work, perhaps reflection of the obtained data to other hospitals or departments is not valid.

Conclusion

According to the current study, the nurses of the hemodialysis wards should pay special attention to the emotional and moral demands of the patients, such as respect, communication and positive attitude, explanation of the procedure, and post-dialysis

training. Consideration of the nursing ethical principles is necessary to improve patients' health condition in critical care wards. It is essential for researchers to explore various factors influencing adherence to nursing professional codes of ethics through qualitative research methodologies. Additional investigations are required to develop and standardize assessment tools for evaluating nurses' professional ethical practices in alignment with the ethical codes applicable to nurses in Iran. Furthermore, nursing researchers should focus on identifying both the facilitators and barriers to the observance of ethical codes among nursing students and practicing nurses, with the aim of promoting the effective implementation of nursing professional ethics within the clinical settings.

Ethical Approval

The current study was performed based on Helsinki declarations and was approved by the Ethics Committee of Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran with Ethical Code: [IR.AJUMS.MEDICINE.REC.1401.038]. The local institutional ethics committee of study center oversaw the proceedings and documentation.

Consent to participate

The decision to participate in this study was completely voluntary for all patients. At the end of the study, all participants had free access to their laboratory and clinical results

Consent for publication

All individuals involved in this clinical trial are aware of the planned publication and had given their consent at study initiation.

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Conflict of Interest

There was no conflict of interest in this manuscript.

References

1. Mosadeghrad AM. Factors influencing healthcare service quality. *Int J Health Policy Manag* 2014 Jul;3(2):77-89.
2. Cheraghi R, Valizadeh L, Zamanzadeh V, Hassankhani H, Jafarzadeh A. Clarification of ethical principle of the beneficence in nursing care: an integrative review. *BMC Nurs* 2023 Dec;22(1):1-9.
3. Molina-Mula J, Gallo-Estrada J. Impact of nurse-patient relationship on quality of care and patient autonomy in decision-making. *Int J Environ Res Public Health* 2020 Feb;17(3):835.
4. Poorchangizi B, Borhani F, Abbaszadeh A, Mirzaee M, Farokhzadian J. The importance of professional values from nursing students' perspective. *BMC Nurs* 2019 Dec;18:1-7.
5. Chen TK, Knicely DH, Grams ME. Chronic kidney disease diagnosis and management: a review. *JAMA* 2019 Oct 1;322(13):1294-304.
6. Rad EH, Mostafavi H, Delavari S, Mostafavi S. Health-related quality of life in patients on hemodialysis and peritoneal dialysis: a meta-analysis of Iranian studies. *Iran J Kidney Dis* 2015 Sep 1;9(5):386.
7. Nobahar M, Tamadon MR. Barriers to and facilitators of care for hemodialysis patients; a qualitative study. *J Renal Inj Prev* 2016;5(1):39. <https://pubmed.ncbi.nlm.nih.gov/27069967/>
8. Flaubert JL, Le Menestrel S, Williams DR, Wakefield MK, National Academies of Sciences, Engineering,

and Medicine. Future of nursing 2020-2030: charting a path to achieve health equity. 2021. National Academies Press (US); supporting the health and professional well-being of nurses.

9. Byrne AL, Baldwin A, Harvey C. Whose centre is it anyway? Defining person-centred care in nursing: an integrative review. *PLoS One* 2020 Mar 10;15(3):e0229923.

10. Moghadasian S, Hagh MH, Hokmabadi LA. Lifestyle of hemodialysis patients in comparison with outpatients. *J Caring Sci* 2012 Jun;1(2):101.

11. Larson PJ, Ferketich SL, Wleczorek RR, Molzahn AE. Patients' satisfaction with nurses' caring during hospitalization. *West J Nurs Res* 1993 Dec;15(6):690-707.

12. Babapour AR, Gahassab-Mozaffari N, Fathnezhad-Kazemi A. Nurses' job stress and its impact on quality of life and caring behaviors: a cross-sectional study. *BMC Nurs* 2022 Dec;21(1):1-0.

13. Nursing and Midwifery Council. Standards for competence for registered nurses.

14. Jiménez-Herrera MF, Llauradó-Serra M, Acebedo-Urdiales S, Bazo-Hernández L, Font-Jiménez I, Axelsson C. Emotions and feelings in critical and emergency caring situations: A qualitative study. *BMC Nurs* 2020 Dec;19:1-0.

15. van Belle E, Giesen J, Conroy T, van Mierlo M, Vermeulen H, Huisman-de Waal G, et al. Exploring person-centred fundamental nursing care in hospital wards: a multi-site ethnography. *J Clin Nurs* 2020 Jun;29(11-12):1933-44.

16. Oermann MH, De Gagne JC, NPD-BC CN, Phillips BC. Teaching in nursing and role of the educator: the complete guide to best practice in teaching, evaluation, and curriculum development. 1st ed. Springer Publishing Company; 2017. 512 p.

17. Rodríguez-Pérez M, Mena-Navarro F, Domínguez-Pichardo A, Teresa-Morales C. Current social perception of and value attached to nursing professionals' competences: an integrative review. *Int J Environ Res Public Health* 2022 Feb 5;19(3):1817.

18. Demur DR, Primal D, Sari YP. Emotional intelligence stimulates nurses' decent caring behavior in nursing practice in Bukittinggi City, Indonesia. *ABCS Health Sci* 2022 Jun 15;47:e022213-. <https://doi.org/10.7322/abcshs.2020098.1550>

19. Asgari MR, Mohammadi E, Fallahi Khoshknab M, Tamadon MR. [Hemodialysis patients' perception from nurses' role in their adjustment with hemodialysis: a qualitative study.] *Koomesh* 2011 Jan 19;385-97. Persian. <https://brieflands.com/articles/koomesh-152471>

20. Raper J, Davis BA, Scott L. Patient satisfaction with emergency department triage nursing care: a multicenter study. *J Nurs Care Qual* 1999 Aug 1;13(6):11-24.

21. Hajinezhad MS, Rafi F, Haghani H. [Comparison of patients and nurse views on nurse caring behaviors]. *Hayat* 2011;4;36-45. Persian.

22. Wolf ZR. The caring concept and nurse identified caring behaviors. *Top Clin Nurs* 1986;8(2):84-93.

23. Zamanzadeh V, Azimzadeh R, Rahmani A, Valizadeh L. Oncology patients' and professional nurses' perceptions of important nurse caring behaviors. *BMC Nurs* 2010 Dec;9(1):1-9.

24. Wolf ZR, Miller PA, Devine M. Relationship between nurse caring and patient satisfaction in patients undergoing invasive cardiac procedures. *MedSurg Nurs* 2003 Dec 1;12(6):391-7.

25. Pinheiro RL, de Macedo BM, de Carvalho Lira AL. Complications in patients with chronic renal failure undergoing hemodialysis. *Cogitare Enferm* 2017;22(4):e52907. <https://doi.org/10.5380/ce.v22i4.52907>

26. Hurton S, Embil JM, Reda A, Smallwood S, Wall C, Thomson L, et al. Upper extremity complications in patients with chronic renal failure receiving haemodialysis. *J Ren Care* 2010 Dec;36(4):203-11.

27. Adib-Hajbagheri M, Molavizadeh N, Alavi NM, Abadi MH. Factors associated with complications of vascular access site in hemodialysis patients in Isfahan Aliasghar hospital. *Iran J Nurs Midwifery Res* 2014 Mar;19(2):208.
28. Van Wilder L, Pype P, Mertens F, Rammant E, Clays E, Devleesschauwer B, et al. Living with a chronic disease: insights from patients with a low socioeconomic status. *BMC Fam Pract* 2021 Dec;22:1-1.
29. Wolf LA, Perhats C, Delao AM, Moon MD, Clark PR, Zavotsky KE. "It's a burden you carry": describing moral distress in emergency nursing. *J Emerg Nurs* 2016 Jan 1;42(1):37-46.
30. von Essen L, Sjöden PO. The importance of nurse caring behaviors as perceived by Swedish hospital patients and nursing staff. *Int J Nurs Stud* 2003 Jul 1;40(5):487-97.