MedCrave
Step into the World of Research

Nursing and Care Open Access Journal

Research article

Open Access

CrossMark

Video assisted teaching program for the promotion of care of patients undergoing hemodialysis among caregiver

Abstract

Care of the patient on hemodialysis is a complex task, the knowledge of caring the patients undergoing hemodialysis is essential task of health personnel, however if the care provider that is caregiver of the family imparted with knowledge of care of hemodialysis, can bring effective change in knowledge level. Video assisted teaching helps in better understanding of concept, hence the present study is designed. The aim of the study was to assess the effectiveness of video assisted teaching program on knowledge regarding care of patients undergoing hemodialysis among caregiver. Fifty caregivers taking care of patients on hemodialysis were selected from selected hospital Bangalore. Using purposive sampling technique. A structured questionnaire designed for to collect the data and data was analyzed using SPSS 18.0**.** The present study found that the pretest knowledge mean score was lower than posttest mean knowledge mean score. The study found that the video assisted teaching program was effective at 110.00 in bringing improvement in knowledge score of caregivers on care of patients on hemodialysis. The study concluded that the video assisted teaching program was effective in improving the knowledge of caregivers regarding care of patients undergoing hemodialysis.

Keywords: Knowledge, video assisted teaching program, care of patients on hemodialysis, caregivers

Volume 11 Issue 2 - 2025

Dr.VG Veeresh
Department of Adult Health Nursing, Karnataka Medical College& Research Institute (KIMS), India

Correspondence: Dr.VG Veeresh, Associate Professor, Faculty of Nursing, Department of Adult Health Nursing, College of Nursing, Karnataka Medical College & Research Institute (Former KIMS), Karnataka, India

Received: April 28, 2025 | **Published:** June 19, 2025

Introduction

In the developed and developing countries, with advance in life expectancy and changes in life style, chronic diseases such as diabetes mellitus, cardiac diseases and End Stage Renal Diseases are increasing steadily. The most common and serious health problems are Acute and Chronic Renal Failure.[1]

According to National Kidney Foundation, Chronic Kidney Disease includes conditions that impair the kidneys and diminish their ability to keep healthy. Chronic Renal Failure is a progressive irreversible deterioration in renal function in which the body's power to maintain metabolic, fluid and electrolyte balance fails, resulting in uremia which contribute the patient to depend up on hemodialysis for the maintenance of the internal milieu and to avoid uremia. In early stage of renal damage, symptoms may be reduced through hemodialysis, control of fluid intake and regulation of diet, and use of medication, as renal function worsen, these treatments become insufficient.[1]

Hemodialysis can be an outpatient or inpatient therapy. Routine hemodialysis is conducted in a dialysis outpatient facility, either a purpose-built room in a hospital or a dedicated, stand-alone clinic. Less frequently hemodialysis is done at home. Dialysis treatments in a clinic are initiated and managed by specialized staff made up of nurses and technicians; dialysis treatments at home can be self-initiated and managed or done jointly with the assistance of a trained helper who is usually a family member.[2]

Caregiver is a word refer to unpaid relatives or friends of disabled individual who help that individual with his or her activities of daily living. Giving home care to a dialysis patient also needs a plenty of learning. Almost 70% of patients and 80% of caregivers are extremely interested in learning more about how kidney disease affects the patient's daily activities. Caregiver's needs are often ignored and under-prioritized in the medical treatment of Chronic Kidney Disease. Informal caregivers can experience stress from more responsibilities of handling the patients' medical treatments, dietary requirements, hospital appointments and psychosocial issues.[3]

Caregivers play a significant role in the support of patients undergoing hemodialysis, since a large number of them have a poor physical function and cognitive impairment and are unable to look after themselves. Caregivers are involved in patients' care and assistance during hemodialysis in order to help them adapt and effectively manage their treatment. They help patients with their daily activities, household tasks, and personal care, such as bathing and dressing, while they undertake responsibility for technical health procedures in dialysis.[4]

They also manage their money or communicate with professional caregivers when appropriate. Additionally, their role involves management of medical treatment and symptoms caused by hemodialysis, transportation to dialysis unit and other medical appointments, management of diet, and helping in personal hygiene. A large proportion of family members take full responsibility for making decisions about the dialysis method the patients will follow, taking into consideration the opportunity to maintain their lifestyle and the possible risk of the therapy. They also take into account their priorities and their capability to manage home hemodialysis. However, sometimes-family caregivers have to take difficult decisions, such as interruption of dialysis therapy or referring their patients to hospice services.[5]

The present study investigate caregivers experiences among the caregivers of the patients undergoing hemodialysis.[6] The investigator decided to assess the effectiveness of video assisted teaching program on knowledge regarding care of patients undergoing hemodialysis among care givers in selected hospitals. This will help to improve the knowledge of caregivers towards sound care for the dialysis patients.

Methodology

The present study is quantitative evaluator approach, one group pretest posttest design for 50 caregivers selected by purposive sampling technique pretest conducted to assess the knowledge regarding caregivers on care of patients undergoing hemodialysis a structured knowledge questionnaire on meaning of hemodialysis, specific care of hemodialysis, dietary and medical management, prevention of complication and follow up care, following the pretest video assisted teaching program to improvise the knowledge of caregivers on care of patients undergoing hemodialysis following this posttest conducted to assess the effectiveness of video assisted teaching program. The collected data was analyzed using SPSS 18.0 version for statistical interpretations.

Results

The demographic finding related to age, religion, education qualification, and family income, type of family, occupation, residence, gender and previous source of information (Table 1).

Table 1 Describes the findings related to the demographic characteristics of caregivers

S. No	Variables		Caregivers	Percentage
1	Age	31 to 40 years	21	42
		41 to 50 years	17	34
		More than 51 years	12	24
2	Religion	Hindu	32	64
		Muslim	13	26
		Christian	5	10
3	Education Qualification	Primary education	24	48
		Secondary education	14	28
		Pre-university education	5	10
		Graduation and above	7	14
4	Family income	Less than 10,000	27	54
		10,001- 20,000	15	30
		20001- 40,000	3	6
		More than 40,001	5	10
5	Type of family	Joint family	20	40
		Nuclear family	30	60
6	Occupation	Employed	10	20
		House hold work	30	60
		Self-employee	10	20
7	Residence	Urban	42	84
		Rural	8	16
8	Gender	Male	36	72
		Female	14	28
9	Previous source of information	Print media	5	10
		Electronic media	30	60
		Health professional	10	20
		Friends/family members	5	10

The distribution various aspects in study, the overall knowledge score for maximum 30, ranged at 3 with mean 6.04 and standard deviation of 0.92, mean% 20.13% (Table 2).

Table 2 Findings related to the distribution of pretest aspect wise knowledge scores

S. No	Components	Maximum score	Range	Mean	Median	Standard deviation	Mean%
1	Meaning of Hemodialysis	3	1	1.16	1.00	0.37	**38.66**
2	Specific Care of hemodialysis	9	1	2.24	2.00	0.43	**24.88**
3	Dietary & Management of hemodialysis	9	1	1.32	1.00	0.47	**14.66**
4	Prevention of complication and follow up care	9	1	1.32	1.00	0.47	**14.66**
Over all knowledge scores		**30**	**3**	**6.04**	**6.00**	**0.92**	**20.13**

The distribution various aspects in study, the overall knowledge score for maximum 30, ranged at 3 with mean 24.90 and standard deviation of 0.73, mean% 83.00% (Table 3).

Table 3 Findings related to the distribution of posttest aspect wise knowledge scores

S. no	components	maximum score	range	mean	median	standard deviation	mean%
1	Meaning of Hemodialysis	3	1	2.36	2	0.48	**78.66**
2	Specific Care of hemodialysis	9	1	7.48	7	0.5	**83.11**
3	Dietary & Management of hemodialysis	9	1	7.7	8	0.46	**85.55**
4	Prevention of complication and follow up care	9	1	7.36	7	0.48	**81.77**
Over all knowledge scores		**30**	**3**	**24.9**	**25**	**0.73**	**83**

The findings related to video assisted teaching program had significantly enhanced knowledge score of caregivers on care of patients undergoing hemodialysis and the Mean% knowledge enhancement for Meaning of hemodialysis; Specific care of hemodialysis; Dietary and management of hemodialysis; Prevention of complication and follow up care and overall mean% enhancement are 40.00; 58.23; 70.89; 67.11and 62.13 respectively (Table 4).

Table 4 Findings related to the aspect wise comparison of pretest and posttest knowledge scores

Sl No	Aspect wise analysis	pretest				posttest			mean% of knowledge enhancement
		max score	mean	standard deviation	mean %	mean	standard deviation	mean %	
1	Meaning of Hemodialysis	3	1.16	0.37	38.66	2.36	0.48	78.66	**40**
2	Specific Care of hemodialysis	9	2.24	0.43	24.88	7.48	0.5	83.11	**58.23**
3	Dietary & Management of hemodialysis	9	1.32	0.47	14.66	7.7	0.46	85.55	**70.89**
4	Prevention of complication and follow up care	9	1.32	0.47	14.66	7.36	0.48	81.77	**67.11**
Total		**30**	**6.04**	**0.92**	**20.13**	**24.9**	**0.73**	**83**	**62.13**

The findings of video assisted teaching program was significant for Meaning of hemodialysis t value 12.66 at df = 49 and p value ≤0.001, for Specific care of hemodialysis t value 59.31 at df = 49 and p value ≤0.001, for Dietary and management of hemodialysis t value 71.00 at df = 49 and p value ≤0.001 for Prevention of complication and follow up care t value 66.98 at df = 49 and p value ≤0.001 respectively. The overall knowledge score was significant at t value 110.00 at df = 49 and p value ≤0.001 (Table 5).

Table 5 Findings related aspect wise analysis of effectiveness of video assisted teaching program

S. No	Aspects	pretest		posttest		t value	df	p value	interference
		mean	standard deviation	mean	standard deviation				
1	Meaning of Hemodialysis	1.16	0.37	2.36	0.48	**12.66**	49	**≤0.001**	**significant**
2	Specific Care of hemodialysis	2.24	0.43	7.48	0.5	**59.31**	49	**≤0.001**	**significant**
3	Dietary & Management of hemodialysis	1.32	0.47	7.7	0.46	**71**	49	**≤0.001**	**significant**
4	Prevention of complication and follow up care	1.32	0.47	7.36	0.48	**66.98**	49	**≤0.001**	**significant**
Overall knowledge scores		**6.04**	**0.92**	**24.9**	**0.73**	**110**	**49**	**≤0.001**	**significant**

Discussion

Demographic characteristics of the caregivers taking care of patients undergoing hemodialysis

1. The findings of the study shows that, 21(42.00%) caregivers were in the age group of 31-40years, 17(34.00%) caregivers were in age group of 41-50years, 12 (24.00%) caregivers were more than 51years of age.
2. Out of 50 caregivers, 32 (64.00%) were Hindus, 13 (26.00%) were Muslims and five (10.00%) caregivers were Christian.
3. Out of 50 caregivers, 24(48.00%) of caregivers were having primary education, 14(28.00%) caregivers had secondary education, five (10.00%) had pre-university education and seven (14.00%) were graduate and above education.
4. In the present study, 27 (54.00%) had monthly income less than 10,000/- 15(30.00%) caregivers had monthly income between 10,001/- to 20,000/- three (6.00%) caregivers monthly income was between 20,001/- to 40,000/- and five (10.00%) caregivers monthly income was more than 40,001/-
5. Out of 50 caregivers, 20 (40.00%) caregivers were living in joint family and 30 (60.00%) caregivers were living as nuclear family.

Citation: Veeresh VG. Video assisted teaching program for the promotion of care of patients undergoing hemodialysis among caregiver. *Nurse Care Open Acces J.* 2025;11(2):51–54. DOI: 10.15406/ncoaj.2025.11.00320

6. Out of 50 caregivers, 10 (20.00%) of caregivers were employed, 30 (60.00%) caregivers were doing household works, 10 (20.00%) caregivers were self-employed.
7. Out of 50 caregivers, 42 (84.00%) caregivers were having residence in urban area, eight (16.00%) caregivers were living in rural area.
8. Out of 50 caregivers, 36 (72.00%) caregivers were having males, 14 (28.00%) caregivers were females.
9. Out of 50 caregivers, 5 (10.00%) caregivers has source of information as print media, 30 (60.00%) caregivers has source of information as electronic media, 10 (20.00%) caregivers has source of information as health professional, 5 (10.00%) caregivers has source of information from friends and family members.

Knowledge of caregivers on care of patients undergoing hemodialysis

The present study showed that the mean pretest knowledge scores was 6.04 compared with the mean posttest knowledge scores 24.90 and the Standard Deviation was 0.92 for pre-test and 0.73 for posttest respectively, these findings are similar to the study.[7-11]

Effectiveness of video assisted teaching program on knowledge regarding care of patient undergoing hemodialysis

The present study found significantly effective and the video assisted teaching program was effective at t value 110.00 for 49 degrees of freedom at p value ≤ 0.001 for pretest mean ± standard deviation 6.04±0.92 and posttest mean ± standard deviation 24.90 ± 0.73 respectively, these findings were similar to the study.[12-16]

Conclusion

The present study found that the video assisted teaching program on knowledge of caregivers on caring patients on hemodialysis was effective in imparting knowledge to caregivers and recommended that similar study can be done using control group and large sample for generalization.

Acknowledgement

None.

Conflicts of interest

None.

References

1. Agarwal L. *Modern Educational Research*. 1st ed. Dominant Publishers and Distributors; 2006.
2. WebMD. Kidney dialysis. Accessed August 1, 2019.
3. Navneet, Sharma S, Kaur P. An exploratory study to assess the knowledge regarding post dialysis home care among caregivers of hemodialysis patients attending selected hospital of Mohali. *Asian J Nurs Educ Res.* 2014;4(3):353–355.
4. McDonald J, McKinlay E, Keeling S. How family carers engage with technical health procedures in the home: A grounded theory study. *BMJ Open.* 2015;5(7):e007761.
5. Singh P, Germain M, Cohen L, et al. The elderly patient on dialysis: Geriatric considerations. *Nephrol Dial Transplant.* 2016;14(1):51–52.
6. National Center for Biotechnology Information. Accessed August 1, 2019.
7. Curtin RB, Mapes D. Self-management, knowledge, and functioning and well-being of patients on haemodialysis. *Nephrol Nurs J.* 2004;31(4):378–386.
8. Kaplan B, Mason NA, Shimp LA, et al. Chronic haemodialysis patients: Part I: Characterization and drug-related problems. *Ann Pharmacother.* 1994;28(3):316–319.
9. Min HS, Lee EJ. A study of the relationship between compliance with therapeutic regimens and physiological parameters of hemodialysis patients. *Taehan Kanho Hakhoe Chi.* 2006;36(1):64–73.
10. Moreira LB. Medication noncompliance in chronic kidney disease. *J Nephrol.* 2008;21(3):354–362.
11. Thomas N. Development of a self-care management package for people with diabetes at risk of chronic kidney disease. *J Nephrol.* 2008;34(3):151–158.
12. Steffenino G, Viada E, Marengo B, et al. Effectiveness of video-based patient information before percutaneous cardiac interventions. *J Cardiovasc Med.* 2007;8(5):348–353.
13. Albert NM, Buchsbaum R, Li J. Randomized study of the effect of video education on heart failure healthcare utilization, symptoms, and self-care behaviours. *Patient Educ Couns.* 2007;69(3):129–139.
14. Philippe F, Meney M, Larrezet M, et al. Effects of video information on anxiety among patients undergoing angiography. *Arch Mal Coeur Vaiss.* 2006;99(2):95.
15. Chung YC. Effectiveness of multimedia interactive nursing intervention on decision making, uncertainty and quality of life of patients with end-stage renal disease. *J Clin Nurs.* 2005;21(3-4):112.
16. O'Donnell L, San Doval A, Duran R, et al. The effectiveness of video-based interventions in promoting condom acquisition among STD clinic patients. *Sex Transm Dis.* 1995;22(2):97–103.