A STUDY TO EVALUATE THE EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME ON KNOWLEDGE AND ATTITUDE REGARDING LIFESTYLE MODIFICATIONS AMONG PATIENTS UNDERGOING DIALYSIS IN SELECTED HOSPITAL AT SALEM, TAMILNADU

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ABSTRACT

Statement of the problem

A Study Evaluate the effectiveness of structured teaching programme on knowledge and attitude regarding lifestyle modifications among patients undergoing dialysis in selected hospital at salem, Tamilnadu.

Objectives

➢ *To assess the level of knowledge and attitude regarding lifestyle modifications among patients undergoing dialysis.*
➢ *To administer a structured teaching programme on lifestyle modifications among patients undergoing dialysis.*
➢ *To assess the effectiveness of structured teaching programme on the level of knowledge and verbal responses structured interview schedule for attitude regarding lifestyle modifications among patients undergoing dialysis.*
➢ *To find out the correlation between knowledge and attitude regarding lifestyle modifications among patients undergoing dialysis.*
➢ *To find out the association between knowledge and attitude regarding lifestyle modifications among patients undergoing dialysis with selected demographic variables.*

Methodology

One group pretest and posttest experimental research design. 80 samples were selected using non-probability convenient sampling. A structured Knowledge questionnaire was used to assess the knowledge and modified Likert Scale was used to assess the attitude. Descriptive and inferential statistics were used to analyze the data.

Conclusion

The study findings revealed that the structured teaching programme regarding lifestyle modifications improved the knowledge and thereby modified the favorable attitude of chronic kidney disease patients. The obtained 't' value for comparison of knowledge score at p<0.05 was 16.87and the obtained 't' value for comparison of attitude scores at p<0.05 level was 18.87. There was a positive correlation found between the knowledge and attitude scores in the pre-and post test. The study also revealed that that there was an association between the pretest level of knowledge scores and the education, but, other variables like age, sex, religion, occupation. Income, marital status, type of family, dietary pattern, duration of disease, personal habits, associated illness were not associated with the pretest level of knowledge scores. Further, there was no association found between pretest level of attitude scores with the selected demographic variables.

KEY WORDS: *Effectiveness, Knowledge, Attitude, Life style modification, Dialysis Patients.*

I.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 problem**s** are Acute and Chronic Renal Failure (**Reinhard**).

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 (**S.K. Agarwal et al., 2009**).

Dialysis is required for treatment when patient sustain enough kidney damage and moves into the 5th or final stage of Chronic Kidney Disease, also referred as Chronic Renal Failure or End Stage Renal Disease (**smeltzer et al., 2008**). Hemodialysis is the treatment procedure that is done to assist the failing kidney (**Lydia et al., 2016**).

In case of renal insufficiency hemodialysis is done to remove waste and toxic products from the blood in which crystalline substances will pass through a semipermeable membrane. In 1884 Thomas Graham had first developed Hemodialysis and father of dialysis is considered as Dr William Koff (**Lydia Antony et al., 2016**).

National kidney foundation (2015) stated that chronic kidney disease is also known as a chronic renal disease where the progressive loss in renal functions over a period of months or years. The symptoms of worsening kidney function are non-specific and might include feeling generally unwell and experiencing a reduced appetite. People with diabetes, high blood pressure are having more chance of developing chronic kidney disease and its complications.

The incidence of chronic kidney disease and its consequences are increasing throughout western and developing world. The world foundation for renal care estimated that by the year 2020, over 1 million people will be required to provide care for approximately 1,4million people receiving dialysis, and approximate 1.2 million are with functioning transplants. Chronic kidney disease is a gradual and progressive loss of the ability of the kidneys to function normally.

Chandrasekaran (2014) stated that the prevalence of chronic kidney disease in southern India was 8.6/1000 population. Only about 10% or less receives renal replacement therapy. Hence it is important that most of them are not aware of the proper management of chronic kidney disease, to prevent kidney disease of the entire population is important,

Adeera Levin (2017) explained the importance of lifestyle management in care for patients with impaired kidney function, common risk factors of chronic kidney disease includes cardiovascular disease and diabetes, lifestyle modification directed at smoking, obesity, alcohol consumption, exercise, and diet are important, Long-term restriction of protein intake delays the progression of chronic kidney disease. Thus, a protein-controlled diet is recommended. The benefit of salt reduction is pertaining to control of hypertension.

Linda (2013) stated that kidney insufficiency and early kidney disease are treated based on symptoms with a restricted diet and fluid intake, medication and careful monitoring for the onset of serious problems that initiation of dialysis. In later available may return the patient to a nearly normal state of health.

Robert Thomas (2014) explained that progression of chronic kidney disease is associated with a number of serious complications, including increased incidence of cardiovascular disease, hyperlipidemia, anemia and metabolic bone disease. Chronic kidney disease patient should be assessed for the presence of these complications and receive optimal treatment to reduce their morbidity and mortality

Lewis (2013) described that chronic kidney patient needs to make changes in their diet, including limiting fluids, eating a low-protein diet as recommended, restricting salt, potassium, phosphorous, and other electrolytes. The purpose of this dietary pattern is to maintain a balance of electrolytes, minerals, and fluid in patients.

Ann, et.al, (2012) said that chronic kidney disease of an individual is maintained by diet, exercise and day to day activities. As a result of technological development, the lifestyle, obesity, smoking, poor diet, and lack of exercise for people in the modern country has changed a lot. There is a remarkable change in food habits as well as physical activities. So the kidney disease can be controlled by various measures like adopting a healthy diet, medication, exercises, engaged in relaxation technique like yoga and meditation.

NEED FOR THE STUDY

Buke (2016) stated that modification of lifestyle habits like smoking cessation, exercise, moderate alcohol consumption, and weight loss in obese people will slow the progression of chronic kidney disease. Diet is considered 0ne of the treatment of chronic kidney disease. Dietary advice includes information about energy, protein, sodium phosphate, potassium, and fluid. The overall aim is to prevent malnutrition, hyperkalemia, hyperphosphatemia, and obesity and to aid in the treatment of hypertension and alleviate the uremic symptom, a balanced healthy diet to meet individual nutritional requirements.

Prabahar (2015) stated that chronic kidney disease is a worldwide health problem. Diseases of the kidney and urinary tract contribute to the global burden with approximately 850,000 deaths every year and 1.15,10,100 disability-adjusted life years. Chronic kidney disease is the 12th leading causes of death and 17th causes of disability. Patients with chronic kidney disease are at high risk for cardiovascular disease and cerebrovascular disease (WHO 2012)

Suresh C. D (2015) stated that chronic kidney disease is a global threat to health in developing countries. In India, 90% of patients are not able to afford the cost. Over 1 million people worldwide are alive on dialysis or with a functioning graft. The incidence of chronic kidney disease as doubled in the last 15 years.

Bracken, et.al (2014) stated that the kidney is one of the major vital organs. The proper function of the urinary system is essential for the normal functioning of the body. Diseases of the kidneys are currently the leading cause of the death throughout the country. Chronic kidney disease is a progressive, irreversible, deterioration in the renal function in which the bodies ability to maintain metabolic and fluid-electrolyte balance fails, resulting in azotemia or uremia. In the early stage of renal impairment, symptoms may be minimized through hemodialysis and regulation of diet, control of fluid intake, and

use of medication, as renal function worsens these treatments become insufficient.

Sanmugam (2014) started that the average global prevalence of treated end-stage kidney disease, dialysis, and transplant patient were 280,215 and 65 patients per million respectively. In India, the average prevalence rate for treating end-stage kidney diseases and transplant patients were 70.60 and 10 patients were per million, respectively. This number is increasing globally at a rate of 7% every years.

Teng. H.L (2013) conducted a study on lifestyle modifications regarding lifestyle factors, specifically diet and exercise behaviors, which can delay the progression of chronic kidney disease. The study revealed that the effects of a targeted lifestyle modification program are based on the readiness to change health-promoting lifestyle behaviors, renal protection knowledge, and physical indicators of a patient with early chronic kidney disease.

George (2012) reported that the prevalence of the end-stage renal disease has increased worldwide, with the common causes which are hypertension and diabetes and associated with large increases in cardiovascular risk. Most of the deaths from cardiovascular diseases are caused by the chronic kidney disease. So the early identification and reduction of chronic kidney diseases have become a vital public health priority.

Therefore the above fact and studies created an insight in the investigator`s mind. By improving the knowledge regarding lifestyle modification on chronic kidney disease, the incidence of complication could be reduced. It may enhance the changes in the health care delivery system. The overall aim of the present study is to assess the effectiveness of structured teaching programmed on knowledge and attitude regarding lifestyle modification among patients with undergoes dialysis.

STATEMENT OF THE PROBLEM
A Study Evaluate the effectiveness of structured teaching programme on knowledge and attitude regarding lifestyle modifications among patients undergoing dialysis in selected hospital at salem, Tamilnadu.

HYPOTHESIS:
H1: There will be a significant difference between pretest and post-test level of knowledge and attitude scores regarding lifestyle modifications among patients undergoing dialysis.
H2: There will be a significant correlation between the pre-test level of knowledge and attitude scores regarding lifestyle modifications among patients undergoing dialysis.
H3: There will be a significant correlation between the post-test level of knowledge and attitude scores regarding lifestyle modifications among patients undergoing dialysis.
H4: There will be a significant association between pretest level of knowledge and attitude scores regarding lifestyle modifications among patients undergoing dialysis.with their selected demographic variables.

OPERATIONAL DEFINITIONS
Effectiveness
In the study, it refers to the extent to which the structured teaching programme on knowledge and attitude regarding life style modifications among patients undergoing dialysis which is able to produce the desired effect as measured in terms of gain in test knowledge score and attitude score.

Structured teaching programme
It refers to the teaching programme delivered with the help of PPT and a booklet regarding the lifestyle modifications among patients undergoing dialysis. It includes medication, diet, exercise, and hypertensive management, glycemic control and smoking cessation of alcohol, relaxation technique, and prevention of complication and follows up.

Knowledge
It refers to the written response to the knowledge questionnaire on the lifestyle modifications among Patients undergoing dialysis which is assessed by the scores obtained.

Attitude
It refers to the feeling and belief of the day to day activities of a patient undergoing dialysis disease on lifestyle modifications, which is explored by the scores of attitude questionnaire.

Lifestyle modification
The lifestyle modification involves in the area of medication, diet, exercise and hypertensive, glycemic control, and smoking cessation, avoidance of alcohol, relaxation, technique, prevention of complication and follow up,

ASSUMPTIONS
➢ Patients may not have adequate knowledge and attitude regarding lifestyle modifications,
➢ Education will enhance the knowledge and attitude of patients undergoing dialysis regarding lifestyle modifications.

DELIMITATIONS
➢ Those who are undergoing dialysis in Shanmuga Multi-Speciality Hospital, Salem.
➢ Who are willing to participate in the study.
➢ Who are available at the time of data collection

LIMITATIONS
➢ The limited sample size places a limitation on the generalization of the study findings.
➢ The researcher could not use the randomized sampling technique in this study.
➢ Knowledge and attitude of the patient with undergoing dialysis were assessed only through the verbal responses structured interview schedule, which may be

selectively to various factors like inhibition of self expression.

- ➢ This study assessed only the patient with undergoing dialysis knowledge and attitude, actual practice was not observed.

II.RESEARCH METHODOLOGY

The methodology is the way to solve the problem systemically that includes the step of procedure and strategies of the data **(Polit and Beck).**

It includes research approach, research design, the setting of the study, population, sampling size and sampling technique, criteria for the selection of the sample, description of the tool, content validity, reliability, pilot study, data collection procedure and plan for data.

RESEARCH APPROACH

The quantitative research approach was selected to assess the effectiveness of structured teaching programme on knowledge and attitude regarding lifestyle modifications among patient with undergoing dialysis.

RESEARCH DESIGN

One group pretest, the post-test design was adopted for the present study.
Q1 X Q2
Q1: Pretest assessment
X : Intervention (Structure teaching programme on life style modifications)
Q2 : Post test assessment

RESEARCH VARIABLES

The Independent variable was structured teaching programme regarding lifestyle modifications.

The dependent variables were knowledge and attitude regarding lifestyle modifications among patient with undergoing dialysis.

Influencing variables were demographic variables.

THE SETTING OF THE STUDY

The study was conducted among patient with undergoing dialysis in Shanmuga multi-specialty hospital, Salem, consists of 6 bedded dialysis units with the outpatient coverage of 15 patients per day. This is a well-equipped hospital for kidney disorder patients with inpatient and outpatient department.

POPULATION

The population of the study includes patients with chronic kidney disease who are attending the outpatient department during the period of data collection.

SAMPLES AND SAMPLE SIZE

The sample size is 40 patients with chronic kidney disease.

CRITERIA FOR THE SELECTION OF SAMPLING
Inclusion Criteria
- The patient's age more than 20 years
- Patients diagnosed with chronic kidney disease within l-2years
- Both female and male patients with chronic kidney disease
- Patients who know either Tamil or English
- Patients who can read and write

Exclusion Criteria
- Patients who are not willing to participate in the study
- Patients who are critically ill
- Patients with chronic kidney disease for more than 2 years.

SAMPLING TECHNIQUE

Non -probability convenient sampling technique was used for selecting the samples.

DESCRIPTION OF THE TOOL

The researcher had developed a structured questionnaire after reviewing of the literature to assess the knowledge and attitude regarding lifestyle modifications among patient with undergoing dialysis. It consists of 3 sections.

Section -A: Demographic Variables

Demographic variables, which include sample number, age, sex, religion, education, occupation, marital status, family income, type of family, dietary pattern, body built, duration of disease, personal habits, associated illness.

Section B: Structured Knowledge Questionnaire

It contains 30 multiple choice questions to assess the level of knowledge regarding the lifestyle modifications in the areas of a brief anatomy of kidney, incidence, etiology, signs and symptoms, diagnostic tests, management and lifestyle changes like healthy kidney diet, exercise, smoking cessation, avoidance of alcohol, relaxation technique. Each correct answer carries one mark, and the wrong answer carries zero marks. The possible maximum score was30, the possible minimum score was 0. Knowledge questions were prepared in the English language.

Section- C: Structured Attitude Questionnaire

It consists of 14 statements to assess the attitude regarding lifestyle modifications. Both positive and negative statements are formed based on modified Likert attitude scale. The maximum score is 70 and the minimum score is l.

Attitude	Scoring Procedure	
	Positive statements (Questions No.1, 2, 3, 5, 7, 8, 9, 10, 11, 12, 13)	**Negative statements** (Questions No. 4, 6, l4)
Strongly agree	5	1
Agree	4	2
Undecided	3	3
Disagree	2	4
Strongly disagree	1	5

TOOL VALIDITY AND RELIABILITY
Content Validity
The tool was given to 5 experts in the field of nursing and medicine for content validity. All comments and suggestion given by experts were duly considered and corrections were made after discussion with the research guide. The modifications were incorporated in the preparing of final tool.

Reliability
The reliability of the tool was obtained by the Spearman split half method to make sure the reliability of the tool. The value of knowledge scorer was 0.93 and for attitude, score was 0.9. This tool was highly reliable.

PILOT STUDY
It was conducted among 4 samples for a period of one week. The pre-test result of this study showed that the patient with undergoing dialysis had inadequate knowledge and attitude. Structured teaching programme was given for 45 minutes and the post-test was conducted on the 7thday. The post-test score showed a significant increase in the knowledge and attitude regarding the lifestyle modifications among patient with undergoing dialysis. The pilot study revealed that the present study was feasible to conduct.

DATA COLLECTION PROCEDURE
Formal permission was obtained from the Managing Director of Shanmuga Multi-Specialty Hopital, Salem. The study was carried out for a period of four weeks from 1st January 2022 to 30th January 2022. Confidentiality and anonymity of the subjects were maintained. Informed consent was obtained from the respondent and the respondent was selected on the basis of the selection criteria. On the first day, demographic data were collected by a structured questionnaire and pre-test was conducted to assess the knowledge and attitude regarding lifestyle modifications among patients with chronic kidney disease by using a questionnaire. After the pre-test, structured teaching was given for 45 minutes about lifestyle modifications among patient with undergoing dialysis. The patients were encouraged to clarify their doubts. Post-test was conducted on the 15thday by using the same questionnaire to assess the effectiveness of structured teaching programme on improving the knowledge and attitude regarding lifestyle modifications. At the end of the session, booklets were distributed to the patients, those who have participated in the teaching programme.

PLAN FOR DATA ANALYSIS
Data were analyzed by using descriptive and inferential statistics. Descriptiv statistics were used to analyze the frequency, percentage, mean, standard deviation. Inferential statistics, paired 't' test was used to assess the effectiveness of knowledge and attitude of patient with undergoing dialysis. Karl Pearson's Co-efficient was used to assess the relationship between knowledge and attitude of reading lifestyle modifications among patient with undergoing dialysis and the $\chi 2$ test was used to find out the association between the selected demographic variables with the pre-test knowledge and attitude scores.

III.DATA ANALYSIS AND INTERPRETATIONS
This chapter deals with the analysis and interpretation of the data collected from patient with undergoing dialysis at Shanmuga Mullti-pecialty Hospital, Salem regarding lifestyle modifications.

The findings, based on the descriptive and inferential statistical analysis tabulated as follows

Section- I: Distribution of demographic variables of patient with undergoing dialysis.

Section- II: Description of statistical value of pretest and post-test knowledge scores regarding lifestyle modifications among patient with undergoing dialysis.

Section – III: Description of statistical value of pretest and posttest attitude scores regarding lifestyle modifications among patient with undergoing dialysis.

Section – IV: Correlation of pretest and posttest knowledge and attitude scores regarding lifestyle modifications among patient with undergoing dialysis.

Section-V: Association of selected demographic variables with pre-test scores of knowledge regarding lifestyle modifications among patient with undergoing dialysis.

Section-VI: Association of selected demographic variables with pre-test scores of attitude regarding lifestyle modifications among patient with undergoing dialysis.

Section- I: Description of demographic variables patient with undergoing dialysis:

- ❖ Among the respondents, 2 (5%) were aged between 21-30 years, 8 (20%) were aged between 3- 40 years, 16(40%) were aged between 41-50 years, 14 (35%) were >50 years of age.
- ❖ Regarding gender, the respondents 28(70%) were males and 12(30%)were females.
- ❖ Considering the religion, 31(77.5%) were Hindu, 6(15%) were Muslims and 3(7.5%) were Christian.
- ❖ Regarding education, 2(5%) were illiterate, 18(45%) had primary education, 12(30%) had secondary education and 8(20%) were graduates and diploma holders.
- ❖ Regarding occupation 10 (25%) were unemployed, 8 (20%) were self-employed, 5(12.5%) were government employees, 11 (27.5%) were private employees and 6(15%) were coolie workers.
- ❖ Regarding the monthly income of the family 10 (25%) were earning more than Rs. >5000, 9 (22.5%) were earning between Rs. 5001-15000, 11(27.5%) were earning between Rs. 15001-25000, 10 (25%) were earning more than Rs. 25001.
- ❖ Regarding marital status 34 (85%) were married, 4 (10%) were unmarried, 2(5%) were others.
- ❖ Regarding the type of family 12 (30%) were belongs to the joint family, 28 (70%) belonged to a nuclear family.

- ❖ Regarding dietary pattern 6(15%) were vegetarian, 34(85%) were non vegetarian.
- ❖ Regarding body built 10(25%) had a thin body built, 20(50%) were moderately built, 7(17.5%) were obese and 3(7.5%) were very obese.
- ❖ With regards of the duration of chronic kidney disease in 1-5 months were no cases, 5(12.5%) were having during of 6-10 months, 14(3500) were having during of 11- 15 months, 21 (52.5%) were having during of 16-24 months.
- ❖ About personal habits 10(25%) were having a habit of alcohol, 9(22.5%) were having a habit of smoking, 7(17.5%) were having habits of alcohol and smoking, no one is having a habit of tobacco and 14(35%) were none of the above.
- ❖ Regarding associated illness 1 1(27.5%) respondents were having diabetes, 15(37.5%) were having hypertension, 8(20%) were having cardiovascular disease, no one is having an obesity-associated illness and 6(15%) were coming under none of the above categories.

SECTION – II
Mean, standard deviation and t" value of Pre-test and Post-test knowledge Scores Regarding lifestyle modifications Among patient with undergoing dialysis.

S.No	Knowledge	Mean	SD	't' value	Level of significance
1	Pre-test	15.77	3.9		
2	Post-test	22.82	2.97	16.87*	0.05*

Above Table shows that the mean score of knowledge in pre-test was 15.77 and post-test was 22.82. The calculated 't' value 16.87 at df (39) was greater than the table value at 0.05 level of significance. It reveals that there was a significant difference between the pre-test and post-test knowledge scores. So the results are concluded that structured teaching programme has a significant effect on improving the level of knowledge among patient with undergoing dialysis.

SECTION – III
Mean, standard deviation and t" value of Pre-test and Post-test attitude Scores Regarding lifestyle modifications Among patient with undergoing dialysis

S.No	Knowledge	Mean	SD	't' value	Level of significance
1	Pre-test	41.25	9.59		
2	Post-test	53.8	7.33	18.87*	0.05*

Above Table shows that the mean score of attitude in pre-test was 41.25and post-test was 53.8. The calculated 't' value 18.87* at df (39) was greater than the table value at 0.05 level of significance. It reveals that there was a significant difference between the pre-test and post-test attitude scores. So the results are concluded that structured teaching programme has a significant effect on the improvement of attitude regarding lifestyle modification among patients with chronic kidney disease.

SECTION-IV
Correlation of pretest scores of the knowledge and attitude regarding life style modification among patient with undergoing dialysis

Mean, standard deviation and correlation of pretest scores of the knowledge and attitude regarding life style modification among patient with undergoing dialysis

S.No	Pre-Test	Mean	SD	r
1	Knowledge	15.77	3.9	
2	Attitude	41.2	9.59	+0.67

Mean, standard deviation and correlation of post test scores of the knowledge and attitude regarding life style modification among patient with undergoing dialysis.

S.No	Pre-Test	Mean	SD	r
1	Knowledge	22.82	2.97	
2	Attitude	53.5	7.33	+0.73

Above Table shows there was a positive correlation between knowledge and attitude in pretest and post-test. Compare with pre-test, the post-test 't' score is increased. It shows that parents developed adequate knowledge and favorable attitude after the structured teaching programme.

SECTION – V
Association of Demographic Variables with Pretest Scores of Knowledge Regarding
Life Style Modifications Among patient with undergoing dialysis

The association of knowledge with demographic variables with pretest knowledge score on lifestyle modification among patient with undergoing dialysis. The obtained "χ^2" value of education was 13.45 at 4 (df) significant at 0.05 level. It shows that there was an association between education score with a knowledge score of the pre-test. The other variables like age, sex, religion, occupation. Income, marital status, type of family, dietary pattern, duration of disease, personal habits, associated illness were not associated with a knowledge score of the pre-test.

SECTION – VI
Association of Demographic Variables with Pretest Scores of Attitude Regarding
Life Style Modifications Among patient with undergoing dialysis.

The association of attitude with demographic variables by χ^2test. It reveals that the age, sex, religion, occupation, income, marital status, type of family, body built, duration of chronic kidney disease, personal habits, associated illness obtained had no significant association with a pretest attitude score of subjects. So there is no association between attitude and selected demographic variables.

SUMMARY, CONCLUSION, NURSING IMPLICATIONS, LIMITATIONS AND RECOMMENDATIONS
The major finding of the Study was as Follows
- The pretest mean value of knowledge was 15.77

- The post-test mean value of knowledge was-22.82
- The pre-test mean value of attitude was 41.25
- The post-test mean value of attitude was 53.8
- The obtained 't' value for comparison of knowledge score at $p<0.05$ level was 16.87
- The obtained 't' value for comparison of attitude score at $p<0.05$ level was 18.87.
- The correlation between knowledge and attitude in pre-test regarding lifestyle modification among patients with chronic kidney disease was + 0.67
- The correlation between knowledge and attitude in post-test regarding lifestyle modifications among patients with chronic kidney disease was + 0.73
- The demographic variable education is having a significant association with pre-test knowledge score of lifestyle modifications among patients with chronic kidney disease and other variables like age, sex, religion, occupation, income, marital status, education, family type, dietary pattern, body built, duration of chronic kidney disease,
- The demographic variables namely age, sex, religion, education, occupation, income, marital status, education, family type, dietary pattern, body built, duration of chronic kidney disease, personal habits, associated illness showed no significant association with pre-test attitude score of lifestyle modifications among patients with chronic kidney disease.

CONCLUSION
- This educative measure shows that there is a significant improvement in knowledge and attitude regarding lifestyle modification among chronic kidney disease patients. The post-test score of knowledge and attitude were highly significant when compared with pretest score. Hence the alternative hypothesis is accepted.
- Karl Pearson coefficient of correlation was used to correlate knowledge and attitude score of study subjects. There was a positive correlation between knowledge and attitude score in pre-test and post-test.

Results Show that the improvement in knowledge which develops the favorable attitude towards the lifestyle modifications of chronic kidney disease patient.

- The $\chi 2$ test was used to find out the association between selected demographic variables with knowledge and attitude regarding lifestyle modifications of patients with chronic kidney disease. The result revealed that the educational status has the significant association with pre-test knowledge score.Other variables were not associated with pre-test knowledge score. The demographic variables were not associated with attitude pretest score.

NURSING IMPLICATIONS

The findings of the study have implications for various areas of nursing practice, nursing education, nursing administration and nursing research.

Nursing Education
- The nursing curriculum is a mean through which future nurses are prepared. The emphasis needs to he planned on preventive and promotive health practice.
- A video-assisted teaching programme regarding lifestyle modifications must be emphasized in the nursing curriculum.
- The nursing curriculum should include the training for students related to the

creation and projection of videos.
- Student nurses have to update their knowledge regarding the incorporation of video in health education.

Nursing Practice
- The study can emphasize on improving the knowledge and attitude regarding lifestyle modifications by educative measures.
- Education about lifestyle modifications to reduce the progression of chronic kidney disease and increase the quality of life.
- Nurses can also impart knowledge regarding lifestyle modifications to maintain and increase the quality of life.
- Nurses conduct teaching programs on chronic kidney disease and its Management.

Nursing Administration
- Nurse administrators should take interest in formulating guidelines and various modalities of treatment of chronic kidney disease. Through in-service education programmes, nurses can be motivated to learn and practice the lifestyle modifications for chronic kidney disease.

- The nursing administrators should be able to motivate and initiate the health personnel in organizing and participating in various educational programmes and improve their skill and knowledge.

Nursing Research
- Extensive research must be conducted in this area to identify the effectiveness of video assisted teaching programme which would be beneficial to the chronic kidney disease.
- This study can be the baseline for the further studies to build upon. Research should be done to find out various innovative methods of effective teaching to improve the knowledge and attitude on lifestyle modifications.
- Researches can be done with the help of the teaching programme in various other issues of health.
- It can be used for evidence-based practice as a new trend in treatment modality for chronic kidney disease.

LIMITATIONS
- The limited sample size places a limitation on the generalization of the study findings.
- The researcher could not use randomized sampling technique in this study.
- Knowledge and attitude of chronic kidney disease patient were assessed only through the verbal responses through structured interview schedule, which may be selective to various factors like inhibition of self-expression.
- This study assessed only the chronic kidney disease patient knowledge and attitude, actual practice was not observed.

RECOMMENDATIONS
- A similar study can be used as a comparative study between the effectiveness

of medical management and complementary therapies.
- A similar study can be done to assess the stress level of chronic kidney disease.
- A Similar kind of study can be conducted for a large group.

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