"A STUDY TO ASSESS THE KNOWLEDGE REGARDING CARE OF PATIENTS DIAGNOSED WITH CHRONIC KIDNEY DISEASE AMONG NURSING OFFICERS WORKING IN R. L. JALAPPA HOSPITAL, KOLAR".

By

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Research Project submitted to the
Sri Devaraj Urs College of Nursing, Tamaka, Kolar
In partial fulfillment of the requirement for the degree of

MASTER OF SCIENCE IN NURSING

In

MEDICAL SURGICAL NURSING SPECIALITY

Under the guidance of

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Tamaka, Kolar-563101

2023

DECLARATION BY THE CANDIDATE

I hereby declare that this dissertation entitled **"A study to assess the Knowledge regarding care of patients diagnosed with Chronic Kidney Disease among nursing officers working in R. L. Jalappa Hospital, Kolar".** is a bonafide and genuine research work carried out by me under the guidance of Dr. Zeanath Cariena.J**,** Prof & HOD Dept. of Medical Surgical Nursing**,** Sri Devaraj Urs College of Nursing and Chief Nursing Officer at RLJH&RC Tamaka, Kolar.

Signature of the candidate

(Mr. Suresha R S)

Date:

Place: Tamaka, Kolar

CERTIFICATE BY THE GUIDE

This is to certify that the dissertation entitled **"A study to assess the Knowledge regarding care of patients diagnosed with Chronic Kidney Disease among Nursing officers working in R. L. Jalappa Hospital, Kolar".** is a bonafide research work done by

Mr. Suresha R S in partial fulfilment of the requirement for the degree of Master of Science in Medical and Surgical Nursing.

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ENDORSEMENT BY THE HEAD OF THE DEPARTMENT/ PRINCIPAL /HEAD OF THE INSITITUTION

This is to certify that the dissertation entitled**, "A study to assess the Knowledge regarding care of patients diagnosed with Chronic Kidney Disease among Nursing officers working in R. L. Jalappa Hospital, Kolar".** is a Bonafede research work done by Mr.Suresha R S is under the guidance of Dr. Zeanath Cariena.J**,** in partial fulfilment of the requirement for the degree of Master of Science in Medical Surgical Nursing**.**

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ABSTRACT

INTRODUCTION

Chronic Kidney disease is the most common disease affecting humans worldwide, it was identified by world health report 2020 as the third ranked factor for disability and it is one of the most important risk factors for hypertensive and Diabetes patients, which are the leading cause of death around the globe. Nurses are playing vital role in prevention of co morbidities in CKD patients. Based on the available literature and researchers experience a study undertaken to "A study to assess the Knowledge regarding care of patients diagnosed with Chronic Kidney Disease among Nursing officers working in R. L. Jalappa Hospital, Kolar". to determine the association between the knowledge with selected socio demographic variables.

Methods and materials

A Descriptive survey Design was adopted by using purposive sampling technique. A total of 200 Nursing officers were included in the study. A Structured Knowledge Questionnaire was used to collect the data based on expert's validation and inclusion criteria of the study.

Major findings

Based on the objectives of the study the overall knowledge level majority 38.6% of the sample belonged to the inadequate knowledge and 58.6% had moderate knowledge, and none of them belonged to adequate knowledge. Regarding area wise knowledge on general information mean knowledge score was 3.04(SD+ 0.79), CKD diet and exercise mean score was 2.66(SD+ 0.91)

and CKD management mean score was 4.09(SD+ 1.37) and management of complications mean score was 1.03(SD+ 0.65). Finally, the researchers concluded that findings of the study clearly showed that there was inadequate knowledge on management of CKD among the nursing officers, thus, study recommended on creating awareness on care CKD management and good monitoring can prevent complications related to CKD management ultimately impact on the quality of life. The researcher recommends conducting the study in different setting and as one of the descriptive design was used to generalize the study findings.

CONCLUSION

Finally, the researchers concluded the findings of the study clearly showed that there was Moderate Knowledge on CKD management among Nursing officers, thus study recommended to conduct seminar to the nursing officers on current practice to save the lives.

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CHAPTER – I

INTRODICTION

Health systems and polices have a critical role in determining the manner in which health services are delivered, utilized and affect health outcomes. A health system consists of all organizations, people and actions whose primary intent is to promote, restore or maintain health. This includes efforts to influence determinants of health as well as more direct health-improving activities. A health system is, therefore, more than the pyramid of publicly owned facilities that deliver personal health services[1].

Non-communicable diseases (NCDs) encompass a vast group of diseases such as cardiovascular diseases, cancer, diabetes and chronic respiratory diseases. NCDs contribute to around 38 million (68%) of all the deaths globally and to about 5.87 million (60%) of all deaths in India. Preventive aspect of NCDs is strengthened under Comprehensive Primary Health Care through Ayushman Bharat Health Wellness Centre scheme, by promotion of wellness activities and targeted communication at the community level. Other initiatives for increasing public awareness about NCDs and for promotion of healthy lifestyle include observation of National & International Health Days and use of print, electronic and social media for continued community awareness[2].

Health system planning requires careful assessment of chronic kidney disease (CKD) epidemiology, but data for morbidity and mortality of this disease are scarce or non-existent in many countries by estimated the global, regional, and national burden of CKD, as well as the burden of cardiovascular disease and gout attributable to Impaired

kidney function, for the global burden of diseases, injuries, and risk factors. Globally, 1·2 million people died from CKD[3].

The Global all-age mortality rate from CKD increased 41·5% between 1990 and 2019, although there was no significant change in the age-standardized mortality rate (2·8 %,). In 2019, 697·5 million (95%) cases of all-stage CKD were recorded, for a global prevalence of 9·1%. The global all-age prevalence of CKD increased 29·3% since 1990, whereas the age-standardized prevalence remained stable (3·5). CKD resulted in 35·8 million DALYs in 2019, most of the burden of CKD was concentrated in the three lowest quintiles of Socio-demographic Index (SDI). In several regions, particularly Oceania, sub-Saharan Africa, and Latin America, the burden of CKD was much higher than expected for the level of development, whereas the disease burden in western, eastern, and central sub-Saharan Africa, East Asia, south Asia, central and Eastern Europe, Australasia, and Western Europe was lower than expected. 1·4 million cardiovascular disease related deaths and 25·3 million cardiovascular disease DALYs were attributable to impaired kidney function[4].

A recent systematic review for Africa revealed a pooled prevalence of 10 in 1 among the population suffering from chronic kidney disease. The severity in sub-Saharan Africa seems to be higher as evidenced by an estimated pooled prevalence of more than 14%[5].

A study conducted in Nepal revealed 44% of nurses having low level of practice regarding patient's care during haemodialysis in Tanzania, 59.4% of nurse revealed low knowledge of CKD with 72.4% not knowledgeable about nutrition of chronic

kidney disease patients moreover, moderate knowledge to majority [70.6%], with only 17.6% good knowledge and 11.8% low knowledge was highlighted among nurses. a study conducted by among health care workers highlighted a significant association between age group (p=0.01), the studies reveal non-significant associations between knowledge and age (p =.31) as well as knowledge and years of nursing experience (p =.488) furthermore, identified a significant difference in knowledge between the groups, with primary care providers reporting more uncertainty about relative survival rates with conservative management compared with different patient groups of the aforementioned studies, identified no relationship between knowledge and practice though it was on only considering patients on haemodialysis[6].

The knowledge and proper inpatient management of CKD for health care providers is crucial in reducing mortality and morbidity among CKD patients. mismanagement of CKD patients tend to increase mortality and morbidity, quick progression to end stage renal disease (ESRD), decreased quality of life, recurrent infections of patients with catheters who are on haemodialysis, malnutrition among CKD patients and fluid overload in Rwandan context, the management of CKD patients is done at tertiary hospitals and encompasses dialysis, medication compounded with dietary and fluid restriction. Hence, the present study is revealed on assessing knowledge related to CKD[7].

Population-based initiative for prevention, control and screening for common Non-Communicable Diseases (NCDs) i.e. diabetes, hypertension and common cancers has been rolled out in the country under NHM and also as a part of Comprehensive

Primary Health Care. Under the initiative, persons more than 30 years of age are targeted for their screening for the common NCDs, in which there is focus on screening of breast cancer and cervical cancer among women. Screening of these common NCDs is an integral part of service delivery under Ayushman Bharat – Health and Wellness Centers. Chronic kidney disease is now known as a major medical problem worldwide[8].

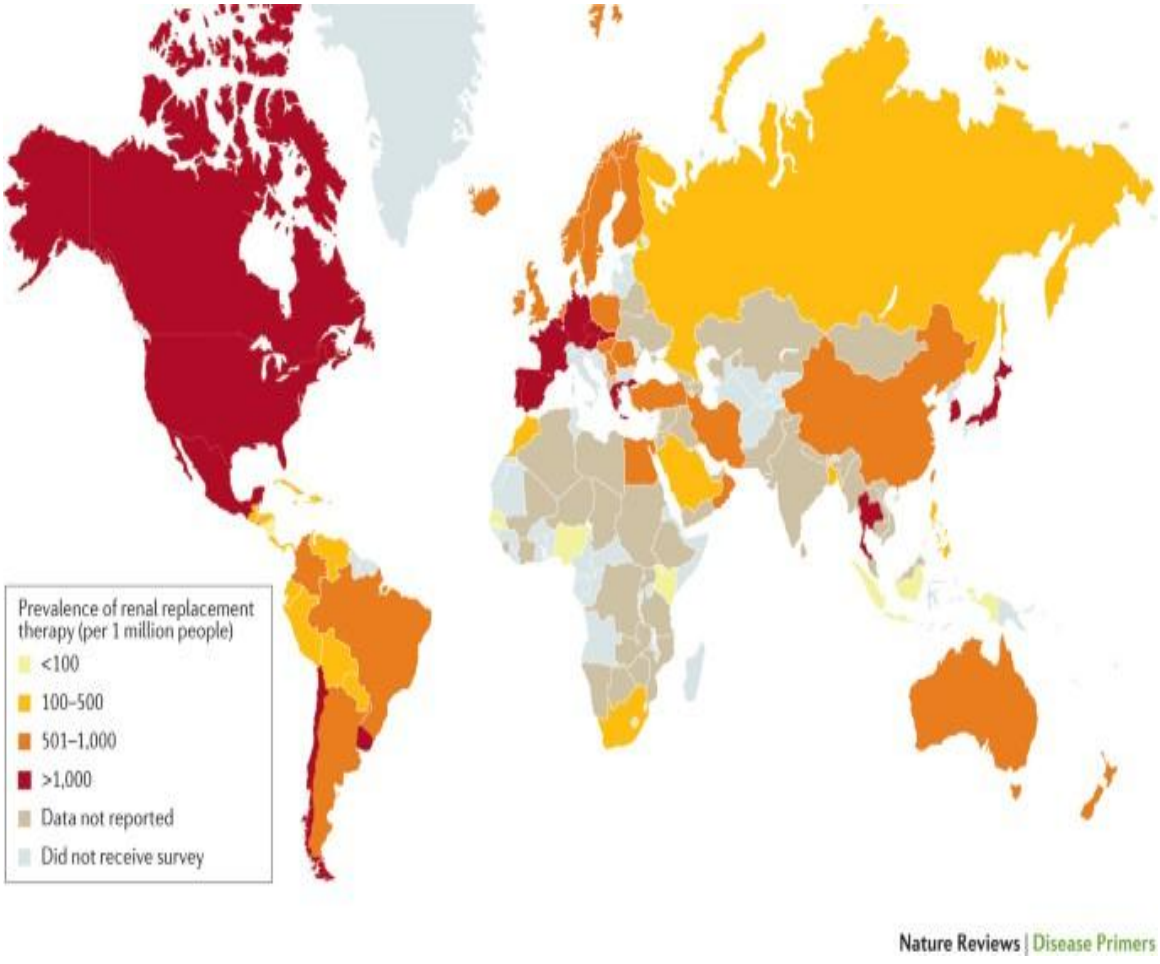


Fig. 1 Global overall CKD prevalence rate

In 2015, the global burden of disease study emphasizes chronic kidney disease as 17th among the causes of death worldwide and among the five causes of death in

many countries (Jai & Modi ,2017) with an estimated prevalence of 15.8%). It is defined as an estimated glomerular filtration stage 3 to stage 5, 50% of kidney function has been lost with significant increased risk of morbidity and premature deaths. End stage renal disease or stage five is the worst stage of Chronic Kidney Disease where death is an inevitable consequence unless the renal replacement therapy is introduced[9].

NEED FOR THE STUDY

Non communicable disease (NCDs) is now the leading cause of death in worldwide. Representing a growing threat to national and global health as well as social and economic development, these diseases are increasingly recognized by governments, non-government organizations (NGOs) and the scientific community as a chronic global epidemic and their burden is expected to double by 2030[10].

According to the study report "India Kidney disease ranks third among life threatening diseases in the world, after cancer and heart disease, it goes about 200000[11].

Health of the Nation's States"- The India State-Level Disease Burden Initiative in 2017 by Indian Council of Medical Research (ICMR), it is estimated that the proportion of deaths due to Non-Communicable Diseases (NCDs) in India have increased from 37.9% in 1990 to 61.8% in 2016. The four major NCDs are cardiovascular diseases (CVDs), cancers, chronic respiratory diseases (CRDs) and diabetes which share four behavioral risk factors –unhealthy diet, lack of physical activity, and use of tobacco and alcohol[12].

The role of nurses in chronic kidney disease (CKD) management is crucial. Primarily care nurses play a pivotal role in the management of patients with CKD. The nurse helps and enables people to be aware of their condition and educate them to make informed decisions about long-term treatment. Enhancing self-management can be achieved by applying appropriate clinical measures to manage risk and increase patient safety in CKD. Primarily nurses facilitate timely testing and intervention,

screening, diagnostic, management and treatment guidelines and also promote sodium restriction, adequate nutritional intake, and administration of medications as indicated, prepare patient for dialysis[13].

Chronic Kidney Disease (CKD) is a serious condition to manage and requires multidisciplinary team involvement. Nurse's knowledge and perceptions regarding management of CKD is paramount as this decrease the morbidity and mortality among the population[2]. A recent systematic review for Africa revealed a pooled prevalence of 10, 1% (95CI 9.8% to 10.5%) among the population suffering from chronic kidney disease. The severity in sub-Saharan Africa seems to be higher as evidenced by an estimated pooled prevalence of more than 14%[14].

An objective study involving 60 nurses was conducted in October 30, 2018 to June 4, 2019 on nurses working in dialysis centers at Baghdad Teaching Hospital. And Al-Rusafa Health Directorate in Baghdad, which includes: Al-Kindi Teaching Hospital and Imam Ali (peace be upon him) Teaching Hospital to assess the knowledge and practices of nurses related to the work guide for the efficient blood enforcement program in Baghdad educational hospitals and the study sample was an unweight sample (a purposeful sample) that includes (60) nurses. A questionnaire study tool was used for the purpose of research and it consists of two parts, and these parts are the form of demographic data and the knowledge and practice elements index. Data revealed that majority of the participants were within age between (20-29) years with job experience (1-5) years, majority were holding General secondary nursing school graduate. Majority nurses showed poor level of knowledge and practices towards hemodialysis adequacy guide line in hospitals. The current study concluded that the

nurses' knowledge and practices are weak. This indicates the urgent need for the work of the education and awareness program to improve the knowledge of the nurses regarding the work guide for an efficient blood enforcement program[15].

Chronic kidney disease, if not managed carefully, can become progressive therefore it is up to health care professionals to ensure that all is realistically done to slow down the process. Effective monitoring according to disease stage, health education and appropriate timely referral to specialist services, can benefit individuals with CKD in terms of improving long-term outcomes. However, early detection is paramount if we are to offer patients some respite from another long term condition[16].

A cross-sectional descriptive study carried out among nurses in Akure, Southwest Nigeria during their mandatory continuing professional development program required for practicing license renewal. Knowledge of CKD was assessed using self-administered pretested questionnaires. $P < 0.05$. One-hundred nurses participated in the study with a male: female ratio of 1:3.7. The mean duration of their nursing experience was 14.5 ± 9.1 years. Only 15% had nephrology posting during their training. Six (6%) of the respondents had good knowledge of CKD, 55 (55%) had fair knowledge, and 37 (37%) had poor knowledge. Only 5% was aware of renal care policy in Nigeria. Junior and intermediate cadre nurses had better knowledge of CKD than senior cadre nurses ($P = 0.4$). Nurses who had nephrology posting during their training had significantly higher mean knowledge score than others ($P = 0.36$). The study revealed that significant deficiencies in the knowledge of CKD among non-nephrology nurses who participated in the study. Junior and intermediate cadre nurses and those who had nephrology postings had better knowledge of CKD[17].

Preliminary survey Based on the available review of literature and personal experience of the investigator many nursing officers were found to have inadequate knowledge about CKD management and action taken plans in the process of trauma individuals. Thus, the researcher strongly felt the need to explore the level of knowledge among nursing officers to improve the knowledge and contribute to the health care sectors by empowering the knowledge of Nursing Officers for handling CKD patients to improve the Quality of Life.

STATEMENT OF THE PROBLEM

"A study to assess the Knowledge regarding care of patients diagnosed with Chronic Kidney Disease among nursing officers working in R. L. Jalappa Hospital, Kolar".

OBJECTIVES OF THE STUDY

1. To assess the knowledge regarding care of Chronic Kidney Disease patients among staff nurses by using Structured Knowledge Questionnaire.

2. To determine the association between knowledge with selected socio - demographic variables.

ASSUMPTIONS

1. Nursing officers will have some knowledge regarding care of C K D Patients.

2. Knowledge of Nursing Officer will influence the care CKD patients.

OPERATIONAL DEFINITIONS

KNOWLEDGE:

In this study knowledge refers to the level of understanding of Nursing Officers on care of patients with Chronic Kidney Disease.

CHRONIC KIDNEY DISEASE:

In this study Chronic Kidney Disease refers to the abnormality of kidney structure or renal function as defined by markers of kidney disease or decrease in GFR below 60ml/min/1.73m2 for more than 3 months[18.]

NURSING OFFICER:

In this study Nursing officers refers to the Registered Nurses who are formally qualified with GNM, B. Sc. (N), P. B. B. Sc. (N), & M. Sc.(N) and is working at RLJH&RC Hospital, Kolar.

CONCEPTUAL FRAME WORK

Conceptual Framework deals with abstractions that are assembled by virtue of their relevance to a common theme. Conceptualization is a process of forming ideas, which is utilized and forms conceptual framework for development of research design. It helps the researcher by giving direction to go about entire research process.

The present study aimed to assesses the knowledge regarding care of patients diagnosed with Chronic Kidney Disease among nursing officers working in R L Jalappa Hospital, Kolar.

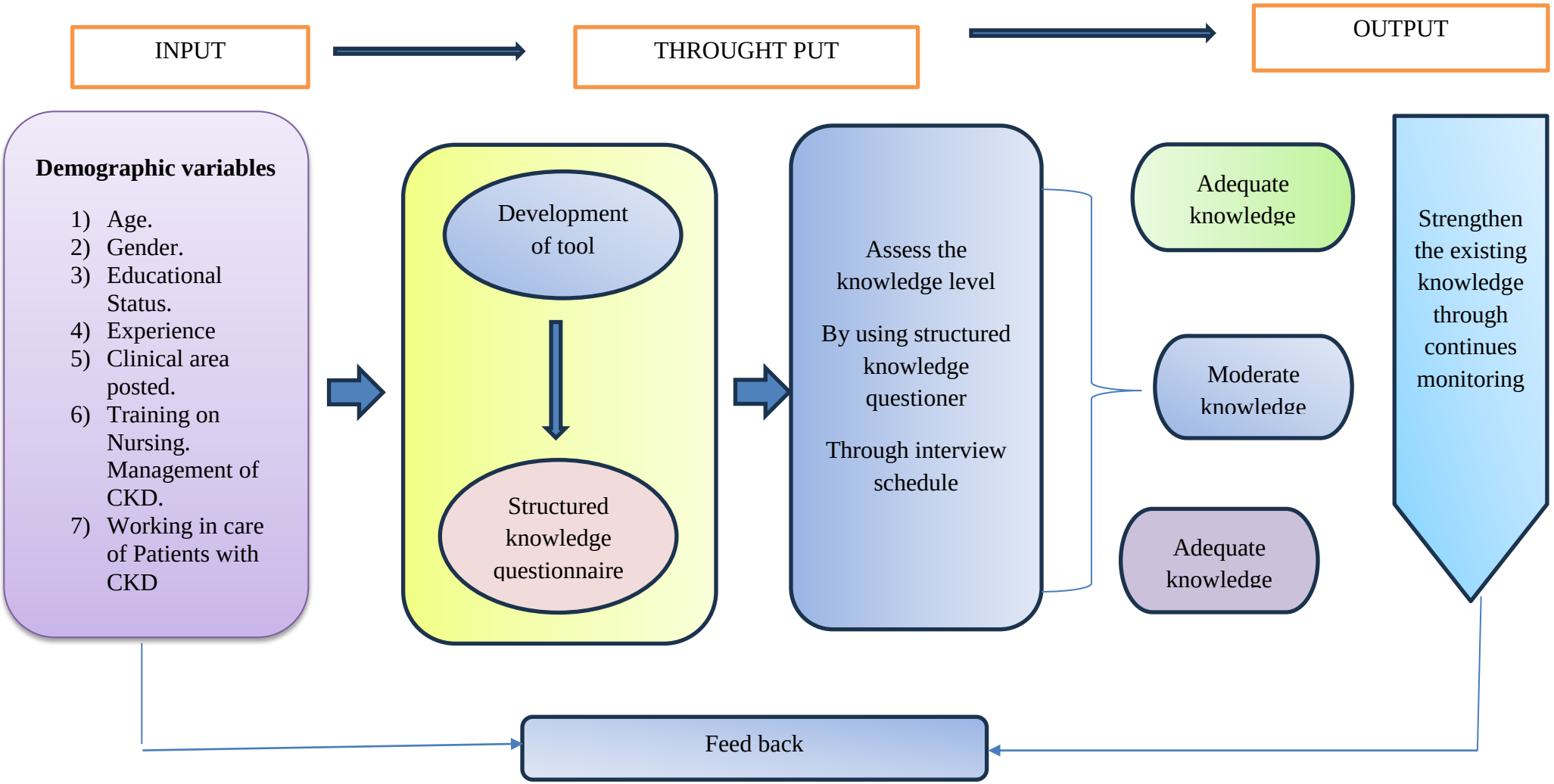
The frame work of the present study was developed by investigator based on General System Theory which consists of 4 major components like Input, Throughput, Output, and Feedback.

General system theory was first introduced by Von Bertalanffy in 1968. He defines a system as an organized whole unit that produces an effect or product when interdependent component parts interact with environment.

All living systems are open systems, which promote the exchanged of matter, energy and information with other system (subsystem), and environment (supra system), the exchange within open system, between open system and their supra system is continuous. The dynamic balance within and between the system, the subsystem and supra systems helps to creates and maintain internal stability. The change in one part of the system creates change in other parts.

The openness of human system made the investigator to assess the relationship among the factors that affects the person, which includes the influence of subsystem and supra system.

INGENERAL SYSTEM THEORY



INPUT: Input refers to the information, energy or matter, which enters the system.

In this study Chronic Kidney Disease patient's is a system and has input with the system itself (subsystem) which is acquired from the environment (supra system). These inputs include learner's background like gender, age; educational status and clinical area of posted which may influence the nursing officer's knowledge on management of CKD patients.

THROUGHPUT: Throughput refers to the action needed to accomplish the desired task to achieve the desired output.

In this study it refers to development of validated Structured Knowledge Questioner and its administration to assess the level of knowledge among nursing officers on Chronic Kidney Disease by using Structured Knowledge Questioner.

OUTPUT: Output refers to the end result or product of the system

In this study it refers to the result outcome of nursing officers based on showing their knowledge level as adequate or inadequate in relation to management of Chronic Kidney Disease patients. If the knowledge level is found inadequate, rectification can be done by strengthening the existing knowledge through continuous monitoring, which is not under the preview of the study.

FEEDBACK

Feedback is the process whereby the output of the system is redirected to input of the same system. If the knowledge is found to be inadequate, the systems input and throughput has to be re-evaluating which is not included in the present study.

SUMMARY

This chapter has explained in detail about Introduction, prevalence/ burden of Chronic Kidney Disease need for the study, statement of research problem, objectives, operational definition, assumptions and conceptual frame work of the study which helped the researcher to gain in-depth insight into the research study.

CHAPTER II

REVIEW OF LITERATURE

The literature for the present study will be reviewed from the text books, journals, electronic resources articles and organized under the fallowing headings.

Studies related to the prevalence of chronic kidney disease.

Chronic kidney disease is a progressive condition that affects >10% of the general population worldwide, amounting to >800 million individuals. Chronic kidney disease is more prevalent in older individuals, women, racial minorities, and in people experiencing diabetes mellitus and hypertension. Chronic kidney disease represents an especially large burden in low- and middle-income countries, which are least equipped to deal with its consequences. Chronic kidney disease has emerged as one of the leading causes of mortality worldwide, and it is one of a small number of non-communicable diseases that have shown an increase in associated deaths over the past 2 decades. The high number of affected individuals and the significant adverse impact of chronic kidney disease should prompt enhanced efforts for better prevention and treatment[19].

As per the study published in this issue is from a rural belt of Karnataka. The population had a mean age of 39.0 years with 3.82% prevalence of diabetes and 33.62% of hypertension. Authors found that 6.3% prevalence of CKD stage3, which is the highest, reported till date by any Indian worker. It is disturbing the high prevalence of hypertension in a rural setting where over 75% population had normal or low body mass index. in comparison to most other published studies from India, the present study population is younger and even the prevalence of diabetes is low but surprisingly despite that prevalence of stage 3 CKD is reported to be higher (6.3%). It

is disturbing to see the rising prevalence of hypertension and CKD in rural belts. Possibly with shifting population the difference between urban and rural areas is getting blurred. Undoubtedly, we need more Indian data to validate these findings[20].

Chronic Kidney Disease and hypertension are two diseases which are strongly interrelated with an interacting cause and effect relationship. Hypertension is typically recognized to be one of the principal risk factors for Chronic Kidney Disease (CKD), and equally a decrease in renal function leads to high blood pressure which in turn accelerates the progression to renal failure. To prevent that hypertension leads to CKD, the control blood pressure is a requirement and this is achieved through antihypertensive medication and some lifestyle changes like low salt diet, but some people fail to follow those measures and their hypertension remains uncontrolled and progresses to CKD[21].

World Health Organization (WHO) report that more than one third (39%) of annual death of Ethiopia population was due to non-communicable disease (NCDs). High blood pressure also affects almost 1 billion people worldwide and is a leading cause of mortality and morbidity. The future risk of NCD forms of Chronic Kidney Disease (CKD), predominantly driven by increased rates of hypertension, smoking, and obesity, is a growing public health concern. It becomes severe issues for the people living in developing countries. CKD is a progressive failure in renal function for prolonged period of time. Tus, hypertension has been considered as the cause for CKD. Now days the prevalence of CKD is increasing worldwide due to an increase in the risk factors such as hypertension, diabetes, hyper-lipedema, obesity, and smoking. Approximately 6% of patients with essential hypertension have chronic kidney disease (CKD) and are at risk for progression to end-stage renal disease (ESRD). The

Seventh Report of the Joint National Committee (JNC7) and National Kidney Foundation Dialysis Outcomes Quality Initiative guidelines identify CKD as a higher-risk category requiring intensive blood pressure control to achieve a blood pressure goal of less than 130/80 mmHg. In Sub Saharan Africa the big alarming is about 32.3% among hypertensive patients have CKD[22].

According to study published in 2022, Chronic Kidney Disease (CKD) is a progressive condition that affects more than 10% of the general population worldwide, amounting to more than 800 million individuals. the prevalence of CKD worldwide varies from country to country but is typically between 10 percent and 14 percent. the number of people living with this condition was almost 700 million, but China and India contributed about a third of them, at approximately 130 million and 115 million cases are present[23].

According to report by Deccan Herald, around 10% of the Indian population suffers from Chronic Kidney Disease (CKD), and every year over one lakh cases of renal failure are reported. In India, it is estimated that a population of over 7.8 million people are living with chronic kidney diseases. Chronic kidney disease is a condition in which gradual damage to the kidneys leads to a reduction in the filtration ability of the nephrons. In India, 17% of the population suffers from CKD[24].

Chronic Kidney Disease (CKD) is a major public health burden that affects about 10% of the global population. CKD is defined as a decreased glomerular filtration rate, and increased excretion of urinary albumin, or both. uncontrolled hypertension (HTN) is the primary risk factor for chronic kidney disease, coronary artery disease, stroke, heart failure, and peripheral artery disease, every year millions of people die as

a result of inability to access adequate CKD treatment & hemodialysis, particularly in resource limited countries. CKD is prevalent in Africa and sub-Sahara Africa with the prevalence rate is 15.8% and 17.7%, respectively in the general population. The high risk populations such as patients suffer from Diabetes Mellitus; high blood pressure and HIV were highly vulnerable with the prevalence of 32.3% of CKD. The prevalence of CKD in Rwanda ranged from 4% to 24%, based predominantly on proteinuria as a marker of the disease[25].

A Cross-sectional study was conducted to determine the level of knowledge and practice towards CKD and its associated factors among hypertensive patients at Maraki Health Center, The sample size was 442, and a simple random sampling technique was used to select study participants. A total of 442 hypertensive patients were asked to participate in the study and 434 completed the questionnaire and included in the study with a response rate of 98.1%. Out of a total of 434 participants, the study revealed that half of the participants had good knowledge of CKD. However, fewer than half of the participants had a good preventive practice score towards the CKD[26].

A cross sectional study was conducted on "Knowledge towards prevention and early detection of chronic kidney disease and associated factors among hypertensive patients at chronic illness clinic in jimma town public hospitals", a total number of 338 patients were selected, the data were collected by structured interviewed administered questioner and medical related relieving using data obstructive format. The study revealed that over half of 198, of participants were males were living in urban, and 233 were married, more than one-third, 125, of hypertensive patients had

lived with the disease between five and ten years, and half 167, of hypertensive patients were treated by one or two drugs. Three hundred three (91.3%) patients had no comorbidities, 303 (91.3%) had no family history of kidney disease, diabetes mellitus, and cardiac disease, respectively, The study concluded that Hypertensive patients should be encouraged to be aware of risk factors of CKD, and health care providers should educate hypertensive patients about the prevention and early detection of chronic kidney disease[27].

A quantitative descriptive study was conducted method with a cross sectional approach, which involved 135 hypertension patients at the Intern Medicine Polyclinic room, selected by consecutive sampling technique. Data collection was gained through a questionnaire that contains 3 sub-scales of measurements, namely knowledge, attitude and practice scale. The data analysis was done by frequency distribution. The study revealed that most respondents had knowledge about CKD 15.08, it was showed positive attitude 36.50 and it had healthy practices to prevention of CKD 23.11. However, half of the respondents (65.2%) had incorrect information about the symptoms of CKD and did not show good practices related to a healthy lifestyle and conducting routine checks. And then study revealed that Health workers need to provide better health education to improve the knowledge of patients with hypertension towards chronic kidney disease[28].

A cross-sectional survey was conducted using a paper-based questionnaire at the medical and nephrology outpatients' clinics of a secondary and tertiary hospital in Maiduguri. The study enrolled 220 patients with CKD stages. Sixty-five percent of the participants had poor CKD knowledge. The patients who had a tertiary level of

education were significantly more likely to have higher CKD knowledge compared to those with no formal education. The study revealed that the majority of the participants had poor CKD knowledge. Tertiary educational level was the only significant independent predictor of higher knowledge of CKD [29].

A cross-sectional study conducted at Sandeman Provincial Hospital, Quetta included 303 non-dialysis ambulatory CKD patients The patients received a total of 2265 prescription lines, A total of (783/2265) drugs required dose adjustment. Of these, doses were not adjusted for (440) drugs in 162 patients. study revealed that patients over the age of 40 years and those with hypertension, diabetes mellitus and cardiovascular diseases were at significantly high risk of receiving inappropriate high doses of drugs. Our findings are consistent with previous studies that have reported older age as a risk factor for receiving inappropriate high doses of renally cleared drugs[30].

A study was conducted in patients undergoing hemodialysis in selected hospital at Madurai. A total of 100 patients were selected using convenient sampling technique. Tools used were Piper Fatigue Scale (PFS) interview scale. The therapeutic nursing intervention which includes planned teaching about care of patient with hemodialysis, demonstration of dialytic exercises, dietary management, adherence to medication, follow up, teaching on sexual relationship were administered over 4 days in a week for 4 consecutive weeks. The data was analyzed using descriptive and inferential statistics. The study revealed therapeutic nursing interventions were effective in improving quality of life and reducing fatigue level[31].

Studies related to the Knowledge on Chronic Kidney Disease among the Staff Nurses.

Health workers require adequate knowledge of chronic kidney disease (CKD) to be able to play their role in reducing the burden of CKD. Most previous studies focused on assessing knowledge of doctors on CKD; however, nurses are also important in primary, secondary, and tertiary prevention of CKD[32]

A descriptive research design was conducted in general intensive care unit and surgical ward in two hospitals namely: Assuit Main University and Mansoura Main University hospital. A convenient sample of approximately 100 nurses working in previous mention setting and provide patient care were included in this study and the period of data collection from 30th August 2018 to 30th November 2018. The results revealed that, total mean nurses' knowledge score regarding AKI in Assuit and Mansoura hospital poor and the statistically significant difference between both groups regarding pathophysiology, medical and nursing management of AKI. Thus, study findings concluded that the level of nurses' knowledge regarding AKI in both hospitals was generally poor.[33]

A quasi-experimental research design, experimental and control group pre-test and post-test design was used to synthesize research findings related to effectiveness of SIM among 80 Nursing Officers from Jag Pravesh Chandra Hospital & Swami Dayanad Hospital, Delhi through a Structured Knowledge Questionnaire. Data were analyzed using descriptive and inferential statistics. The study revealed that 41 had average knowledge, 25 had good knowledge and 11 had poor knowledge regarding

non-communicable diseases in both experimental and control group most of Nursing Officers had average to good knowledge, but due to over burden, patients and lack of time to study, they were not able to retain their knowledge. They require regular rebooting of their knowledge[34.]

SUMMARY

This chapter has provided a review of literature relevant to the problem stated. The literature presented was extracted through hand search and electronic search. It includes primary and secondary sources. It has helped the investigator in understanding the impact of the problem.

CHAPTER- III

METHODOLOGY

This chapter deals with the methodology adopted for the proposed study and the different steps under taken. It includes research approach, research design, setting, sample and sampling techniques sampling criteria development and description of the tool, procedure of data collection and data analysis. Methodology of the research indicates the general pattern of organizing the procedure for empirical study together with the method of obtaining valid and reliable data for problem under investigation[12].

RESEARCH APPROACH

Research approach will deal with the research on what data to collect and how to analyze it. It also suggests possible conclusion to be drawn from the data in view of the nature of the problem selected for the study. In this study Quantitative research Approach was used.

RESEARCH DESIGN

Research design is an investigators overall plan for obtaining answers for the research questions. In this study Descriptive survey research design was used.

SCHEMATIC REPRESENTATION OF RESEARCH METHODOLOGY

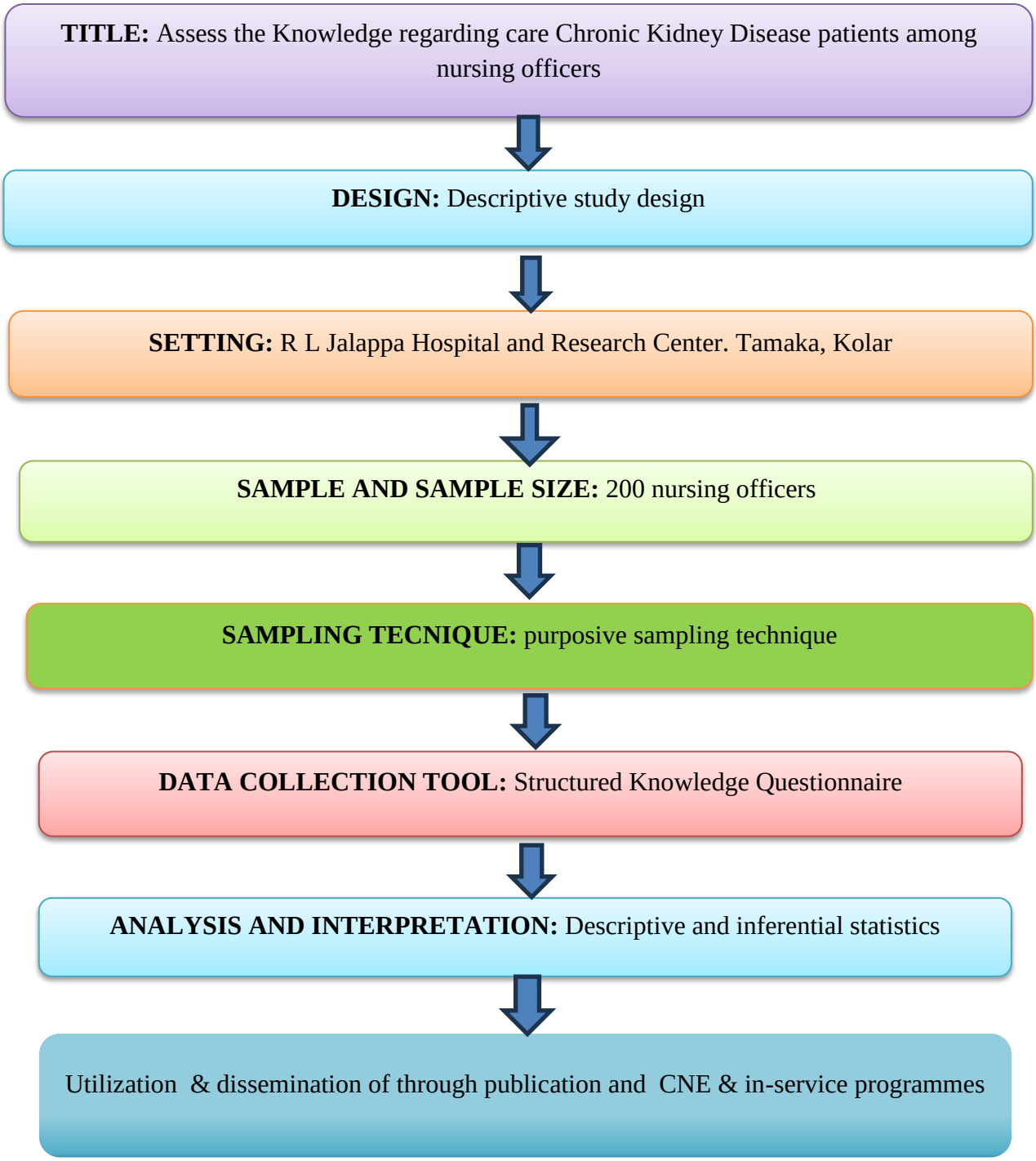


Fig no. 3 Schematic Representation of Research Methodology

SETTING OF THE STUDY

Setting refers to the area where the study is conducted.[14]

The study was conducted among at R. L. Jalappa Hospital and Research Center, which is medical teaching tertiary care hospital Kolar with 1225 beds.

POPULATION

The population for the study refers to the group which represents the entire group or all the elements like individuals that meet inclusion criteria in the study.[15]

All the Nursing officers working at R.L.J.H&RC. Tamaka, Kolar.

SAMPLE

Sample refers to subset of the population that is selected to participate in a particular study[14].

The sample for the study consists of Nursing officers working at R.L. Jalappa Hospital and Research Center.

SAMPLE SIZE

A total 200 Nursing officers were the sample for the study.

SAMPLE SIZE DETERMINATION

Power analysis is used to determine the sample size for this study, which considers results from earlier research and a thorough examination of the literature. This is derived by employing the technique to assess the difference between two means with a power of 95% and a predetermined significance level of 95% (CI) and 5% absolute error (d), the estimated sample size is around 183. If 10% of the sample's dropouts are

taken into account, the sample size is around 200 nursing officers The following formula is used to determine the sample size for a difference in two means:

$$n = 2\ \frac{\sigma^2(Z_\alpha + Z_{1-\beta})2}{(d)^2}$$

SAMPLING TECHNIQUE

Sampling technique defines the process of selecting a group of people or other elements with which to conduct a study.[16] For the present study purposive sampling technique was adopted to collect the data.

VARIABLES OF THE STUDY

In research, a variable is any quality of a participant, location, event, or phenomenon that the researcher attempts to quantify in some way.

Study variable: Knowledge level

ATTRIBUTE VARIABLE:

In this study, "Attribute Variables "describes the typical personal and professional traits of Nursing Officers, such as age, gender, previous experiences/exposure in handling CKD

SAMPLING CRITERIA

INCLUSIVE CRITERIA:

Nursing officers who will be

- Willing to participate in the study
- Those who are available during the time of data collection.

EXCLUSIVE CRITERIA:

- Nursing officers who are not available at the time of data collection

SELECTION AND DEVELOPMENT OF TOOL

An instrument is a device or technique that a researcher used to collect data based on the research problem and the objectives of the study[17]

The following steps are taken tool.

Structured Knowledge Questionnaire is developed to collect data which consists of the following sections.

Section –A: Socio demographic Performa

It consists of age, gender, educational status, total year of experience, clinical area posted / allotted, undergone training on nursing management of CKD, how long have you worked in caring patients with CKD

Section-B: It consists of Structured Knowledge Questionnaire includes

- Questions related to general information on CKD.
- Questions related to information specific to Definition, Causes & signs & symptom, Pathophysiology,
- Questions related to prevention, management of CKD patients and Complications & its management.
- Questions related to nursing care management including Life style modification

SCORING

The total Structure Knowledge Questionnaire had 42

The Structure Knowledge Questionnaire **had 42 items.** Each **c**orrect response had a score of "1," wrong response was scored with zero. Each multiple-choice question has four possible answers. The interpretation of the level of knowledge was graded as:

Sl. No	Knowledge scores	Score range
1	Inadequate knowledge	≤50% (≤21)
2	Moderately adequate knowledge	51-75% (22-31)
3	Adequate knowledge	>76% (32-42)

ESTABLISHING CONTENT VALIDITY AND RELIABILITY OF THE TOOL:

VALIDITY:

Content validity refers to which a measuring instrument provides adequate coverage of the topic under the study.

The fallowing methods were used to test the content validity of the tool. The prepared tool along with the statement of the problem, objectives, to 10 experts from the field of Medical Surgical Nursing speciality (8), & professors of medicine (2).

RELIABILITY

The reliability is defined as the degree of consistency or dependability with which an instrument measures the attribute it is designed to measure16.

The tool was admitted to 20 nursing officers. In order to establish reliability of the tool, the split half technique using Spearman's Brown Prophecy (annexure-0) formula was used. The obtained values of reliability by using spearman's brown prophecy formula is r = 0.86. So the Structure Knowledge Questionnaire found to be reliable.

ITEM ANALYSIS

To determine the effectiveness of each test item by examining the subject's response to the item, item analysis was done for the structured knowledge questionnaires on CKD management along with the reliability test. The difficulty value index (D.V.) was estimated for all the questions and interpreted appropriately. Only a small number of questions were determined to be challenging, and those questions were changed. For those items to have the necessary level of difficulty and discrimination index, the language has to be streamlined.

ETHICAL CONSIDERATION:

The formal ethical permission was obtained from the Institutional Ethics Committee. The permission for conducting the research was obtained from Medical Superintendent of RLJH & RC. Written informed consent was obtained from the study subjects and reassurance of confidentiality of information was given to the study participants.

PILOT STUDY:

The pilot study, which had a sample size requirement of 20 nursing officers, was carried out in the month of April 2023 the study was conducted in other setting as Hope Health Clinic. The concerned authorities gave the investigator official written consent. Participants' took 30- 35 minutes to answer the Structured Knowledge questionnaires The findings of the pilot study revealed that, the tool developed , the statistical methods adopted for study analysis is found to be suitable and the sample selection is feasible.

METHOD OF DATA COLLECTION

The data was collected from nursing officers

1. Preparatory phase:

Ethical clearance was obtained from institutional ethical committee of Sri Devaraj Urs College of Nursing. A formal written permission was obtained from medical superintendent R L Jalappa Hospital & R C, Tamaka, Kolar. It is 1205 bedded multispecialty tertiary referral medical teaching hospital. A total 350 beds are exclusively allotted for Medical Surgical wards.

2. Data Collection phase

The investigator introduced him to the nursing officers and explained the purpose of the study then an informed consent was obtained from participants. First sociodemographic variables were collected then Structured Knowledge Questioners was administered to all the study participants.

PLAN FOR DATA ANALYSIS

Data analysis is the schematic organization of research data and the setting of research hypothesis using the data.

The following steps are planned:

- Data was organized on master sheet.
- Socio demographic data were analyzed in terms of frequency and percentage.
- Calculation mean, standard deviation and mean percentage of knowledge scores were done.
- Association of selected demographic variables with knowledge scores was analyzes by chi-square test.

The pilot study findings of the pilot study revealed the feasibility of the sample, setting and the statistical data are relevant to proceed for the main study.

SUMMARY

This chapter dealt with the methodology adopted for the present study. It included research approach, research design, variables under study, research setting, population, sample, sampling technique, development of the data collection tools, description of tools, determining validity and reliability, pilot study, procedure of data collection and the plan for data analysis

CHAPTER IV

ANALYSIS AND INTERPRETATION

This chapter highlights on the analysis and interpretation of data collected from the 200 Nursing officers working at R.L. Jalappa, hospital and research center. Tamaka, Kolar in order to assess the knowledge regarding Chronic Kidney Management. The data collected from the Nursing officers, and interpreted by using descriptive and Inferential statistics.

The data collected was analyzed based on the following objectives of the study:

1. To assess the level of Knowledge regarding CKD management among Nursing officers by using Structured Knowledge Questionnaire.

2. To determine the association between Knowledge scores with selected socio demographic variables of Nursing officers.

3.

ORGANIZATION OF FINDINGS

The analyzed data is organized and presented under the following sections based on objectives.

Section 1:

Description of frequency and percentage distribution of the Nursing officers according to the demographic variables.

Section 2:

Deals with the pertaining to the first objective of the study, which is assess the level of knowledge regarding CKD management among Nursing officers by using Structured Knowledge Questionnaire.

- Overall level of knowledge.
- Area wise level of knowledge

Section 3:

This section delas with the finding related to the second objective of the study regarding association between the knowledge with selected socio demographic variables of samples.

Section A: Socio Demographic Proforma

Table 1: Distribution of baseline characteristics in terms of frequency and percentage

N = 200

Sl.no	Sample characteristic	Frequency (f)	Percentage (%)
1.	**Age (in Years)**		
	21-30	119	**59.5%**
	31-40	46	23%
	>40	35	17.5%
2.	**Gender**		
	Male	137	**68.50%**
	Female	63	31.50%
3.	**Educational status**		
	GNM	56	28%
	BSC(N)	70	35%
	PBBSC(N)	72	36%
	MSC(N)	2	1%
4.	**Total year of experience**		
	<1 year	24	12%
	1-2 years	15	7.50%
	2-3years	26	13%
	>3years	135	67.50%
5.	**Clinical**		
	EMD	30	15%

	Internal	50	25%
	Nephrology	21	10.50%
	Others	99	**49.50%**
6.	**Undergone training**		
	Yes	58	29%
	No	142	**71%**
7.	how long		
	< 1 year	99	**49.50%**
	2-5 years	48	24%
	6-10 years	22	11%
	>10 years	31	15.50%

1. AGE

With regards to age majority 59.5% (119) of the study sample were between the age group of 21-30 years, 23% (46) of them belongs to the age group of 31-40 years and 17.5%(35) of them belongs to the age group of >40years.

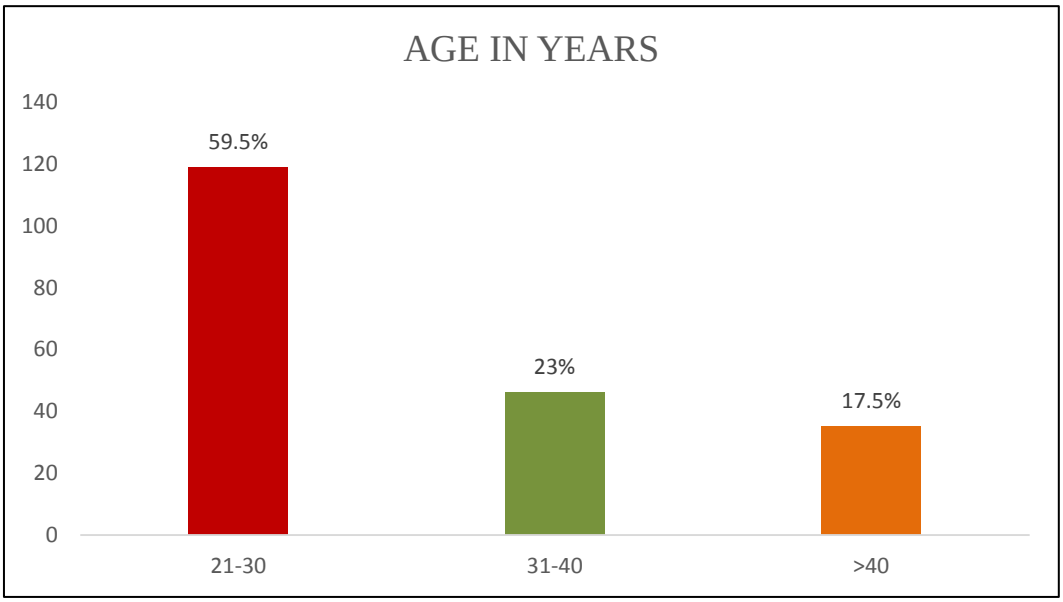


Fig.4 Distribution of Nursing officers according to the Age in year.

2.GENDER

With regards to gender majority 68.50%(137)males, and 31.50% (63)were Females

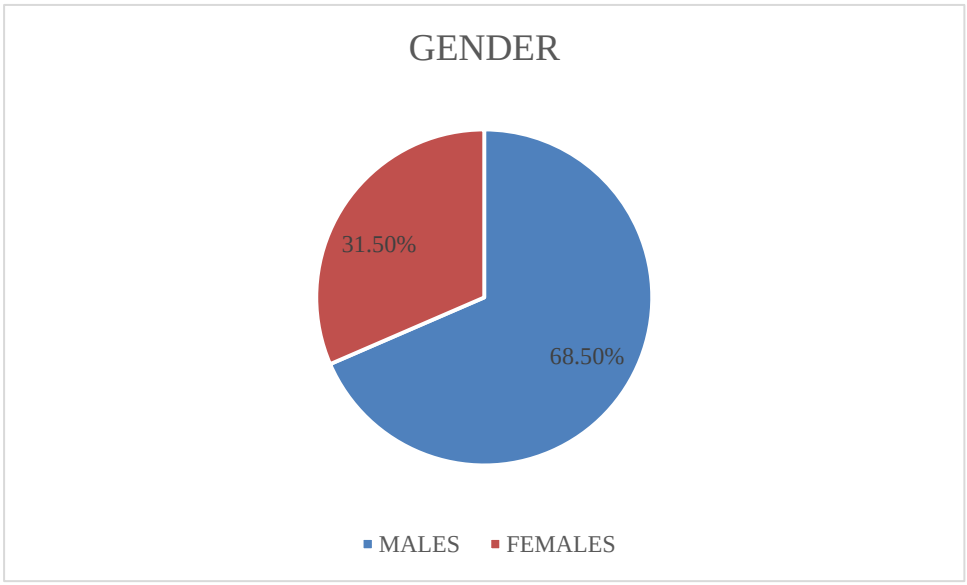


Fig.5 Distribution of Nursing officers according to the gender.

3. EDUCATIONAL STATUS

With regards to the educational status GNM 28%(56) Bsc(N) 35%(70) PBBSc(N) 36% (72)and MSc((N)1%(2)

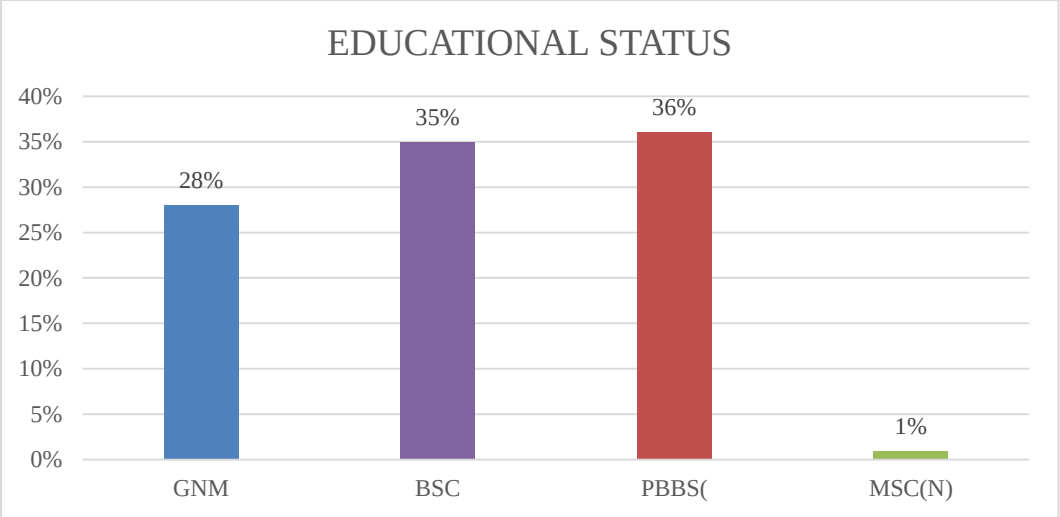


Fig.6. Distribution of Nursing officers according to their educational status.

4. TOTAL YEARS OF EXPERIENCE

With regards to the years of experience <1year (12%), 1-2 Years (7.50%), 2-3years (13%), and >3years (67.50%)

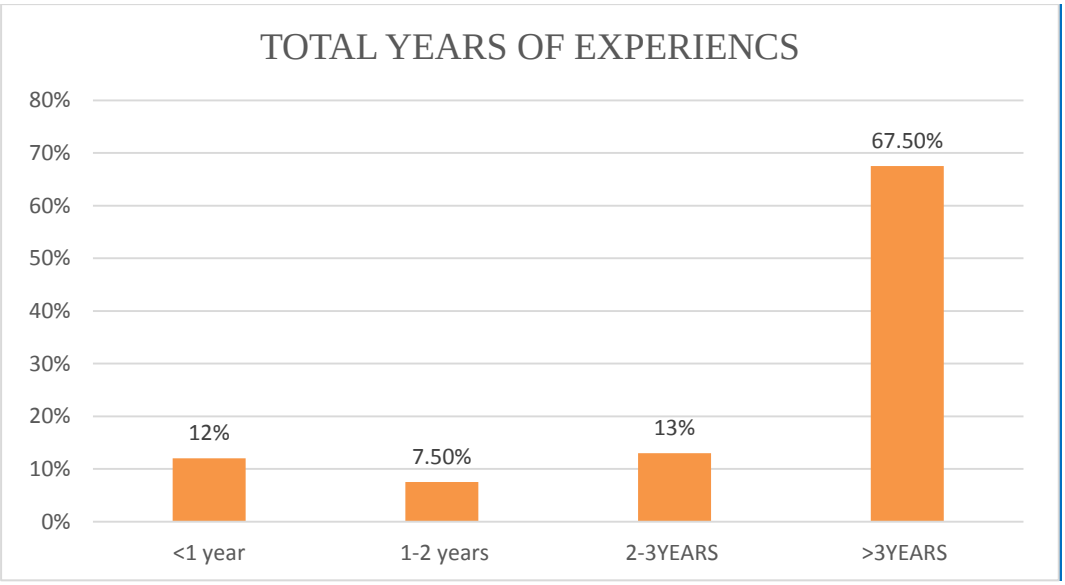


Fig.7 Distribution of Nursing officers according to there total years of experience

5. CLINICA AREA POSTED/ALLOTED

With regards to the clinical area posted/allotted 15% are posted in EMD, 25% are posted in INTERNAL MEDICINE, 10.50% are posted in NEPHROLOGY, 49.50% are posted in OTHERS of the wards.

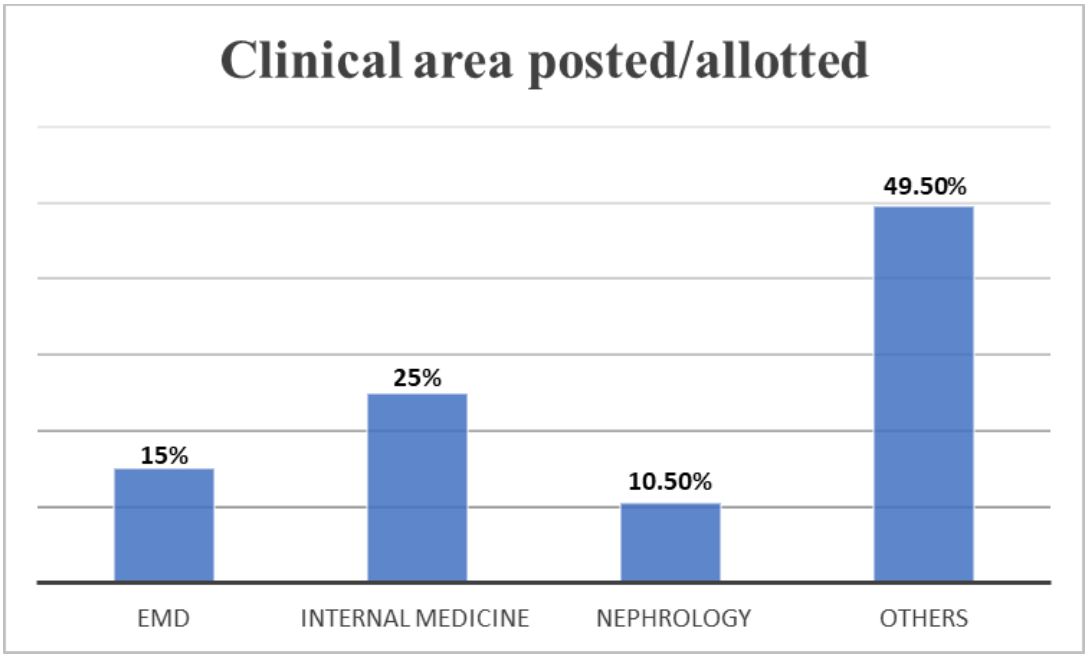


Fig.8 distribution of nursing officers according there clinical area posted/allotted.

6. UNDERGONE TRAINING WITH THE 6 MONTHS OF DURATION

With regards to the undergone training with the 6 months of duration 30%officers are undergone training , and 70% officers are have not under gone any training programme.

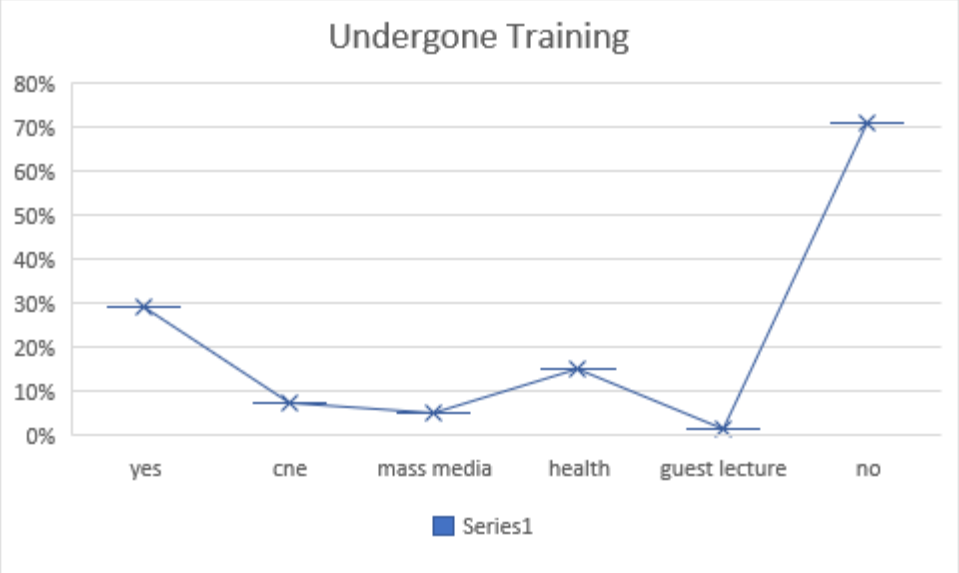


Fig. 9 distribution of nursing officers according there undergone training with the 6 months of duration.

7. HOW LONG HAVE YOU WORKED IN CARING PATIENTS WITH CKD

With regards to the caring patients with CKD <1 year (49.50%) 2-5 years (24%) 6-10yeras (11%) more than 10 years 15.50%.

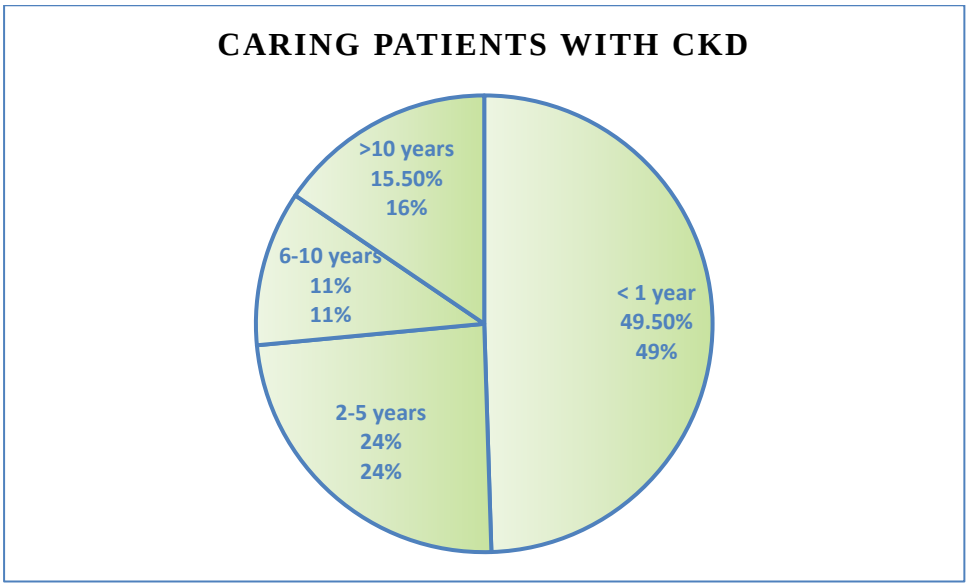


Fig. 10 distribution of nursing officers according to the caring patients with CKD

Section II This Section deals with the data pertaining to the first objective of the study.

Table 2: - distribution of samples according to overall level of knowledge on CKD management among Nursing officers

N=200

Aspect	Knowledge scores	Score range	Frequency	Percentage
Knowledge Level	Inadequate knowledge	≤50% (≤21)	77	38.6%
	Moderately adequate knowledge	51-75% (22-31)	118	58.66%
	Adequate knowledge	>76% (32-42)	5	2.66%

Table 2. Shows distribution of sample overall knowledge on CKD management.

The above table and diagram show that majority 58.66% (118) of the samples had level of moderate knowledge, and 38.6% (77) samples had level of inadequate Knowledge, 2.66% (5) samples had level of adequate Knowledge.

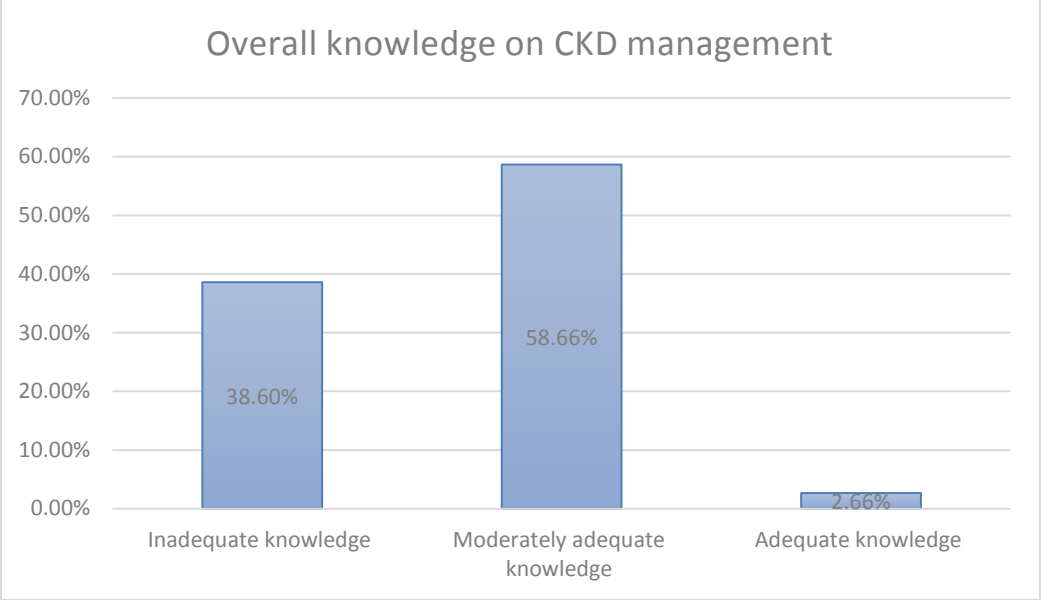


Fig.11 Distribution of Nursing officers according to overall knowledge on CKD management

Table 3 Area distribution of Knowledge score of CKD management among Nursing officers

N-200

SI. No	Variables	No. of items	Max. score	Range	Mean	SD	Mean%
1	General Information on CKD	3	3	0-3	2.42	0.69	80.6%
2	Definition	13	13	2-11	8.69	3.89	64.53%
3	Causes	3	3	0-3	2.23	0.911	74.33%
4.	Sings & symptoms	9	9	3-6	6.18	1.76	68.66%
5.	Pathophysiology	8	8	1-7	5.24	1.54	58.93%
6.	Management & complications	6	6	0-6	5.24	1.72	50.33%

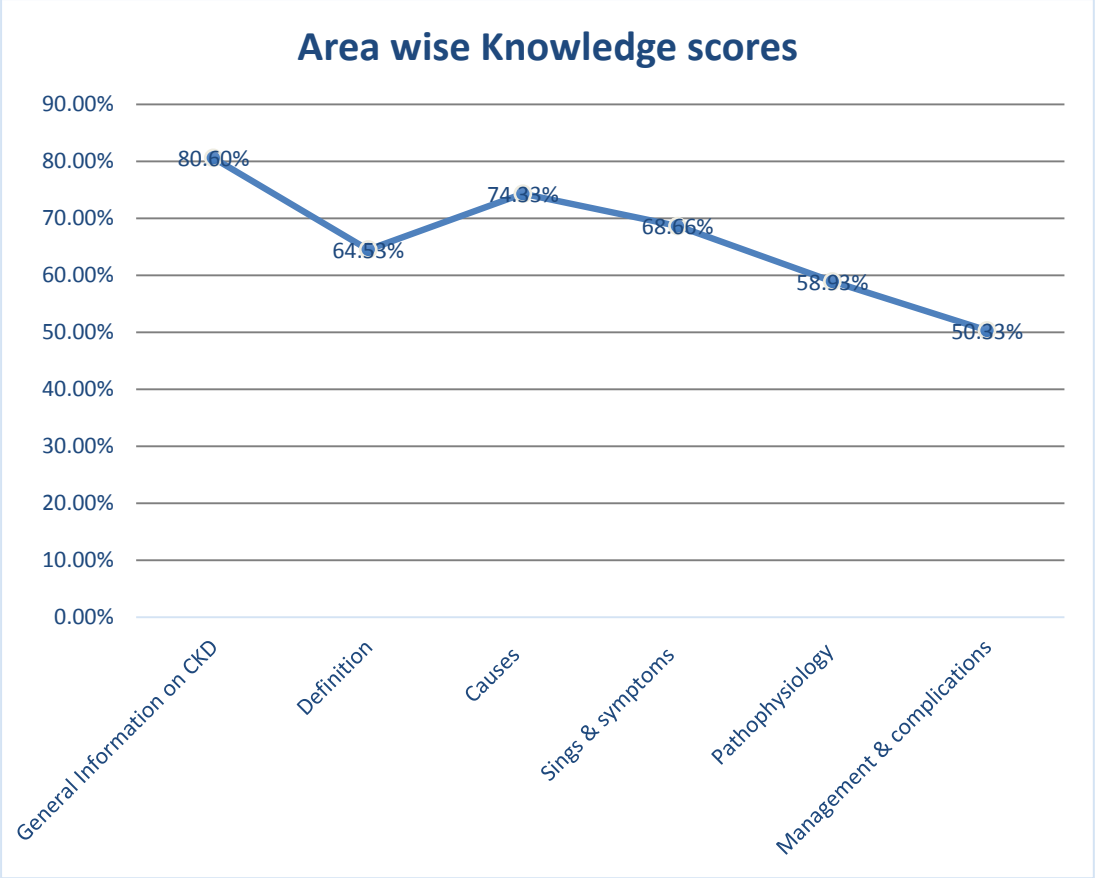


Fig12. distribution on area wise Knowledge scores on nursing officer

SECTION: 3

Table 4: ASSOCIATION OF KNOWLEDGE SCORES OF NURSING OFFICERS WITH SELECTED DEMOGRAPHIC VARIABLES

N-200

Sl.no	Variables	Below Median <50	Median and above ≥ 50	Chi square	Df.	P value (0.05)	Inference
1	**Age (in Years)**						
	21-30	58	61	χ^2 1.2545	2	.53405	NS at p < .05
	31-40	26	20				
	>40	20	15				
2	**Gender**						
	Male	45	92	χ^2 0.2578	1	.611645	NS at p < .05
	Female	23	40				
3	**Educational status**						
	DIPLOMA/GNM	26	20	0.00081 (Fisher exact test)	3	-	NS at p < .05
	BSC	25	45				
	PBBSC	32	40				
	MSC	1	1				
4	**Total year of experience**						
	<1 year	24	20	χ^2 8.037.	2	.01798	SS at p < .05
	1-3 years	19	22				
	>3years	80	35				

5	**Clinical area posted**						
	EMD	10	20	6.1185	3	.105986	NS at p < .05
	Internal	30	20				
	Nephrology	11	10				
	Others	44	55				
6	**Undergone training on nursing management of CKD**						
	Yes	26	32	χ^2 0.4947	1	.481817	NS at p < .05
	No	56	86				
7	**How long you have worked in caring patients with CKD**						
	< 1 year	59	40	χ^2 10.5916	3	.014152	SS at p < .05
	2-5 years	15	33				
	6-10 years	10	12				
	>10 years	15	16				

Note: - P<0.05, NS-Not significant, SS-statistically significant, df-degree of freedom,1(3.38), df-2(5.99).

Table-04 shows the association of Knowledge regarding care Chronic Kidney Disease in association with selected socio-demographic data of nursing officers. There were seven selected variables which were tested with the level of knowledge.

With regard to age, there were three groups, 21-30 years, 31-40years and above 40years. The obtained χ^2=1.25 < 5.99 at P= 0.05. Indicates there was "no association" b/w knowledge score with age thus the stated assumption was accepted.

With regard to gender there were two groups, male and female. The obtained chi-square value χ^2 = 0.25< (3.84) at level of 0.05. Instead there was "no significant association" b/w score on knowledge r/t gender. Therefore the stated assumption was accepted.

Qualification of the nursing officers, there were four groups, GNM. B.SC (N), PB. B.Sc.(N) and M.Sc. (N). Here The obtained (fishers exact test value) 0.00081 < 3.84 at level of 0.05. Proves "no association" between scores of knowledge with qualification of nursing officers, Hence, the stated assumption was accepted..

With regard to total year of experience, there were three groups less than one year, 1-3 years and>3years. The obtained (chi-square value)χ^2=8.03 > (7.82) at 0.05 point. Signifying there is a "**significant association"** between knowledge score with total year of experience of nursing officers hence, the stated assumption was rejected.

In relation to area of working there were four groups, EMD, Internal medicine, nephron wards and other wards. The obtained chi-square valueχ^2 = 6.1185 < 7.89 at 0.05 level. This shows the no significant association between knowledge scores and area of working .for this reason accepted the stated assumption.

With regard to under gone training two groups were there,. The obtained chi-square value was 0.49 < 3.84 at 0.05 level. Indicates "no significant association" with knowledge score and training programme. Thus the stated assumption was accepted.

With regard to experience of work in respective wards, there were four groups less than one year, 2-5 years 6-10 years and>10years. The obtained (chi-square value) χ^2=10.59 > (7.82) at 0.05 point. Signifying there is a "**significant association"**

between knowledge score with total year of experience of nursing officers hence, stated assumption was rejected.

SUMMARY

This chapter was dealt with the data analysis and interpretation of the data collected from the Nursing officer's The results of the analysis showed that majority 58.66% (44) of the samples belongs to moderate knowledge and 38.6% (29) samples belongs to inadequate knowledge, 2.66% (2) samples belong to adequate knowledge. The association between knowledge scores with selected socio-demographic variable were assessed and its results revealed that variable like, Gender, Previous experiences/exposure in handling, residences are not statistically significant, were as age is statistically significant.

CHAPTER – 5

SUMMARY AND CONCLUSIONS

This chapter deals with conclusion drawn, implication, limitations, and recommendations.

This study aimed to assess the knowledge regarding CKD management among Nursing officers. A descriptive design was used for the study. The data was collected from 200 Nursing officers by using Structure Knowledge Questionnaire approximately 30 minutes was taken for each Nursing officers to fill questionnaire.

The study was based on the general system health promotion Von Bertalanffy (1968) model it provides a schematic representation of conceptual framework for health promotion of Nursing officers by discussing three functions of client, that were Cognitive perceptual factors (individual perception), Modifying factors (demographic and social), Participation in health behavior. (Likelihood of action) and the major concepts like Individual characteristics, Behavior specific cognitive-perceptual factors and affect, Behavioral outcomes.

The collected data were planned and analyzed by using both descriptive and inferential statistics based on study objectives.

Major findings of the study

Description of socio-demographic variables

Results revealed that majority 90.66% (68) of the study sample were between the age group of 20-22years and 9.33% (7) of them belongs to the age group of 23-25 years. majority 97.4% (73) of the samples were females and 2.66% (2) of them were males.

This section deals with the data pertaining to the first objective of the study assess knowledge on CKD management among Nursing officers. Distribution of samples according to overall level of knowledge.

The overall knowledge score was assessed out of 200 Nursing officers. majority 58.66% (44) of the samples belongs to moderate knowledge and 38.6% (29) samples belongs to inadequate knowledge, 2.66% (2) samples belong to adequate knowledge. there are many studies conducted which supporting to the study.

Area wise level of knowledge

Area wise knowledge score was assessed general information regarding CKD management mean score was 4.42(SD±1.30), definition and types of mean scores was 5.70(SD±1.69), risk factors & causes mean score was 1.90(SD±1.10), sign& symptoms mean score was 1.92(SD±1.01), prevention and complication scores was 1.24(SD±0.927), management mean scores was 4.29(SD±1.9).

This section deals with the data penetrating to the second objective of the study on association between scores with socio demographic variables of samples.

Conclusion

This present study focused on assess the knowledge regarding CKD management among Nursing officers undergoing training at RLJH&RC. Tamaka, Kolar, based on the findings the conclusions are presented under the following.

Based on the objectives of the study conclusion are presented under the following points.

As per the first objective of the study, findings regarding assessment of knowledge regarding CKD management among Nursing officers. The knowledge scores of the Nursing officers 58.66% (44) of the samples belongs to moderate knowledge and 38.6% (29) samples belongs to inadequate knowledge, 2.66% (2) samples belong to adequate knowledge.

Second objective reveals that,

The association of Knowledge regarding care Chronic Kidney Disease in association with selected socio-demographic data of nursing officers. There were seven selected variables which was tested with the level of knowledge. With regard to age, there were three groups, 21-30 years, 31-40years and above 40years. The obtained χ^2=1.25 < 5.99 at P= 0.05. Indicates there was "no association" b/w knowledge score with age thus the stated assumption was accepted. With regard to gender there were two groups, male and female. The obtained chi-square value χ^2 = 0.25< (3.84) at level of 0.05. Instead there was "no significant association" b/w score on knowledge r/t gender. Therefore the stated assumption was accepted. Qualification of the nursing officers, there were four groups, GNM. B.Sc. (N), PB. B.Sc. (N) and M.Sc. (N). Here the obtained (fishers exact test value) 0.00081 < 3.84 at level of 0.05. Proves "no association" between scores of knowledge with qualification of nursing officers, Hence, the stated assumption was accepted..

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IMPLICATIONS

The findings of the study can be used in the following areas of Nursing Profession.

Nursing practice

Nursing officers during clinical practice and working in the hospital as well was in community setup should create awareness about kidney diseases and orient about early symptoms of CKD importance of routine health checkup for early identification of symptoms related to Kidney related health issues.

Nursing education

The study assessed the knowledge on CKD in terms of management of kidney diseases among nursing officers. Based on the study report can recommend the hospital management to organize various training programme like CNE, Seminar panel discussion which enhances the knowledge.

Nursing administration

The Nursing administrator can take a part in developing skill training programmes, modules certificate courses and workshops to enhance the Nursing officers practice and knowledge regarding kidney diseases so that morbidity related CKD can be controlled.

It is an necessary that nursing administrators support initiatives to develop modules and certificate courses delivering in-service training to the Nursing officers. They ought to design and coordinate plans that are economical.

The nursing administrators can conduct seminar programme to the Nursing officers on current practice.

Nursing research

Nursing officers are crucial health care personnel for conducting research and playing a part in CKD management. Nurses who care for individuals in various settings train them about CKD management. Nurses may help design and test interventions for teaching the public about . More study may be conducted by nurses to further identify the relationship between catastrophe kinds and various illnesses. A comparable study might be undertaken as a comparative study between rural and urban communities, as well as a study with a big sample size and diverse age groups to gain an exploratory picture of this issue in our nation.

LIMITATIONS OF THE STUDY

1. The study was limited to the Nursing officers only in selected Hospital. Kolar.
2. The generalization of the study findings is not possible for small number,
3. The study does not have any intervention and assessment of its effectiveness.

RECOMMENDATIONS

- A similar study can be replicated on a large sample in different types of setting.
- A similar study can replicate with a control group.
- An intervention study can be done to assess the effectiveness of in improving the knowledge of Nursing officers regarding CKD.
- A similar study can be done to assess improving the knowledge of Nursing officers regarding CKD.
- A descriptive study could be done on the practice of CKD and it's among Nursing officers.

Summary

This chapter highlighted on overall study findings, implications, limitation, and recommendation of the present study. The present study clearly indicated its importance in the field of nursing practice, administration, education, and research. The researcher had strongly emphasized the necessity to meet with information needs of the Nursing officers which will provide the better outcome of the Nursing officers through gaining knowledge and performance.

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ANNAXURE-A

ETHICAL CLEARANCE COMMITTEE CERTIFICATE

	SRI DEVARAJ URS COLLEGE OF NURSING TAMAKA, KOLAR – 563 103. INSTITUTIONAL ETHICS COMMITTEE	Format No.	IEC 01
		Issue No.	02
		Rev No.	01
		Date	01-09-2018

Ref.:No.SDUCON/IEC/ 104 /2022 **Date: 28/07/2022**

To
Mr. Suresha R S
I year M.Sc Nursing (Med. Surg. Nsg.)
SDUCON,
Tamaka, Kolar-563103

This is to certify that the Institutional Ethics Committee of Sri Devaraj Urs College of Nursing, Tamaka, Kolar has examined and unanimously approved the Topic **"A study to assess the knowledge regarding care of patients diagnosed with chronic kidney diseases among nursing staff working in R.L. Jalappa medical teaching hospital kolar,"** of Mr. Suresha R S, under the guidance of Dr. Zeanath C J, Sri Devaraj Urs College of Nursing.

Member Secretary
MEMBER SECRETARY
ETHICS COMMITTEE
SRI DEVARAJ URS COLLEGE OF NURSING
TAMAKA KOLAR - 563103.

Chairperson
CHAIR PERSON
ETHICS COMMITTEE
SRI DEVARAJ URS COLLEGE OF NURSING
TAMAKA KOLAR - 563103.

ANNEXURE-B

LETTER REQUESTING PERMISSION FOR CONDUCTING RESEARCH STUDY

LETTER REQUESTING PERMISSION FOR CONDUCTING RESEARCH STUDY

From
Mr Suresha R S.
2nd Year M.Sc. Nursing
Sri DevarajUrs College of Nursing
Tamaka, Kolar-563103.

To,
The Medical superintendent
R L J Hospital & RC
S D U H E R
Tamaka, Kolar-563103.

Forwarded Through
Dr.Zeanath C.J & Research Guide
HOD of MSN
CNO at RLJH & RC,
Tamaka, Kolar-563103.

Respected Sir/Madam,

Sub: Requesting Permission for Conducting Research Study-reg.

I Mr. Suresha R S, M.Sc. (N) 2nd Year (Medical Surgical Nursing Specialty) of Sri Devaraj Urs College of Nursing, Tamaka, Kolar. has selected the below mentioned topic for research project, as a partial fulfillment for M.Sc. Nursing Programme.

Title of the topic:

"A study to assess the Knowledge on Nursing Management of Chronic Kidney Disease among Nursing officers working at R. L. Jalappa Hospital, Kolar".

With regard to the above mentioned subject, I kindly request you to grant permission to collect the data for research study from nursing officers working at RLJH & RC, Tamaka, Kolar, So kindly consider this letter and do the needful.

Forwarded
20/6/23
Medical Superintendent
R.L. Jalappa Hospital & Research Centre
Tamaka, Kolar-563103

Thanking You,

Yours faithfully,

Sir, The request of conducting research among Nursing staff may be considered, for needful submission
19/6/2023
Head of the Department
Dept. of Medical Surgical Nursing
Sri Devaraj Urs College of Nursing
(Prof. Zeanath C.J).

ANNEXURE-C

Request for opinion and suggestions of experts for establishing content validity of research

From,
Mr.Suresha R S
II year M.Sc. (N) Student
Sri Devaraj Urs College of Nursing
Tamaka, Kolar – 563101

TO

(Through the proper channel)

Respected Sir/ Madam,

Sub: Request for opinion and suggestions of experts for establishing content validity of research
Tool and Information Booklet-reg.

I **Mr.Suresha R S** postgraduate student (Medical Surgical Nursing Specialty) of Sri Devaraj Urs College of Nursing, Tamaka, Kolar has selected the below mentioned topic for my project, for the fulfillment of Masters of Nursing Degree.

TITLE OF THE TOPIC:

"A study to assess the Knowledge regarding care of patients diagnosed with Chronic Kidney Disease among Nursing officers working in R. L. Jalappa Hospital, Kolar".

With regards to the above may I kindly request you to validate the tool (Structured Interview schedule) and Information Booklet for its appropriateness and relevancy. I am, here with enclosing the objectives of the study, criteria rating scale for your reference. I would be highly obliged and remain thankful for your great help.

Thanking you
Yours Sincerely,
(Mr.Suresha R S.**)**

ANNEXURE-E

CONTENT VALIDITY CERTIFICATE

I hereby certify that I have validated the tool of Mr.Suresha R S. II year M.Sc. (N) student of Sri Devaraj Urs College of Nursing, Tamaka, and Kolar, who is undertaking a research project as a fulfillment of Master of Science in nursing degree on:

"A study to assess the Knowledge regarding care of patients diagnosed with Chronic Kidney Disease among Nursing officers working in R. L. Jalappa Hospital, Kolar".

Date: Signature of Expert with

Designation

Place:

Enclosures:

1) Structured Knowledge questioners

STRUCTURED KNOWLEDGE QUESTIONNAIRE ON

CHRONIC KIDNEY DISEASE

Kindly answer to all questions and select appropriate answer to all questions of your choice.

1. Your answer will be kept confidential.
2. Please be free and frank in answering the question.
3. Each correct answer carries one score.

SECTION – A

SOCIO DEMOGRAPIC DATA

1.Age in years_____

2. Gender ()
   a. Male
   b. Female

3. Educational status ()
   a. GNM
   b. BSc (N)
   c. P.B.B. Sc (N)
   d. M.Sc (N)

4. Total Years of Experience ()
   a) <1 year
   b) 1-2 years
   c) 2-3 years
   d) >3years

5.Clinical area posted/allotted ()

a) Emergency medicine department
b) Internal Medicine
c) Nephrology
d) others

6. Undergone Training on nursing management of Chronic Kidney Disease within 6 months of duration. ()

a. Yes
b. No

If yes specify_____

a. CNE
b. Mass media
c. Health professionals
d. Departmental guest lecture

7. How long have you worked in caring patients with chronic kidney diseases? ()

a. Less than 1 year
b. 2 to 5 years
c. 6-10 years
d. More than 10 years

SECTION – B

Questions related to Meaning of kidney

1. The kidney located is in ()
   a. Pelvis cavity
   b. Behind the abdomen cavity
   c. Mediastinum cavity
   d. Thoracic cavity

2. The approximate kidney weight is ()
   a) 100-200 grams
   b) 120-150 grams
   c) 300-400 grams
   d) > 500 grams

3. The main function of the kidney is ()
   a) Formation of urine
   b) Formation of blood cells
   c) Formation blood
   d) Formation of bone

Questions related to causes risk factors &pathophysiology

4. The functional unit of the kidney is ()
   a) Neuron
   b) Nephron
   c) Tubules
   d) Follicles

5. The normal serum creatinine level ()
   a) 0.7-1.4 mg/dl
   b) 1.5-2.0 mg/dl
   c) 3.5-5.5 mg/dl
   d) 10.5 -13.5 mg/dl

6. Chronic Kidney Diseaseis a _____ disease ()

a) Communicable disease
b) Blood born disease
c) Non communicable disease
d) Air born disease.

7. The Artificial Kidney in the Hemodialysis is called as ()

a. Filter
b. Dialyzer
c. Chamber
d. None of the above

8. Most common cause of Chronic Kidney Disease ()

a) Diabetes mellitus
b) Hypertriton
c) A & B
d) Lifestyle practice

9. The most Common age group to affected with the Chronic Kidney Disease ()

a) 20 years
b) 30 Years
c) 40 Years
d) >60 Years

10. Diabetes and Hypertension causes _____ % of Chronic Kidney Disease ()

a. 20%
b. 50%
c. 70%
d. 90%

11. The kidneys are responsible for performing all the following functions EXCEPT? ()

a. Activating Vitamin D
b. Secreting Renin
c. Secreting Erythropoietin
d. Maintaining cortisol production

12. A patient with Chronic Kidney Disease has a low erythropoietin (EPO) level. The patient is at risk for ()

a. Hypercalcemia
b. Anemia
c. Blood clots
d. Hyperkalemia

13. A 55 year old male patient is diagnosed with chronic kidney disease. The patient's recent GFRwas 25 mL/min. What stage of chronic kidney disease is this known as ()

a. Stage 1
b. Stage 3
c. Stage 4
d. Stage 5

14. Fallowing are the risk factors of Chronic Kidney Disease EXCEPT ()

a. Family history of Chronic Kidney Disease
b. Kidney stones
c. Urinary tract obstruction
d. Chills & fever

15. The main cause ofChronic Kidney Disease is ()

a. Smoking
b. Obesity
c. Lack of water in the body
d. Kidney stones

16. The most common cause of renal artery stenosis is ()

a. Atherosclerosis
b. Dissection
c. Fibromuscular dysplasia
d. Vasculitis

Questions related to Sings &Symptoms

17. The symptoms of Chronic Kidney Diseases ()

a. Tired and loss of energy
b. Trouble on concentrating
c. Poor appetite
d. All the above

18. Among the following all are the symptoms presented by Chronic Kidney Disease patient EXCEPT ()

a. Sever pain
b. Restless leg syndrome
c. Peripheral neuropathy
d. Good Skin moisture

19. The first warning signs of the Chronic Kidney Diseases ()

a. Fatigue
b. Nauseas & vomiting
c. A & B
d. None of the Above

Questions related to Management of Chronic Kidney Disease

20. The choice of drug injection for anemia correction in the hemodialysis patient is ()

a. Adrenaline
b. Atropine
c. Erythropoietin
d. Avil

21. Hemodialysis can be done in ()

a. Hospital
b. Out of the hospital
c. Dialysis center
d. Home

22. These dietary minerals must be limited for a person on hemodialysis ()

a. Iron
b. Zinc
c. Potassium
d. Sodium

23. These is the fallowing treatment for the renal failure ()

a. Diuretics
b. Drugs lowering blood phosphate level
c. Drugs controlling anemia
d. All the above

24. The best treatment for Chronic Kidney Disease is ()

a. Hemodialysis
b. Peritoneal Dialysis
c. Kidney transplantation
d. Kidney donation

25.The best access point for hemodialysis is ()

a. Jugular catheter
b. Femoral catheter
c. A V fistula
d. Foleys catheter

26. Nonpharmacological management for Chronic Kidney Disease includes ()

a. Daily weighing
b. General health checkup
c. Daily fluid intake limit

d. Proper diet

27. The dialysis procedure includes the fallowing principles except ()
    a. Osmosis
    b. Diffusion
    c. Active transport
    d. Ultra filtration

28. The common drug used during hemodialysis is ()
    a. Heparin
    b. Piptaz
    c. Lomo
    d. Xone

Questions related to Preventable complication of Chronic Kidney Disease

29. The most common complications complication of Chronic Kidney Disease ()
    a. Liver failure
    b. Stomach failure
    c. lungs failure
    d. Heart failure

30. The way you can prevent complications of Chronic Kidney Disease ()
    a. By taking regular medication
    b. By taking regular alcohols
    c. By taking regular stress
    d. By taking more fat rich diet

31. The fallowing type of exercise can prevent complication of Chronic Kidney Disease ()
    a. Heavy exercise
    b. Moderate exercise
    c. Mild exercise
    d. Low exercise

32. The fallowing factors can prevent complications of Chronic Kidney Disease ()

a. Excessive intake of salt
b. Excessive protein intake
c. Excessive carbohydrate intake
d. None of these

33. The preventable complications of irregular heartbeats of Chronic Kidney Disease ()

a. By doing regular checkups
b. By doing regular Hb tests
c. By taking regular alcohol
d. By taking regular fat rich diet

34. The First complication of Chronic Kidney Disease is ()

a. Fluid Retention
b. Joint Pains
c. Fluid loss
d. Low potassium

35. These is the common complication in the Hemodialysis patient ()

a. Fluid loss
b. Anemia
c. Hypokalemia
d. None of the above

36. The common side effect in the Hemodialysis is ()

a. Muscle crams
b. Dizziness
c. Nausea
d. All the above

Questions related to Nursing management of Chronic Kidney Disease

37. During hemodialysis the patient develop light headache & nausea what should the nurse do first ()

a. Administer hypertonic solution.
b. Administer a blood transfusion.
c. Decrease the rate of fluid removal.
d. Administer antiemetic medications.

38. The nurse is caring for a patient with Chronic Kidney Disease after hemodialysis, which patient care action should the nurse delegate to the experimental unlicensed assistive personnel (UAP) ()

a. Asses the patients access site for a thrill &bruit.
b. monitor for signs & symptoms of post dialysis bleeding
c. Check the patient's post dialysis & blood pressure &weight.
d. All the above

39. A patient complains of leg cramps during hemodialysis the nurse should do first ()

a. Reposition the patient.
b. Massage the patient legs
c. Give acetaminophen (Tylenol)
d. Infuse a bolus of normal saline.

40. It should be include in the clients plan of care during dialysis therapy ()

a. Limit the client's visitors
b. Monitor the clients blood pressure
c. Pad the side rails of the bed
d. Keep the patient on NPO status

41. A client with Chronic Kidney Diseaseis receiving hemodialysis three times a week in order toprotect the fistula the nurse should do ()

a. The checking BP in the arm of the fistula
b. Report the loss of a thrill or bruit on thearm with the fistula
c. Maintain a pressure dressing on the shunt
d. Start second IV in the arm with the fistula.

42. Assessing the morning labs on your patient with Chronic Kidney Diseaseyou note the patient's phosphate level is 6.2 mg/dl, as the nurse you except to find the calcium level is to be. ()

a. Elevated
b. Low
c. Normal
d. Same as the phosphate level

ANSWER KEY

1. b
2. b
3. a
4. b
5. a
6. c
7. b
8. c
9. d
10. c
11. d
12. b
13. c
14. d
15. a
16. a
17. d
18. d
19. c
20. c
21. c
22. c
23. d
24. c
25. c
26. c
27. c
28. a
29. d
30. a
31. b
32.d
33. a
34. a
35. b
36. d
37. a
38. d
39. d
40. b
41. c
42. b

Criteria rating scale

Criteria rating scale for validating the content of the Knowledge Questionnaire on Knowledge regarding Nursing Management of Chronic kidney disease.

Respected Sir/Madam,

Kindly go through the content and rate the content in the appropriate columns given and your expert opinion in the remarks column.

SL. NO	Item	Very Relevant	Relevant	Needs Modification	Not Relevant
Section – A Demographic Data					
1	Age				
2	Gender				
3	Educational Qualification				
4	Total year of experience				
5	Clinical area of posted				
6	Undergone training				
7	How long have you worked in caring patients with CKD				
Section – B Structured Knowledge Questionnaire on CKD					
SL NO	**Item**	**Very Relevant**	**Relevant**	**Need Modification**	**Not Relevant**
1					
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3					
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ANNEXURE-F

INFORMED CONSENT FORM

Name of the investigator: **SURESHA R S**
SL_____No._____

Name of the Organization: R.L. Jalapa Hospital & Research Centre attached to Sri Deva raj Urs Medical Collage Tamaka, Kolar

Title of study: "A study to assess the Knowledge regarding care of patients diagnosed with Chronic Kidney Disease among Nursing officers working in R. L. Jalappa Hospital, Kolar".

If you agree to participate in the study, we will collect information as per Performa from you or a person responsible for you or both.

You are invited to take part in this research study. You are being asked to participate in this study because you satisfy our eligibly criteria. The information in the given document is meant to help you decide whether or not to take part Please feel free to ask any queries.

I have read or it has been read and explained to me in my own language. I have understood the purpose of this study, the nature of information that will be collected and disclosed during the study. I had the opportunity to ask questions and the same has been answered to my satisfaction. I understand that I remain free to withdraw from this study at any time and this will not change my future care. I the undersigned agree to participate in this study and authorize the collection and disclosure of my personal information for presentation and publication.

Nursing Officers/ signature Date:

Person obtaining consent and his/her signature: Date:

Principal investigator signature Date:

For any clarification you are free to contact the investigator:

Principal Investigator Suresh RS Contact No.

ANNEXURE-G

EXPERTS ADDRESS

Dr.G. Vijayalakshmi
Principal of SDUCON.
Tamaka, kolar-563103.

Dr. Malathi.K.V
Prof & HoD
Community Health Nursing.
SDUCON.
Tamaka, kolar-563103.

Prof. Jairakini Aruna
HOD of MHN
SDUCON.
Tamaka, Kolar.

Dr. B N Raghavendra prasad.
Associate professor.
Department of General Medicine.
RLJH&RC
Tamaka, kolar.

Dr. Praveen.
Assistant professor.
Department of General Medicine.
RLJH&RC
Tamaka, Kolar.

Mrs. Punitha
Prof& HoD
Department of OBG Nursing
SDUCON.
Tamaka, kolar.

Mrs. Gayathri.K.V
Associate professor
Department of OBG Nursing.
SDUCON.
Tamaka, Kolar.

Mrs. Vani R.
Assistant professor.
Community Health Nursing.
SDUCON.
Tamaka, kolar.

Mrs. Uma
Assistant professor
Medical Surgical Nursing.
SDUCON
Tamaka, Kolar

Mrs. Jabamani.
Dept Nursing Superintendent-RLJH&RC
Nursing Tutor -SDUCON
Tamaka, Kolar

ANNEXURE –H

CERTIFICATE FROM STATISTICS.

ANNEXURE –H

CERTIFICATE FROM STATISTICS.

I hereby certify that I have provided statistical guidance in analysis to Mr. suresha R S, II year M.Sc nursing student, for her research study titled as **"A study to assess the Knowledge on Nursing Management of Chronic Kidney Disease among Nursing officers working at R.L.Jalappa Hospital and Research Center. Kolar,**

Date:

Place:

Signature of the Statistician

Name & Designation

S. RAVISHANKAR
Lect./Assit. Professor,
Dept. of Community Medicine,
Sri Devaraj Urs Medical College,
Tamaka, Kolar 563101

PHOTOS

S.N.	1	2	3	4	5	6	7	8	9	10	T	11	12	13	14	15	16	17	18	19	20	21	22	23	T	24	25	26	T	27	28	29	30	31	32	33	34	35	T	36	37	38	39	40	41	42	T	43	44	45	46	47	48	49	T	OT
1	24	b	D	C	A	B	A	1	1	1	**3**	1	1	1	1	1	1	1	1	1	1	1	1	1	**13**	1	1	1	**3**	1	1	1	1	1	1	1	1	1	**9**	1	1	1	1	1	1	1	**7**	1	1	1	1	1	1	1	**7**	**42**
2	30	A	D	D	B	C	B	1	1	1	**3**	1	0	1	1	1	1	1	1	1	1	1	1	1	**12**	1	1	1	**3**	1	1	1	0	1	1	1	1	1	**8**	1	1	1	1	1	1	1	**7**	1	1	1	1	1	1	1	**7**	**40**
3	41	A	C	D	A	B	A	1	1	1	**3**	1	0	0	1	1	0	0	0	0	0	0	0	1	**4**	0	0	1	**1**	1	1	0	0	1	1	0	0	1	**5**	1	1	1	0	1	1	1	**6**	0	1	1	0	0	0	0	**2**	**21**
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185	30	B	C	D	D	B	a	1	1	1	**3**	1	1	1	1	0	0	0	0	0	0	1	0	1	**6**	0	1	1	**2**	1	1	0	0	0	1	0	1	1	**5**	1	1	0	1	1	1	1	**6**	1	0	0	1	0	0	0	**2**	**24**
186	47	B	C	D	D	B	a	1	1	1	**3**	1	1	1	1	0	1	1	1	0	0	1	0	1	**9**	1	1	1	**3**	1	1	0	0	0	1	0	0	1	**4**	1	1	1	0	1	0	1	**5**	0	0	0	1	0	0	0	**1**	**25**
187	26	B	B	D	A	C	b	1	1	1	**3**	1	1	1	1	1	1	1	1	1	1	1	1	1	**13**	1	1	1	**3**	1	1	0	1	1	1	1	0	1	**7**	1	1	1	1	1	0	1	**6**	1	1	1	1	1	1	1	**7**	**39**
188	25	B	C	D	D	A	d	1	1	1	**3**	1	0	1	0	1	0	0	1	0	0	1	0	0	**5**	1	1	1	**3**	1	1	0	1	0	1	1	0	1	**6**	1	1	1	0	1	1	1	**6**	0	1	0	0	0	0	0	**1**	**24**
189	25	B	B	C	A	A	b	0	1	1	**2**	1	1	1	1	1	0	0	0	0	0	1	1	0	**7**	0	1	0	**1**	1	1	1	1	1	1	0	0	1	**7**	0	1	1	0	1	0	1	**4**	0	1	0	0	1	1	1	**4**	**25**
190	30	A	C	C	C	B	c	1	1	1	**3**	1	0	1	1	0	0	0	1	1	1	0	0	0	**6**	0	0	1	**1**	1	1	1	0	1	0	1	0	1	**6**	0	1	1	0	0	0	0	**2**	0	0	0	0	1	0	0	**1**	**19**
191	35	B	A	D	C	C	b	1	0	1	**2**	1	1	1	1	1	1	0	0	1	1	1	0	1	**10**	1	1	1	**3**	1	0	0	1	1	1	0	0	1	**5**	1	1	0	1	1	1	1	**6**	0	1	0	1	0	1	1	**4**	**30**
192	24	A	B	B	D	B	b	1	1	1	**3**	1	0	1	1	1	0	0	0	1	1	1	1	1	**9**	1	1	1	**3**	1	1	1	1	1	1	1	1	1	**9**	1	1	1	1	1	0	1	**6**	1	1	1	1	1	1	1	**7**	**37**
193	47	B	C	D	D	B	a	1	1	1	**3**	1	1	1	1	0	1	1	1	0	0	1	0	1	**9**	1	1	1	**3**	1	1	0	0	0	1	0	0	1	**4**	1	1	1	0	1	0	1	**5**	0	0	0	1	0	0	0	**1**	**25**
194	26	B	B	D	A	C	b	1	1	1	**3**	1	1	1	1	1	1	1	1	1	1	1	1	1	**13**	1	1	1	**3**	1	1	0	1	1	1	1	0	1	**7**	1	1	1	1	1	0	1	**6**	1	1	1	1	1	1	1	**7**	**39**
195	25	B	C	D	D	A	d	1	1	1	**3**	1	0	1	0	1	0	0	1	0	0	1	0	0	**5**	1	1	1	**3**	1	1	0	1	0	1	1	0	1	**6**	1	1	1	0	1	1	1	**6**	0	1	0	0	0	0	0	**1**	**24**
196	25	B	B	C	A	A	b	0	1	1	**2**	1	1	1	1	1	0	0	0	0	0	1	1	0	**7**	0	1	0	**1**	1	1	1	1	1	1	0	0	1	**7**	0	1	1	0	1	0	1	**4**	0	1	0	0	1	1	1	**4**	**25**

197	30	A	C	C	C	B	c	1	1	1	**3**	1	0	1	1	0	0	0	1	1	1	0	0	0	**6**	0	0	1	**1**	1	1	1	0	1	0	1	0	1	**6**	0	1	1	0	0	0	0	**2**	0	0	0	0	1	0	0	**1**	**19**
198	35	B	A	D	C	C	b	1	0	1	**2**	1	1	1	1	1	1	0	0	1	1	1	0	1	**10**	1	1	1	**3**	1	0	0	1	1	1	0	0	1	**5**	1	1	0	1	1	1	1	**6**	0	1	0	1	0	1	1	**4**	**30**
199	24	A	B	B	D	B	b	1	1	1	**3**	1	0	1	1	1	0	0	0	1	1	1	1	1	**9**	1	1	1	**3**	1	1	1	1	1	1	1	1	1	**9**	1	1	1	1	1	0	1	**6**	1	1	1	1	1	1	1	**7**	**37**
200	47	B	C	d	d	b	a	1	1	1	**3**	1	1	1	1	0	1	1	1	0	0	1	0	1	**9**	1	1	1	**3**	1	1	0	0	0	1	0	0	1	**4**	1	1	1	0	1	0	1	**5**	0	0	0	1	0	0	0	**1**	**25**