A Descriptive Study To Assess The Knowledge Regarding Diet In Kidney Stone Among Nursing Students In Selected Nursing Collage At Nagpur City

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Abstract: The doctor of the future will no longer treat the human frame with drugs, but rather will cure and prevent disease with nutrition.
Life is a dynamic process. It starts from birth and ends into death. In between, we are passing different stages of life with different diseases and problems.
Methodology: - The descriptive study was conducted on 100 nursing student at selected nursing colleges of Nagpur district. In this study non-probability convenient sampling - structured questionnaire used as sampling technique. The study was conducted using a descriptive survey research design.
Conclusion: The study was done by using the tool self-structured questionnaire to assess the knowledge regarding diet in kidney stone among nursing students.
The study reveals that knowledge regarding diet in kidney stone among nursing students ,6 nursing students had poor knowledge, 54 nursing students had average knowledge and 40 nursing students had good knowledge .
Chi-square test is used to assess the significant association between demographic variables that is course and not significant association between demographic variables that is age, gender, religion, dietary pattern, type of family, amount of water intake, source of awareness.
Result: The study revealed that knowledge regarding diet in kidney stone among nursing students in which 6% (6) of nursing students have poor knowledge, 54% (54) of nursing students have average knowledge, 40% (40) of nursing students have good knowledge.

INTRODUCTION

Renal stone disease is a crystal concretion formed usually within the kidneys. It is an increasing urological disorder of human health, affecting about 12% of the world population and it has also been associated with an increased risk of end-stage renal failure. Renal stones form when compounds in the urine aggregate into a solid mass. Renal stones form in the kidneys as a result of precipitation of urinary constituents and may develop in one or both the kidneys. The lifetime risk of urinary stone disease is 12% in males and 6% in females and the prevalence of the condition is increasing, resulting in approximately 12,000 hospital admissions every year. Renal stone disease is a considerable burden on public health worldwide. Kidney stones can cause extreme pain and urinary blockage in severe cases.3

BACKGROUND OF STUDY

Globally, kidney stone disease prevalence and recurrence rates are increasing, with limited options with effective drugs. Urolithiasis affects about 12% of the world population at some stage in their lifetime. It affects all ages, sexes and races but occurs more frequently in men than in women within the age of 20-49 years. If patients do not apply meta phylaxis, the relapsing rate of secondary stone formations is estimated to be 10-23% per year, 50% in 5-10 years, and 75% in 20 years of the patient. However, lifetime recurrence rate is higher in males, although the incidence of nephrolithiasis is growing among females. Therefore, prophylactic management is of great importance to manage urolithiasis.6

MATERIALS AND METHODS

PROBLEM STATEMENT: "A descriptive study to assess the knowledge regarding diet in kidney stone among nursing students of selected nursing college at Nagpur city.

OBJECTIVE:

1. To assess the knowledge regarding diet in kidney stone among nursing students.
2. To associate the knowledge regarding diet in kidney stone among nursing students with their selected demographic variables.

RESEARCH DESIGN: non experimental descriptive research design
VARIABLES : research variable – awareness regarding diet in kidney stone
SETTING OF THE STUDY: selected colleges at Nagpur city
POPULATION:
TARGET POPULATION: -

The target population consist of nursing students of selected nursing college at Nagpur city.

ACCESSIBLE POPULATION: -

Accessible population consist of nursing students of selected nursing college.

SETTING OF THE STUDY: -

Nursing students of age group 17 years and 53 years above are selected. The sample were drawn from the selected nursing college. They were selected by non-probability sampling technique.

POPULATION: -

It is the aggregation of all the units in which a researcher is interested. In other words, population is the set of people or entities to which the result of a researcher are to be generalized. The population consist of nursing students with the age group of between 17 years to 53 years and above.

SAMPLING TECHNIQUE: -

The subjects were selected by using non-probability systematic sampling technique.

SAMPLE SIZE: -

In this study, sample size consist of 100 nursing students.

CRITERIA FOR SAMPLE SELECTION: -

Sampling criteria is the list of characteristics of the element that we have determined before and that are essential for eligibility to form part of the sample.

INCLUSION CRITERIA: -

Inclusion criterions are the characteristics that the prospective subject must have if they are to be included in the study.50 Following are the inclusion criteria of the study.

Nursing students of age group 17 to 53 years and above.

Nursing students who are willing to participate in study.

EXCLUSION CRITERIA: -

Exclusion criterions are those characteristics that disqualified prospective subject from inclusion in the study.51 Following are the exclusion criteria of the study.

Nursing students who are not available at the time of data collection.

Nursing students who have studied about kidney stone in their syllabus.

Nursing students who are not in the age that is less than 17 years

METHOD FOR DATA ANALYSIS:

Data regarding knowledge of diet in kidney stones of selected nursing students will be recorded by structured questionnaire

RESULT:

The collected data is analysed on the basis of the objective of the study in the following ways:

Section 1: description on frequency and percentage wise distribution of the baseline data

Section 2: description of the score of knowledge regarding diet in kidney stone among nursing students

Section 3: Description on frequency mean and per cent of knowledge regarding diet in kidney stone among nursing students

Chi square test is used to find out the association between demographic variables and knowledge regarding diet in kidney stone among nursing students.

Name of Method of Analysis: Chi-square test is used.

SECTION - 1

DESCRIPTION OF THE BASELINE VARIABLES

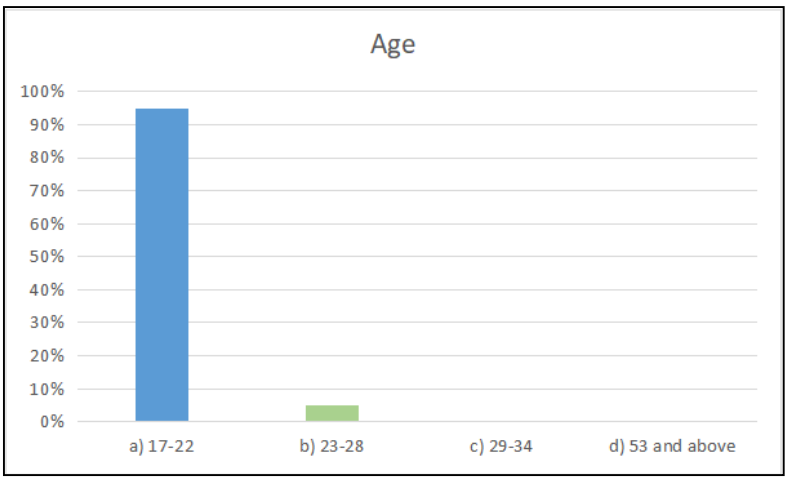
Table no. 1: Frequency and percentage of baseline variable: (n = 100)

Sr. No.	Questions	Frequency	Percentage
Sr. no	Demographic variables	Frequency	Percentage
1	**Age**		
	a) 17-22	95	95%
	b) 23-28	5	5%
	c) 29-34	0	0%
	d) 53 and above	0	0%
2	**Gender**		
	a) Male	29	29%
	b) Female	71	71%
	c) Transgender	0	0%
3	**Religion**		
	a) Hindu	69	69%
	b) Christian	2	2%
	c) Muslim	3	3%
	d) Other	26	26%
4	**Course**		
	a) B.BSc. Nursing	60	60%
	a) General Nursing and Midwifery	40	40%
	c) Auxiliary Nursing Midwifery	0	0%

	d) Post BSc. Nursing	0	0%
5	**Dietary Pattern**		
	a) Vegetarian	46	46%
	b) Non-Vegetarian	54	54%
6	**Type of family**		
	a) Joint	35	35%
	b) Nuclear	65	65%
	c) Extended	0	0%
7	**Amount of water intake**		
	a) <2 Ltr	29	29%
	b) >2 Ltr	32	32%
	c) 5 Ltr	24	24%
	d) >5 Ltr	15	15%
8	**Source of awareness**		
	a) News paper/Magazine	14	14%
	b) Radio/Television	11	11%
	c) Family friends	18	18%
	d) Social media	48	48%
	e) Other	9	9%

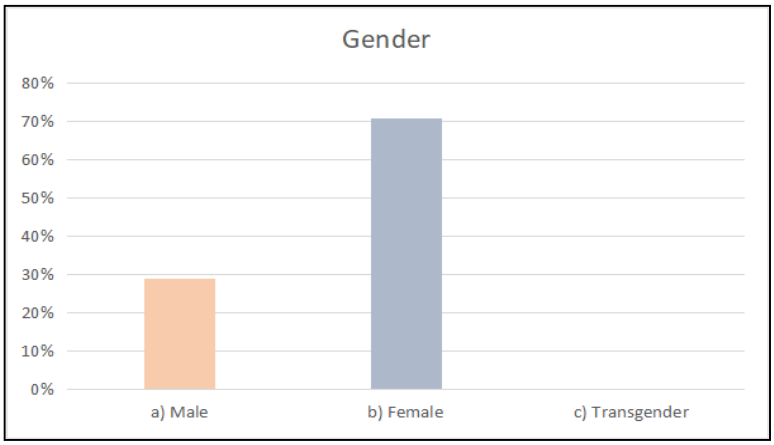
Table no.1 showing distribution of demographic variable

1. AGE



Graph 1 Bar diagram showing distribution of subject on the basis of age. Table no. 1 and figure no. 1 shows that 95% (95) of nursing students were aged between 17 - 22 years, 5% (5) of nursing students were aged between 23 - 28 years, 0% (0) of nursing students were aged between 29 - 34 years, 0% (0) of nursing students were aged between 53 and above years.

2 - GENDER



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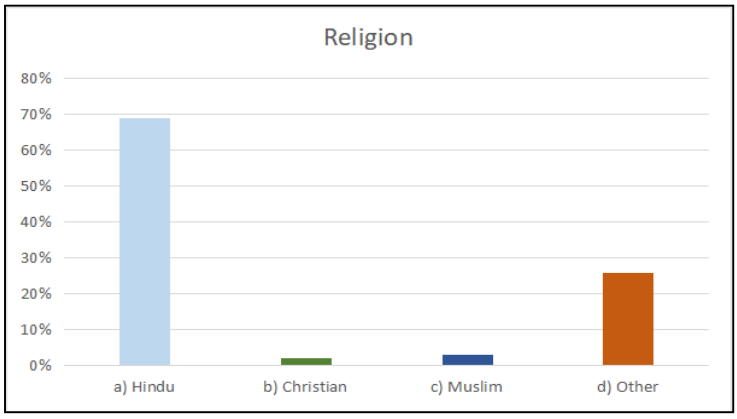
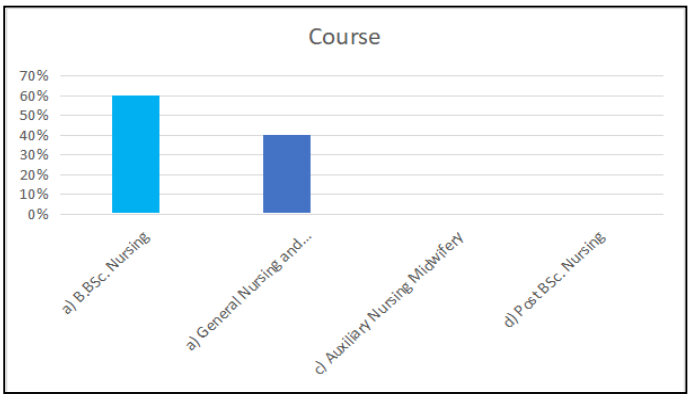
Graph 2 Bar diagram showing distribution of subject on the basis of gender. Table no. 1 and figure no. 2 shows that 29% (29) of nursing students were male, 71% (71) of nursing students were female, 0% (0) of nursing students were transgender.

3 - RELIGION



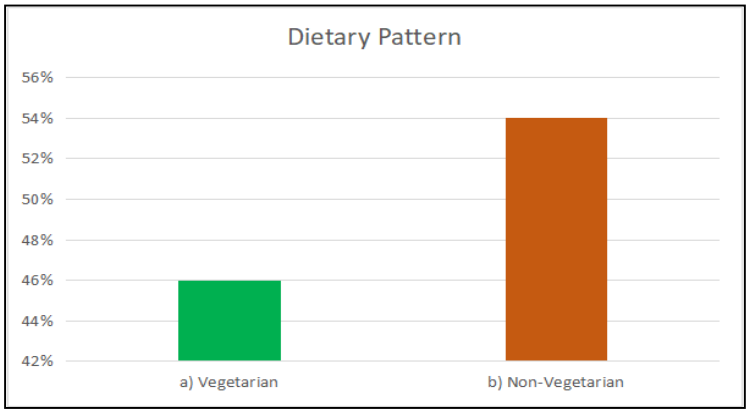
Graph 3 Bar diagram showing distribution of subject on the basis of religion. Table no. 1 and Figure 3 shows that 69% (69) of nursing students were Hindu, 2% (2) of nursing students were Christian, 3% (3) of nursing students were Muslims and 26% (26) of nursing students were belongs to other religion.

4 – COURSE



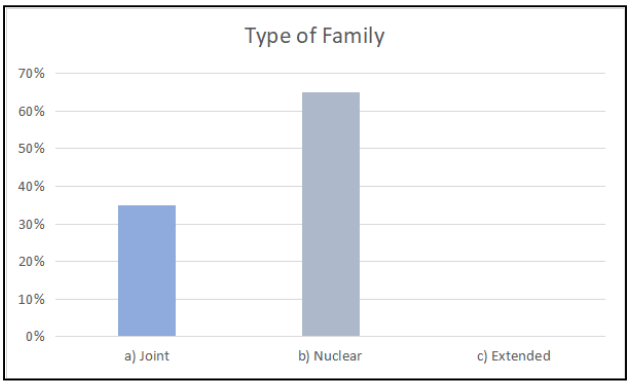
Graph 4 Bar diagram showing distribution of subject on the basis of course. Table no. 1 and Figure 4 shows that 60% (60) of nursing students were from BBSc. Nursing course, 40% (40) of nursing students were from General Nursing and Midwifery course, 0% (0) of nursing students were from Auxiliary Nursing Midwifery, 0% (0) of nursing students were from Post BBSc. Nursing Course.

5 - DIETARY PATTERN



Graph 5 Bar diagram showing distribution of subject on the basis of dietary pattern.
Table no. 1 and Figure 5 shows that 46% (46) of nursing students were vegetarian, 54% (54) of nursing students were non-vegetarian.

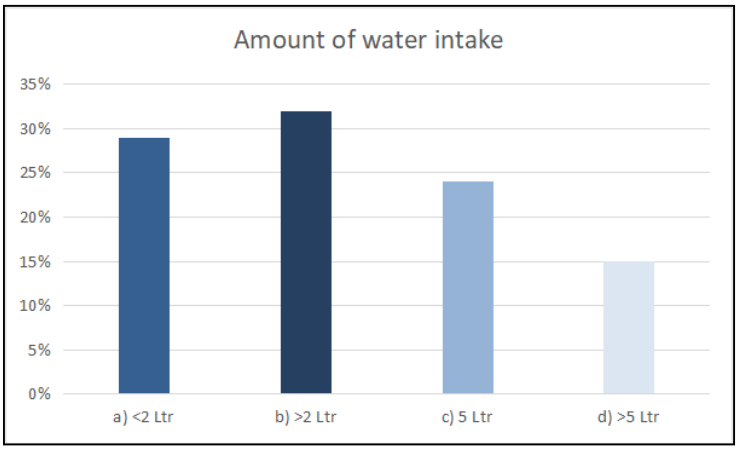
6 - TYPE OF FAMILY



Graph 6 Bar diagram showing distribution of subject on the basis of type of family.

Table no. 1 and Figure 6 shows that 35% (35) of nursing students were living in joint family, 65% (65) of nursing students were living in nuclear family, 0% (0) of nursing students were living in extended family.

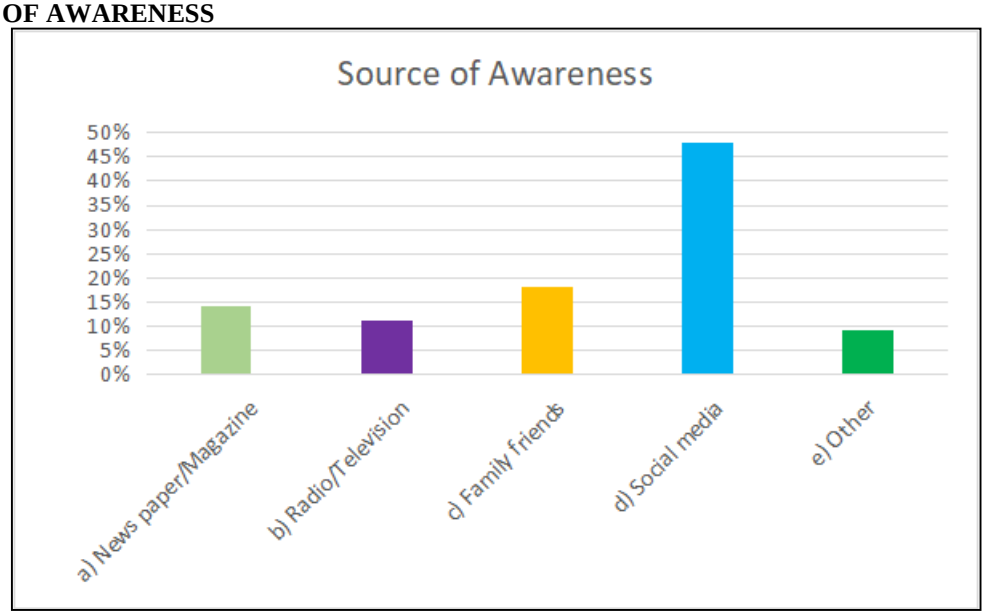
7 - AMOUNT OF WATER INTAKE



Graph 7 Bar diagram showing distribution of subject on the basis of amount of water intake.

Table no. 1 and Figure 7 shows that 29% (29) of nursing students were taking <2 Ltr of water, 32% (32) of nursing students were taking >2 Ltr of water, 24% (24) of nursing students were taking 5 Ltr of water, 15% (15) of nursing students were taking >5 Ltr of water

8 - SOURCE OF AWARENESS



Graph 8 Bar diagram showing distribution of subject on the basis of source of awareness.

Table no. 1 and Figure 8 shows that 14% (14) of nursing students having source of awareness from newspaper/magazine, 11% (11) of nursing students having source of awareness from radio/television, 18% (18) of nursing students having source of awareness from family friends, 48% (48) of nursing students having source of awareness from social media, 9% (9) of nursing students having source of awareness from other sources.

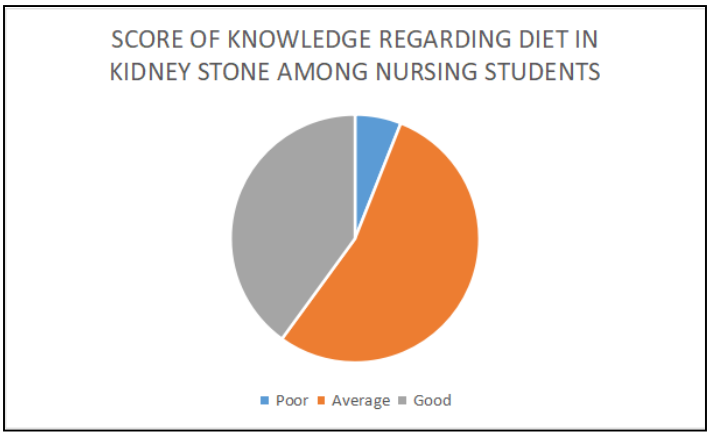
ECTION – 2

DESCRIPTION OF SCORE OF KNOWLEDGE REGARDING DIET IN KIDNEY STONE AMONG NURSING STUDENTS

Sr. No.	Knowledge regarding diet in kidney stone among nursing students	Score	Frequency	Percentage
1	Poor	0 - 10	6	6%
2	Average	11--20	54	54%
3	Good	21 - 30	40	40%

Table 2 Frequency and percentage score of knowledge regarding diet in kidney stone.

The data in table 2 shows that frequency and percentage of knowledge regarding diet in kidney stone among nursing students,in which 6% (6) of nursing students have poor knowledge, 54% (54) of nursing students have average knowledge, 40% (40) of nursing students have good knowledge.



SECTION -3

DESCRIPTION ON FREQUENCY, MEAN AND PERCENTAGE OF KNOWLEDGE REGARDING DIET IN KIDNEY STONE

Sr. no.	Knowledge regarding diet in kidney stone among nursing students	Frequency	Percentage	Mean	Mean Percentage	SD
1	Poor	6	6%	18.75	18.75%	4.49
2	Average	54	54%			
3	Good	40	40%			

Table no. 3: The above table reveal that 6% (6) of nursing students had poor knowledge, 54% (54) of nursing students had average knowledge, 40% (40) of nursing students had good knowledge and it's mean value is 18.75 and mean percentage is 18.75% with

standard deviation of 4.49

SECTION – 3(B)

CHI-SQUARE TEST IS USE TO FIND OUT THE ASSOCIATION BETWEEN DEMOGRAPHIC VARIABLES AND KNOWLEDGE REGARDING DIET IN KIDNEY STONE AMONG NURSING STUDENTS.

	Demographic variables	Frequency	Poor	Average	Good	DF	Chi Sq. Test	Table value P<0.05	Significance
1	**Age**								
	a) 17-22	95	6	52	38	6	0.366512	12.59	not significant
	b) 23-28	5	0	2	2				
	c) 29-34	0	0	0	0				
	d) 53 and above	0	0	0	0				
2	**Gender**								
	a) Male	29	1	13	14	4	2.100631	9.49	not significant
	b) Female	71	5	41	26				
	c) Transgender	0	0	0	0				
3	**Religion**								
	a) Hindu	69	3	39	27	6	8.0846133	12.59	not significant
	b) Christian	2	1	1	1				
	c) Muslim	3	0	1	2				
	d) Other	26	2	13	10				
4	**Course**								
	a) B.BSc. Nursing	60	2	21	15	6	20.243056	12.59	significant
	a) General Nursing and Midwifery	40	4	33	25				
	c) Auxiliary Nursing Midwifery	0	0	0	0				

	d) Post BSc. Nursing	0	0	0	0				
5	**Dietary Pattern**								
	a) Vegeterian	46	3	29	13	2	4.2635832	5.99	not significant
	b) Non-Vegeterian	54	3	25	27				
6	**Type of family**								
	a) Joint	35	1	24	10	4	4.7619048	9.49	not significant
	b) Nuclear	65	5	30	30				
	c) Extended	0	0	0	0				
7	**Amount of water intake**								
	a) <2 Ltr	29	3	11	15	6	6.5599989	12.59	not significant
	b) >2 Ltr	32	1	12	22				
	c) 5 Ltr	24	0	10	11				
	d) >5 Ltr	15	2	7	6				
8	**Source of awareness**								
	a) News paper/Magazine	14	1	9	4	8	7.301128	15.51	not significant
	b) Radio/Television	11	2	6	3				
	c) Family friends	18	0	11	7				
	d) Social media	48	2	25	21				
	e) Other	9	1	3	5				

Table no. 4:The above the association between demographic variables and the knowledge regarding diet in kidney stone by chi-square test so there is significant association between demographic variables that is course and there is not significant association between demographic variables that is age,gender, religion, dietary pattern, type of family, amount of water intake, source of awareness.

DISCUSSION:

Present study was undertaken to assess the awareness regarding diet in kidney stone among nursing students at selected nursing colleges at Nagpur city. The study revealed that knowledge regarding diet in kidney stone among nursing students in which 6% (6) of nursing students have poor knowledge, 54% (54) of nursing students have average knowledge, 40% (40) of nursing students have good knowledge.

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REFERENCES:

1. Kidney stones [Internet]. Mayo Clinic. Mayo Foundation for Medical Education and Research; 2022 [cited 2022Jul30]. Available from: https://www.mayoclinic.org/diseases-conditions/kidney-stones/symptoms-causes/syc-20355755
2. Kidney stones [Internet]. National Kidney Foundation. 2022 [cited 2022Jul30]. Available from: https://www.kidney.org/atoz/content/kidneystones
3. Sharma , S. K. (2017). Nursing Research & Statistics. Elsevier, a division of RELX India Private Limited.