



A Study to Assess the Knowledge Level and attitude regarding Safe Handling of Chemotherapeutic Drug among Nursing Students at Selected Colleges, Puducherry.

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ABSTRACT

A study was conducted in order to assess the knowledge level and attitude regarding safe handling of chemotherapeutic drug among B.Sc., Nursing students at selected colleges, Puducherry. The objectives of the studies were to assess the existing knowledge level regarding safe handling of chemotherapeutic drug among B.Sc., Nursing students at selected colleges puducherry. , to assess the attitude level regarding safe handling of chemotherapeutic drugs, to co-relate the knowledge level with attitude regarding safe-handling of chemotherapeutic drug, To associate the knowledge level with selected demographic variables. Keeping in view, the objectives of the study, research approach used for the study was quantitative research approach and non-experimental descriptive research design was selected for the study. The study was conducted at selected nursing colleges in Puducherry with the sample size of 100 B.Sc. nursing students (3rd and 4th year). Socio demographic data including age, gender, type of family, family income, interested subjects, year/semester, family members history of cancer, previous history of exposure to chemotherapeutic drugs, sources of information regarding chemotherapeutic drugs was gained through Self – structured closed ended questionnaire to assess the knowledge and attitude level among B.Sc. Nursing 3rd and 4th year students. Data was analyzed by descriptive statistical method. The study results reveals that intra-class correlation co-efficient is 0.98, it show that there is a negative correlation between the knowledge and attitude level of B.Sc. nursing students. The finding reveals that the majority of the B.Sc. nursing 3rd and 4th year students had moderately adequate knowledge regarding safe handling of chemotherapeutic drugs.

INTRODUCTION:

Cancer is the uncontrolled growth of abnormal cells in the body which is one of the 2nd largest killer diseases next to the heart disease. Management of the cancer consists of chemotherapy, radiation and surgery, among this, chemotherapy is the commonest treatment modality. The treatment of cancer with chemotherapeutic drugs started in early 20th century. Worldwide, chemotherapeutic drugs are used in the treatment of cancer. These drugs, which are administered as infusion or bolus injections, oral are usually prepared individually for each patient. The health hazard for medical personnel administering these drugs is a major concern.

In order to minimized occupational exposure to chemotherapeutic drugs, special department design and equipment are necessary as well as personal protective measures and safety practices during all procedures involving the use of these agents such as transportation and storage, preparation, administration, care of patients and disposing place a vital.

Worldwide, more than 11 million new cases of cancer are diagnosed each year and the number is expected to rise 16 million by 2020. **In India**, cancer becomes one of the ten leading causes of death. According to ICMR, in India by the year 2020, it is estimated that there will be increase of new case to 1 crore 20 lakhs cancer cases. This increased patient load, along with the use of high-dose of chemotherapy, combinations of several drugs and the use of antineoplastic drugs for diseases other than cancer, will increase the potential risk for exposure of the health care worker to these drugs.

Chemotherapy is increasingly being administered by oncology nurses in OPD clinic. Unintentional exposure to hazardous agents such as chemotherapy may endanger the

lives of healthcare workers. A new study revealed that 17% of oncology nurses who work in OPD chemotherapy infusion centers have had their skin or eyes exposed to the hazardous drugs they handle. Exposure to “Secondhand chemo” can confer significant health risks, such as nervous system effects, acute and long term reproductive effects and risk for hematologic malignancies. Several chemotherapy agents were linked to secondary leukemia and other cancers in patients who received antineoplastic agents for primarily, unrelated malignancies.

Before handling all chemotherapeutic drugs, nurse must wear face mask, goggles, apron, 2 pairs of gloves, to prevent personal exposure. The Nurse must wear 2 pair of gloves before in contact with the chemotherapeutic drugs. All chemotherapeutic drug should be stored in dark place. Every chemotherapy drug should be diluted and administered in dark place. Chemotherapy drug containing container bottle, tubing up to the patients site should be covered with carbon paper (absorbant pad) to prevent light exposure. Chemotherapy drug should be diluted properly and administered through large bore catheter. After administration, chemotherapy container bottle, tubing, all articles used for dilution and administration of drug should be labelled cytotoxic and discarded through proper method.

NEED FOR THE STUDY:

Chemotherapy is a type of cancer treatment that uses one or more anti-cancer drugs as part of a standardized chemotherapy regimen. Chemotherapy may be given with a curative intent, or it may aim to prolong life or to reduce symptoms. There have been increasing number of reports in the literature describing the possible effect of antineoplastic drug on health care professionals. **Dr. Hermicues (2015)** study shows that, especially nurses are exposed while preparing and administering the chemotherapeutic drugs. He assessed the nurses knowledge level on handling of chemo drugs. It revealed knowledge level of the Nurses about chemotherapeutic drugs is not satisfactory. So the awareness of the Nurses handling the chemotherapeutic drugs is of concern, because it is important in raising standards of safety. Suggested In-service training is a very effective tool to increase the level of knowledge

In 2017, approximately 75,000 Canadians (0.42% of the total workforce) are estimated as occupational exposed to antineoplastic agents; over 75% are female. The largest occupational group exposed to antineoplastic agents is community pharmacy workers, with 30,200 exposed. By work setting 39,000 workers (52% of all exposed) are located in non-hospital setting; the remaining 48% are exposed in hospitals. The majority (75%) of workers are in the moderate exposure category. **IN INDIA**, It is estimated 2.25 million of people living with this diseases. Every year, new cancer patients registered, over 11,57,294 lakhs cancer related deaths: was 7,84,821., Risk of developing cancer before the age of 75 years, Male-9.81%, Female-9.42%, Total deaths due to cancer in 2018 is Total-7,84,821. Men-4,13,519. Women-3,71,302. Risk of dying from cancer before the age of 75 years is 7.34% in Males, 6.28% in females. **IN PUDUCHERRY**, The incidence of cancer in 2014 are 1208 and estimated mortality cancer cases are 510 (ICMR 2014). The estimated incidence of Prostate cancer are 39 and mortality of Prostate cancer are 5. The incidence of breast cancer are 106, mortality of breast cancer are 4 and other cancer are around 230 cases in Puducherry. Keeping in view of these above findings, the incidence of patients undergoing chemotherapy is increased. So, the nurses are more prone to get adverse effects while preparing and administering the chemotherapeutic drugs.

OBJECTIVES OF THE STUDY:

- To assess the existing knowledge level regarding safe handling of chemotherapeutic drugs.
- To assess the attitude level regarding safe handling of chemotherapeutic drugs.
- To co-relate the knowledge level with Attitude regarding safe-handling of chemotherapeutic drug.
- To associate the knowledge level with selected demographic variables.

Methods and materials

The research approach gives a way for solving the research problem, it is based on the objectives of the study. In this study the researcher had chosen quantitative research approach to assess the knowledge and attitude on safe handling of chemotherapeutic drugs among B.Sc., Nursing (3rd and 4th year) students at selected colleges, Puducherry. Research design is a set of method and procedures used for collecting and analyzing measures of variable specified in the research problem or it is the researcher overall plan for answering the research question or testing research hypothesis. In this study the researcher had chosen Non-Experimental Descriptive research design was adopted to the present study.

Setting selected for this study was selected nursing colleges, which is situated in Puducherry, these colleges have approved by INC and these college come under Pondicherry university. The population comprised of 3rd and 4th year B.Sc., Nursing students from selected nursing colleges, Puducherry. The students who are in 3rd and 4th year of B.Sc., (N), the students who fulfills the inclusion and exclusion criteria, students who are willing to participate in the study and present during the period of data collection. The sampling technique used for this study is simple random sampling technique using the lottery method. The sample size was 100 B.Sc., Nursing 3rd and 4th year students from selected colleges, Puducherry.

CRITERIA FOR SAMPLE SELECTION:

INCLUSION CRITERIA:

- 1) Students who are studying in 3rd and 4th year at Nursing.
- 2) Students those who are available at the time of data collection.
- 3) Students those who are willing to participate.

EXCLUSION CRITERIA:

- Students those who are not appeal for the Medical Surgical Nursing subject.
- Students who have arrears in the Medical Surgical Nursing.

DEVELOPMENT AND DESCRIPTION OF THE TOOL:

The tool was developed after extensive review of literature, internet search and experts advice which helped the researcher to select the most suitable self-developed questionnaire for collecting the demographic data and self-structured questionnaire was used for this study, which consists of two sections, to assess the knowledge and attitude regarding safe handling of chemotherapeutic drugs.

Section A:

This section comprised of Demographic profiles such as Age, Sex, Type of family, Family income, Subject of interest, Year/semester, Family members history of cancer, Previous history of exposure to chemotherapeutic drugs, Sources of information regarding chemotherapeutic drug preparation gained through.

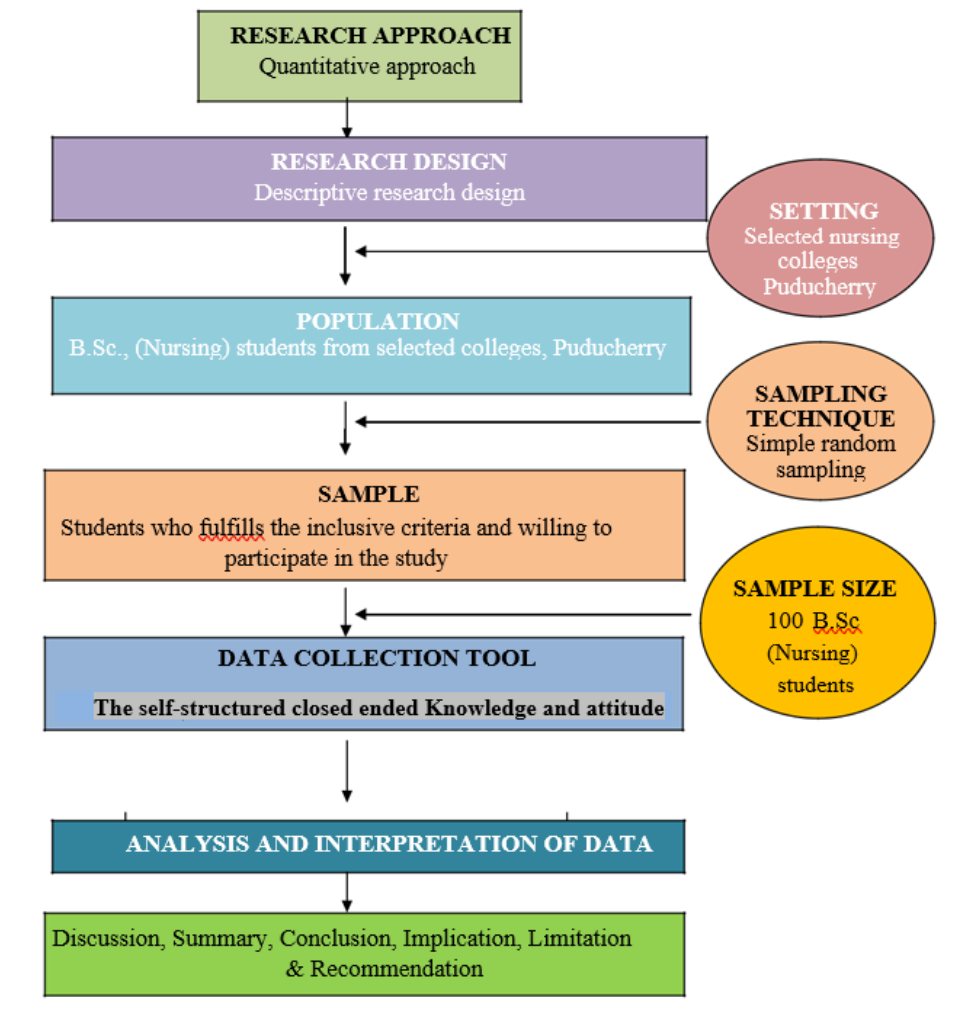
Section B:

Self-structured closed ended questionnaire to assess the knowledge level. It consists of 25 questions related to safe handling of chemotherapeutic drugs which includes,

- 1) Introduction to chemotherapeutic drug administration.
- 2) Safe handling of chemotherapeutic drugs.
- 3) Management of accidental spillage of chemotherapeutic drug on skin, eyes, surface, linen.
- 4) Personal protective equipment usage.
- 5) Adverse effect of cytotoxic drug on nurse.
1. Chemotherapy induced peripheral neuropathy.
2. Signs and symptoms of chemotherapy induced peripheral neuropathy.
3. Medical management of chemotherapy induced peripheral neuropathy.

The research sought permission from the administration of several selected colleges to carry study in that colleges. After obtaining proper consent from concerned authority, a total of 100 sample from 3rd and 4th year B.Sc., nursing students were selected for data collection, these sample are selected by simple random sampling technique using lottery method, sample should fulfill the following inclusion criteria and then explaining the procedure in detail to all the sample and also the investigator got the consent from each of the sample before data collection. The self-structured closed ended knowledge and attitude questionnaire were given to students and the direction was explained to them to answer the question. A total period of 15 minutes was required to complete the questionnaire for each sample. Sample must complete all the question within 15 minutes. The data was analyzed based on objectives of the study statistics. Analysis of demographic data was done in terms of frequency and percentage distribution organized the data in the master coding sheet Descriptive statistic like frequency and percentage, mean was used to analyze the demographic variables inferential statistics like correlation was used to find the relationship between knowledge level with attitude regarding safe handling of chemotherapeutic drugs.

Fig.3.1 flow diagram of research methodology



DISCUSSION:

Distribution of subjects based on age.

		N=100
Age	Frequency	Percentage(%)
18-19 years	15	15%
20-21 years	82	82%
22-23 years	3	3%
24-24 years	0	0%

The table shows that, majority of the subjects 82(82%) were falls between the age group of 20-21 years. Nearly 15(15%) of the subjects belongs to the age group of 18-19 years and a very few 3(3%) of the subjects were between 22-23 years respectively.

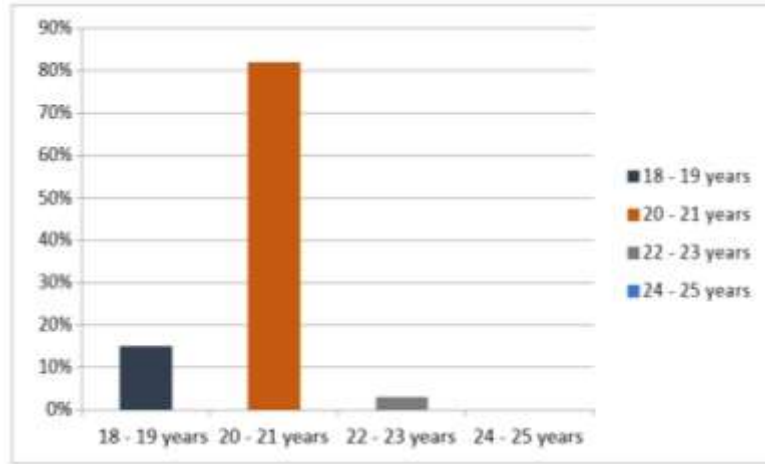


Fig 4.1 Distribution of subjects based on their age.

Table 4.2: Distribution of subjects based on sex.

		N=100
Sex	Frequency	Percentage(%)
Male	22	22%
Female	78	78%

The table portrays, distribution of subjects based on their sex. A majority of the subjects 78(78%) were female and 22(22%) were male.

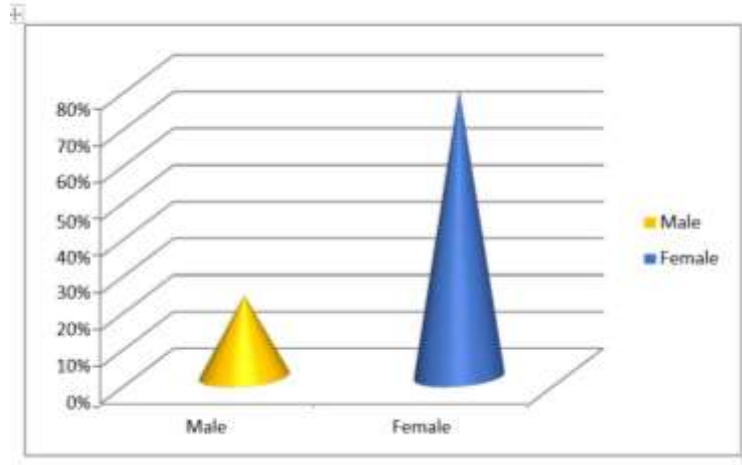


Fig 4.2 Distribution of subjects based on their sex.

Table 4.3: Percentage distribution of subjects based on their type of family.

		N=100
Type of family	Frequency	Percentage(%)
Nuclear family	84	84%
Joint family	16	16%

The table reveals percentage distribution of subjects based on their type of family. Majority of the subjects 84(84%) belongs to nuclear family and 16(16%) belongs to joint family.

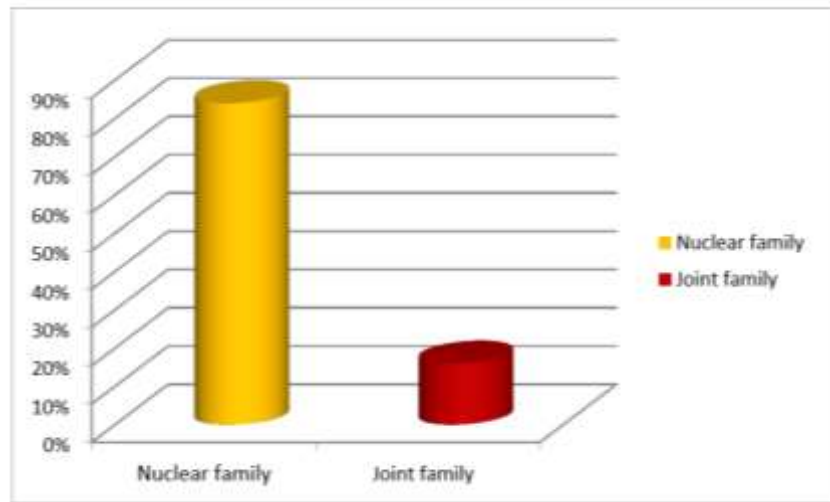


Fig.4.3 Distribution of subjects based on their type of family.

Table 4.4: Percentage distribution of subjects based on their family income.

		N=100
Family income	Frequency	Percentage(%)
Less than 10,000	39	39%
10,001 - 20,000	45	45%
20,001 – 30,000	7	7%
More than 30,001	9	9%

The table depicts distribution of subjects based on their family income. Most of the subjects 45(45%) had the family income of 10,001 – 20,000, 39(39%) had less than 10,000, a very few subjects 7(7%), 9(9%) earns 20,001 – 30,000 and more than 30,001 respectively.

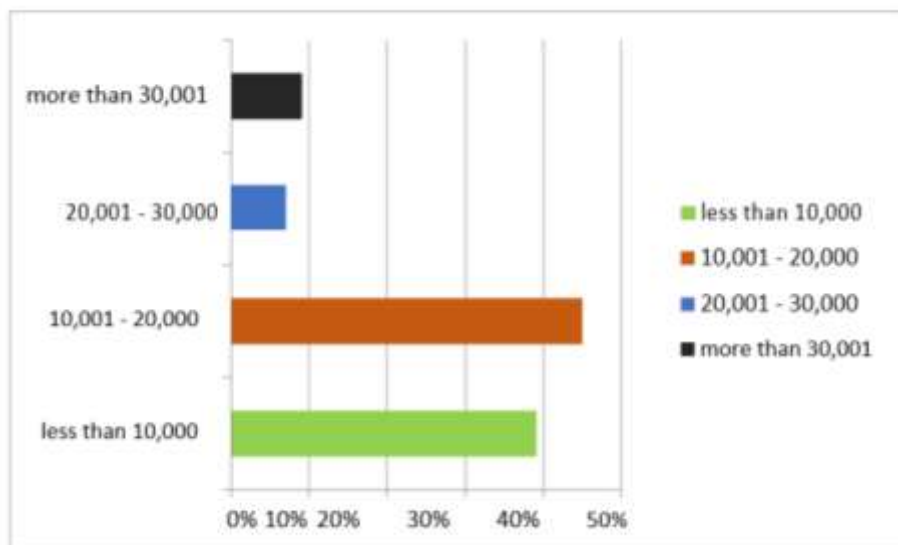
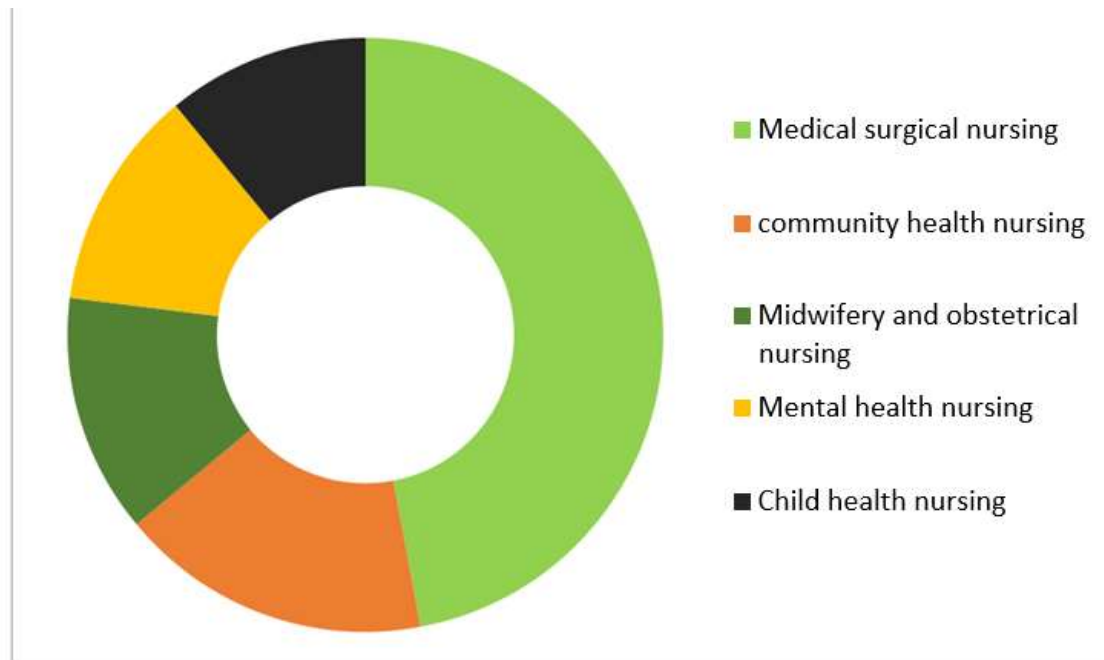


Fig 4.4 Distribution of subjects based on their family income.

Table 4.5: Percentage distribution of subjects based on their interested subjects.

		N=100
Subject of interest	Frequency	Percentage(%)
Medical surgical nursing	47	47%
Community health nursing	17	17%
Midwifery and obstetrical nursing	13	13%
Mental health nursing	12	12%
Child health nursing	11	11%

The table describes percentage distribution of subjects based on their subjects of interest. Majority of the students 47(47%) are interested in Medical surgical nursing and least had 11(11%) interested in community health nursing.

**Fig 4.5 Distribution of subjects based on their interested subjects.****Table 4.6: Percentage distribution of subjects based on the year/semester.**

		N=100
Year/semester	Frequency	Percentage(%)
3 rd year/6 th semester	38	38%
4 th year/8 th semester	62	62%

The table depicts percentage distribution of subjects based on the year/semester. Most of the subjects 62(62%) belongs to the 4th year/8th semester.

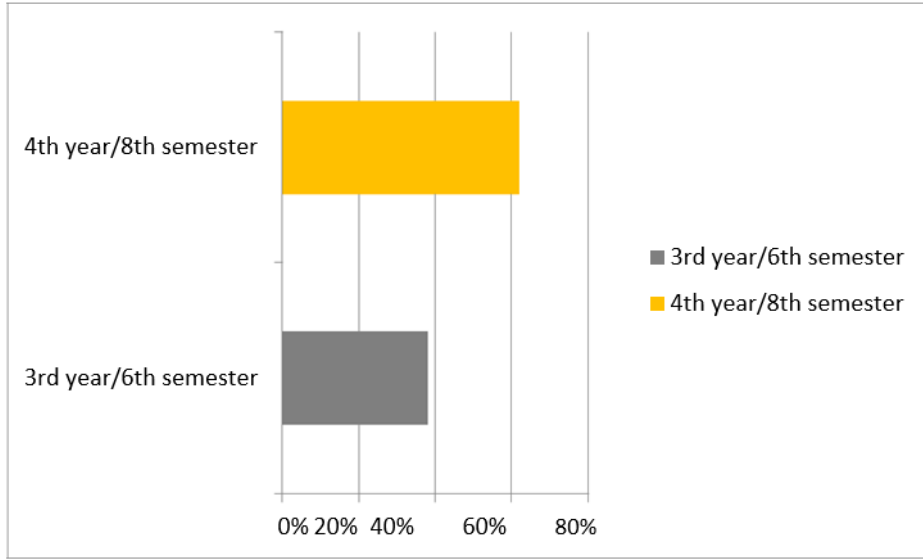


Fig 4.6 Distribution of subjects based on the year/semester.

Table 4.7: Percentage distribution of subjects based on the history of cancer among family members.

		N=100
Family members history of	Frequency	Percentage(%)
cancer		
No	92	92%
Yes	8	8%

The table shows that, majority of the subjects 92(92%) were not having the history of cancer among their family members and a very few subjects 8(8%) were a history of cancer among their family members.

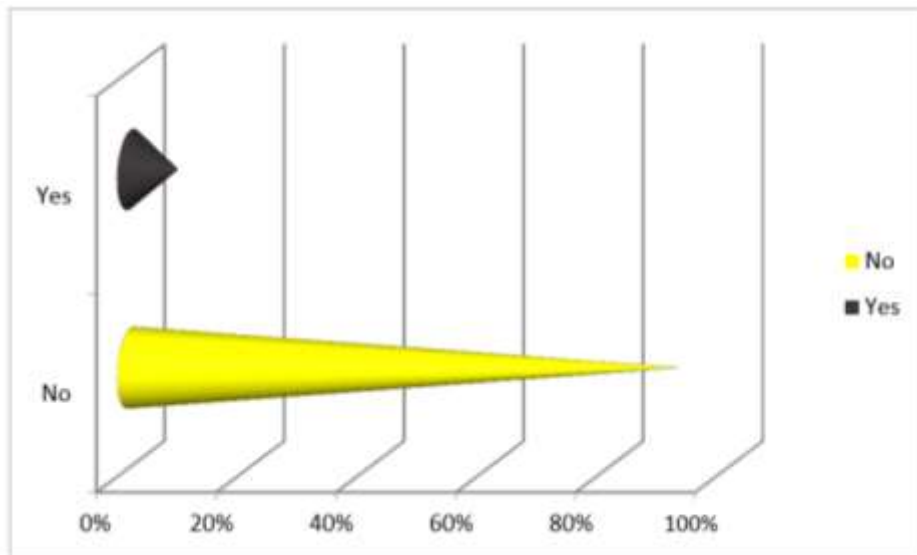


Fig 4.7 Distribution of subjects based on their family members history of cancer.

Table 4.8 : Percentage distribution of subjects based on their previous history of exposure to chemotherapeutic drugs.

		N=100
Previous history of exposure to chemotherapeutic drugs	Frequency	Percentage(%)
Yes	9	9%
No	91	91%

The table shows that, majority of the subjects 91(91%) had not exposed to chemotherapeutic drugs and a very few subjects 9(9%) had the history of exposed to chemotherapeutic drugs.

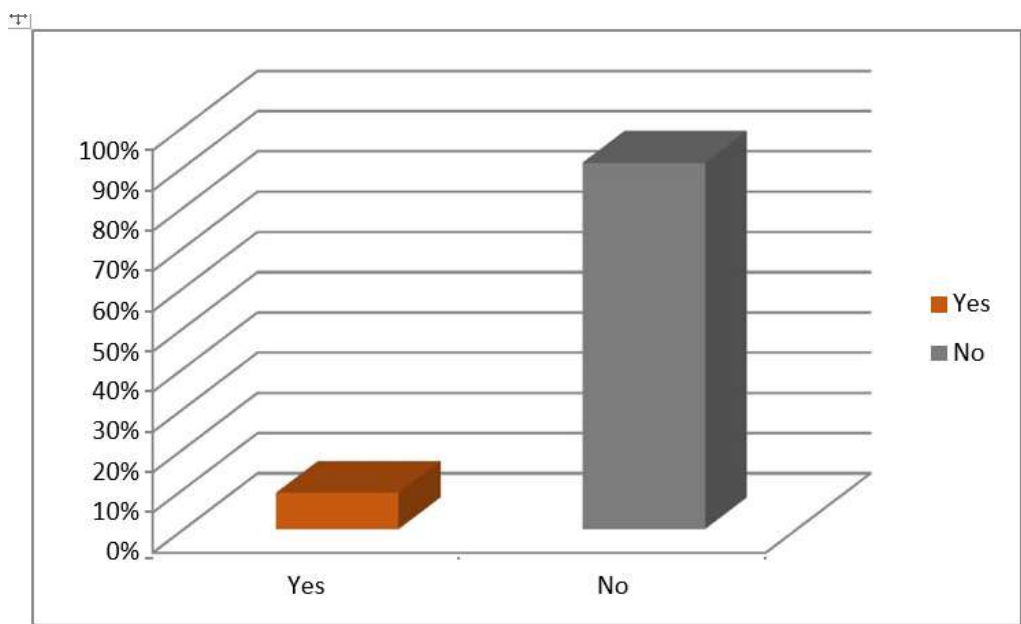


Fig 4.8: Distribution of subjects based on their previous history of exposure to chemotherapeutic drugs.

Table 4.9: Percentage distribution of subjects based on the sources of information regarding chemotherapeutic drugs gained through.

N=100

Sources of information	Frequency	Percentage(%)
Books	49	49%
Clinical exposure	44	44%
Internet	6	6%
Journals	1	1%

The table shows that, most of the subjects 49(49%) and 44(44%) gained information through books and clinical exposure, whereas a very few 6(6%) gained through internet respectively.

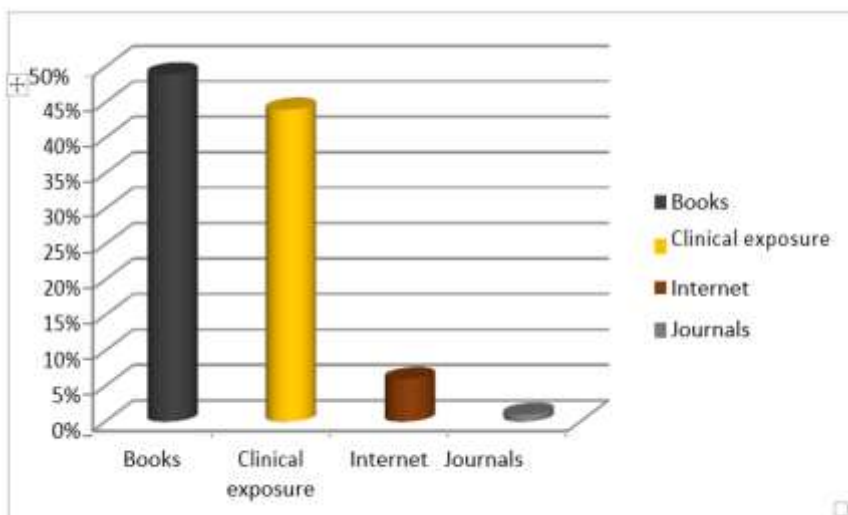


Fig 4.9 Distribution of subjects based on the sources of information regarding chemotherapeutic drugs gained through.

SECTION – B

FREQUENCY AND PERCENTAGE DISTRIBUTION OF KNOWLEDGE AND ATTITUDE LEVEL ON SAFE HANDLING OF CHEMOTHERAPEUTIC DRUGS.

OBJECTIVE.1 : To assess the existing knowledge level.

Table 4.10 : Frequency and percentage distribution of knowledge level.

		N=100
Knowledge level	Frequency	Percentage(%)
Inadequate knowledge	42	42%
Moderately adequate knowledge	58	58%
Adequate knowledge	0	0%

The table shows that, majority of the subjects 58(58%) had moderately adequate knowledge and 42(42%) had inadequate knowledge and none possess adequate knowledge regarding safe handling of chemotherapeutic drugs.

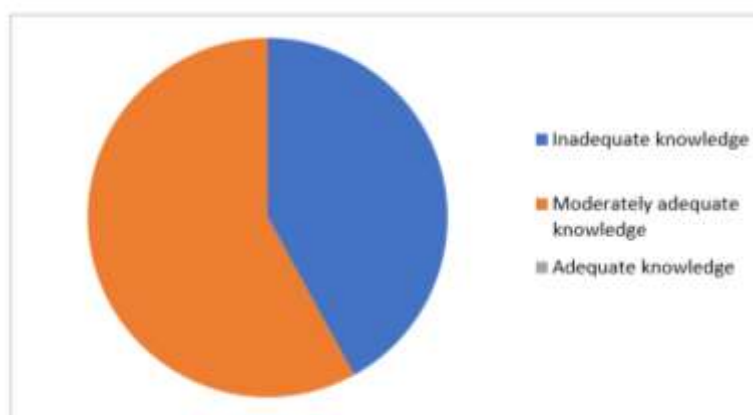


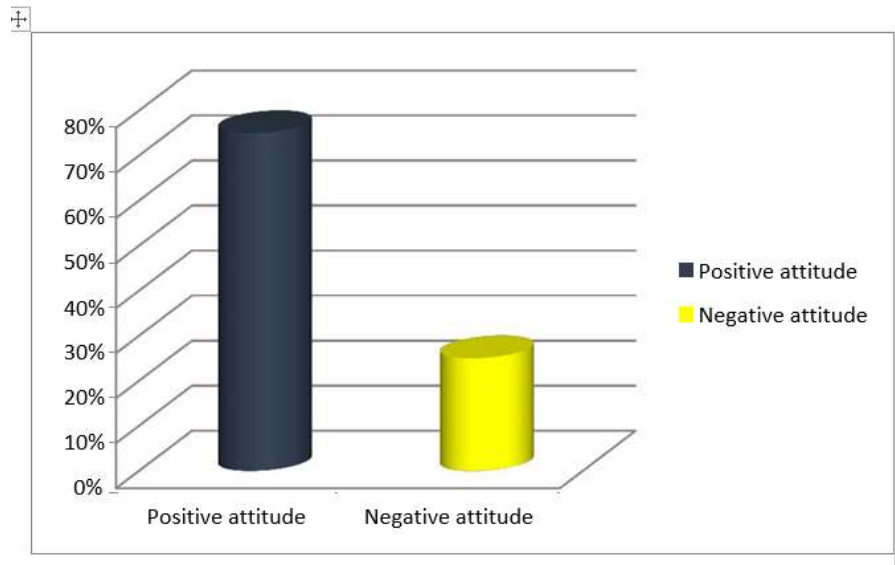
Fig 4.10: Distribution of subjects based on the knowledge level.

OBJCETIVE . 2 : To assess the attitude level regarding safe handling of chemotherapeutic drugs.

Table 4.11 : Frequency and percentage distribution of the Attitude level.

		N=100
Types of attitude	Frequency	Percentage(%)
Positive attitude	75	75%
Negative attitude	25	25%

The table shows that, most of the subjects 75(75%) had positive attitude and 25(25%) had negative attitude towards safe handling of chemotherapeutic drugs.

**Fig 4.12 Distribution of subjects based on the attitude level****SECTION – C**

OBJECTIVE . 3: To co-relate the knowledge level with attitude regarding safe handling of chemotherapeutic drugs.

Table 4.12: Co-relation of knowledge level with attitude.

Co-relation co-efficient	Attitude level
Knowledge level	
r – value	r = - 0.0846
p – value	P < 0.01

**p < 0.01, S-significant, N.S-Not significant

The above table shows non – significant p –value . The relationship between the knowledge and attitude regarding safe handling of chemotherapeutic drugs, It infers that, whenever the level of knowledge decreases their attitude becomes negative.

SECTION D

Table 4.17: Association of knowledge level with their selected demographic

variables.

N= 100

DEMOGRAPHIC VARIABLE		KNOWLEDGE LEVEL							CHI-SQUARE	SIGNIFICANCE LEVEL
		ADEQUATE		INADEQUATE		MODERATE		TOTAL		
		NO	%	NO	%	NO	%	NO		
AGE	18-19 Years	0	0.0%	7	46.7%	8	53.3%	15	0.727	NOT-SIGNIFICANCE
	20-21 years	0	0.0%	35	42.7%	47	57.3%	82		
	22-23 Years	0	0.0%	2	66.7%	1	33.3%	3		
	24-25 Years	0	0.0%	0	0.0%	0	0.0%	0		
GENDER	MALE	0	0.0%	13	59.1%	9	40.9%	22	2.607	NOT-SIGNIFICANCE
	FEMALE	0	0.0%	31	39.7%	47	60.3%	78		
TYPE OF FAMILY	NUCLEAR	0	0.0%	36	42.9%	48	57.1%	84	0.278	NOT-SIGNIFICANCE
	JOINT	0	0.0%	8	50.0%	8	50.0%	16		
INCOME	< 10,000	0	0.0%	19	48.7%	20	51.3%	39	3.535	NOT-SIGNIFICANCE
	10,001 - 20,000	0	0.0%	16	35.6%	29	64.4%	45		
	20,001 - 30,000	0	0.0%	3	42.9%	4	57.1%	7		
	>30,000	0	0.0%	6	66.7%	3	33.3%	9		
	MEDICAL SURGICAL NURSING	0	0.0%	19	40.4%	28	59.6%	47		

INTERESTED SUBJECTS	COMMUNITY HEALTH NURSING	0	0.0%	9	52.9 %	8	47.1 %	17	1.142	NOT-SIGNIFICANCE
	MENTAL HEALTH NURSING	0	0.0%	6	50.0 %	6	50.0 %	12		
	CHILD HEALTH NURSING	0	0.0%	5	45.5 %	6	54.5 %	11		
	MIDWIFERY & OBS NURSING	0	0.0%	5	38.5 %	8	61.5 %	13		

YEAR / SEMESTER	IIIYR/6 SEMESTER	0	0.0%	15	39.5 %	23	60.5 %	38	0.51	NOT-SIGNIFICANCE
	IVYR/8 SEMESTER	0	0.0%	29	46.8 %	33	53.2 %	62		ANCE
FAMILY HISTORY OF CANCER	YES	0	0.0%	2	25.0 %	6	75.0 %	8	1.274	NOT-SIGNIFICANCE
	NO	0	0.0%	42	45.7 %	50	54.3 %	92		
PREVIOUS HISTORY OF EXPOSURE TO CHEMOTHERAPEUTIC DRUGS	YES	0	0.0%	5	55.6 %	4	44.4 %	9	0.536	NOT-SIGNIFICANCE
	NO	0	0.0%	39	42.9 %	52	57.1 %	91		
SOURCE OF INFORMATION	BOOK	0	0.0%	20	40.8 %	29	59.2 %	49	1.323	NOT-SIGNIFICANCE
	INTERNET	0	0.0%	3	50.0 %	3	50.0 %	6		
	CLINICAL EXPOSURE	0	0.0%	21	47.7 %	23	52.3 %	44		
							100.			

JOURNALS	0	0.0%	0	0.0%	1	0%	1		
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****p<0.01, S – Significant, N.S – Not Significant**

The above table depicts that, the demographic variable had shown statistically not significant association with knowledge level regarding safe handling of selected chemotherapeutic drugs among nursing students at p<0.01 level.

DISCUSSIONS AND SUMMARY

This chapter deals with the discussion of the study findings and compared with statistical analysis based on the objectives. The study was conducted to evaluate the knowledge and attitude on safe handling of chemotherapeutic drugs among B.Sc Nursing students at selected colleges, Puducherry, The study findings were discussed in this chapter with reference to the objective. The study was conducted by using descriptive research design. Simple random sampling technique was used to collect sample using lottery method with the sample size of 100. The investigator explained the study to the subjects and assessed their knowledge level and attitude regarding safe handling of chemotherapeutic drugs by adopting self structured closed ended questionnaire. The knowledge level and attitude was analysed using descriptive (mean and %) and inferential statistics.

Distribution of demographic variables in the study

- Regarding age, majority of the subjects 82(82%) falls between the age group of 20-21 years. Nearly 15(15%) of the subjects belongs to the age group of 18-19 years and very few 3(3%) of the subjects were between 22-23 years respectively.
- Regarding gender, majority of the subjects 78(78%) were female and 22(22%) were male.
- According to the type of family, majority of the subjects 84(84%) belongs to the nuclear family and 16(16%) belongs to joint family.
- Regarding family income, 45(45%) had the family income of 10,001-20,000, 39(39%) had less than 10,000. Very few subjects 7(7%), 9(9%) earns under 20,001-30,000 and less than 30,000 respectively.
- Regarding the subject of interest, majority of the students 47(47%) are interested in Medical surgical nursing and least had 11(11%) interested in Community health nursing.
- Regarding the year/semester, most of the subjects 62(62%) belongs to 4th year and 38(38%) belongs to 3rd year.
- According to the history of cancer among family members, majority of the subjects 92(92%) are not having the history of cancer among family members and very few subjects 8(8%) are having the history of cancer among family members.
- According to their previous history of exposure to chemotherapeutic drugs, majority of the subjects 91(91%) had not exposed to chemotherapeutic drugs and a very few subjects 9(9%) had the history of exposure to chemotherapeutic drugs.
- According to the sources of information regarding chemotherapeutic drugs gained through, most of the subjects 49(49%) and 44(44%) gained through books and clinical exposure where as a very few 6(6%) gained through internet respectively.

Findings based on objectives

The first objective was to assess the existing knowledge level regarding safe handling of chemotherapeutic drugs among B.Sc Nursing 3rd and 4th year students. The results exhibits that, majority 58(58%) of the subjects had moderately adequate knowledge and 42(42%) had inadequate knowledge. The present study was supported by Ms.Rupali P.Pethe, Ms.Alphy Rose, et al., (2017) conducted to assess the effectiveness of planned teaching on knowledge regarding safe handling of chemotherapeutic drugs among the student nurses in selected nursing colleges of Vidarbha region. In pre-test, the minimum score was 4, the maximum score was 15 and the mean score was 9.95 ± 2.281 . In post-test, the minimum score was 5 and the maximum score was 20, the mean score was 16.05 ± 2.620 . It revealed that before the planned teaching, knowledge of student nurses was not adequate but after the planned teaching, knowledge level was improved tremendously. It concludes that teaching knowledge was very helpful for the student nurses in order to handle the chemotherapeutic drugs safely.

The second objective was to assess the attitude level regarding safe handling of chemotherapeutic drugs among B.Sc Nursing 3rd and 4th year students. The study results revealed that, majority 75(75%) of the subjects had positive attitude and 25(25%) had negative attitude towards safe handling of chemotherapeutic drugs. The present study was supported by D.L.B.Schwappach, et al., (2018) conducted a cross sectional study regarding oncology nurses beliefs and attitudes towards the double check of chemotherapy medications at three hospitals, Swiss. The result shows that nurses reports very strong beliefs in the effectiveness and utility of double checking. They were also confident about their own performance in double checking. Nurses widely believed that double checking produce safety. It concludes that the widespread and strong believe in the effectiveness of double checking is linked to beliefs about safety production and co-exists with acknowledgement of the major disadvantages of double checking by humans. These results are important factors to consider when any existing procedures are adapted or new checking procedures were implemented. The Third objectives of the study

was to correlate the knowledge level with attitude. The study result showed negative correlation between the knowledge and attitude regarding safe handling of chemotherapeutic drugs, It infers that, whenever the level of knowledge decreases their attitude becomes negative.

The forth objectives was to associate the knowledge level with selected demographic variables The result shows that none of the demographic variables had shown statistically significant association with knowledge level regarding safe handling of selected chemotherapeutic drugs among nursing students at $p < 0.01$ level.

SUMMARY: The prime aim of the study was to assess the knowledge level and attitude regarding safe handling of chemotherapeutic drugs among B.Sc Nursing 3rd and 4th year students at selected colleges, Puducherry. The objectives of the study were, To assess the existing knowledge level regarding safe handling of chemotherapeutic drugs among B.Sc Nursing 3rd and 4th year students. To assess the attitude level regarding safe handling of chemotherapeutic drugs. To correlate the knowledge level with the attitude level regarding safe handling of chemotherapeutic drugs .To associate the knowledge with selected demographic variables.The review of literature enabled the investigator to develop tool for the study, determine the methodology, plan for the analysis of data in most effective and efficient way. The research approach adapted for the study was descriptive study. The population of this study was B.Sc nursing 3rd and 4th year students at selected colleges, Puducherry. The sample of the study was taken based on inclusion criteria and followed simple random sampling technique using lottery method. Tool consists of demographic data and self structured closed ended questions of 37(25-Knowledge, 12-Attitude) questions to assess the level of knowledge and attitude. To establish the content validity the tool was given to 5 experts in the field of medical surgical nursing and obtained their valuable suggestions. Final study was conducted among 100 B.Sc nursing 3rd and 4th year students at selected colleges, Puducherry. The Data was analysed by descriptive statistics (Frequency, Percentage and Mean) and inferential statistics (Correlation). Major findings of the study: Majority 58(58%) of the subjects had moderately adequate knowledge and 42(42%) had inadequate knowledge regarding safe handling of chemotherapeutic drugs. From this results, it is clearly indicate that students are not having adequate knowledge regarding safe handling of chemotherapeutic drugs. Most of the students 75(75%) had positive attitude and 25(25%) had negative attitude towards safe handling of chemotherapeutic drugs. Therefore, most of the students had positive attitude towards safe handling of chemotherapeutic drugs. Significant p-value infers that there is a negative relationship exists between moderately adequate knowledge level with attitude regarding safe handling of chemotherapeutic drugs.

CONCLUSION:

The study result showed that knowledge level was moderately adequate and had negative attitude towards safe handling of chemotherapeutic drugs. The above results highlights the knowledge level was moderately adequate and the attitude level was negative which was proved statistically. Hence it was recommend that, imparting knowledge was necessary for B.Sc Nursing 3rd and 4th year students regarding safe handling of chemotherapeutic drugs in order to build the attitude there by complication related to poor handling of chemotherapeutic drugs can be reduced.

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