



“A Study To Assess The Effectiveness Of Video Assisted Teaching On Safety Measures While Handling Chemotherapy Drugs On Knowledge, Attitude And Practice Of Nurses In Selected Hospital At Indore”

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ABSTRACT

BACKGROUND OF THE STUDY

Cancer is a group of disease characterized by uncontrolled growth and spread of abnormal cells. If the spread is not controlled, it can result in death (American Cancer Society (ACS)).

Cancer is a term for diseases in which abnormal cells divide without control and can invade nearby tissues and other parts of the body through blood and lymphatic systems (National Cancer Institute (NCI,2015)).

Worldwide, more than 11 million new cases of cancer are diagnosed every year, and that number is expected to rise to 16 million by 2020. In India, cancer is the second most common disease at the year of 2015, 1 crore new cases have been diagnosed and by the year 2020 cancer cases is going to be increased to 1 crore 20 lakhs according to Indian Council of Medical Research (2017).

About 88,847 new cancer cases are diagnosed in Tamilnadu by the year of 2016. In Tamilnadu the most common cases that affect are those of stomach, lung and mouth and among women it is breast cancer (Tamilnadu Cancer Registry Project (TNCRP, 2016)).

The treatments for cancer are chosen depending on the type, location, and grade of the cancer as well as the person's health and wishes. The treatment intent may be curative or not curative. Chemotherapy is the use of cytotoxic drugs in the treatment of cancer. It is one of the four treatment modalities (the other being surgery, radiation therapy, and biotherapy) that provide cure, control, or palliation (Martha E. Langhorne et al., 2007).

Chemotherapy is the treatment of cancer by the use of chemical substances to kill tumour cells by interfering with cellular function and cellular reproduction (Brunner 2011).

Chemotherapy may be used to achieve control over the disease by preventing or slowing down the growth of a malignant tumour and thus prolonging survival and it may be used palliatively in the management of symptoms such as pain or breathlessness (Jessica Corner et al., 2008).

2 NEED FOR THE STUDY

Drugs have a successful history in treating illnesses, and they are responsible for many of our medical advances. However, virtually all drugs have side effects associated with their use by patients, and both patients and nurses who handle them are at risk of suffering these effects that might result from exposure to even very small concentrations of certain hazardous drugs. Many antineoplastic drugs are known to be carcinogenic, teratogenic and mutagenic to humans. There is a potential occupational exposure risk to cytotoxic drugs.

Nurses are among the main groups of professionals that are exposed to these drugs in patient care settings. Although the potential therapeutic benefits of hazardous drugs outweigh the risks of side effects for ill patients, exposed nurses risk these same side effects with no therapeutic benefit. Most drugs are given to the patient through intra venous drip but some drugs are pushed via a syringe. In either case, drug administration poses a risk to the nurses from a spill or release from the IV bag or through a pressured release during the drug push. Drug administration to patients requires wearing personal protective equipment's in the event of a spill or other unplanned release (American cancer society, 2016).

During the past 30 years, professional organizations and government agencies have developed guidelines to protect healthcare workers from adverse effects of occupational exposure to antineoplastic drugs.

In 2004, the national institute for occupational safety and health (NIOSH) published an alert reviewing the most recent information available and promoting a program of safe handling during their uses.

When health risks to exposed workers became a recognized safety concern, professional practice organizations (Oncology Nursing Society) and government agencies (NIOSH-2013, OSHA – 2013)

published guidelines for the safe handling of hazardous drugs.

Based on above information it is evident that the nurses are at greater risk of developing adverse effects due to occupational exposure to antineoplastic drugs. Apart from this during researcher's clinical exposure have noticed that nurses are inadequately protected due to poor knowledge and lack of clear guidelines of safe handling of antineoplastic drugs. So researcher felt that is essential to assess the knowledge and to improve their existing knowledge on safety measures while handling chemotherapy antineoplastic drugs among staff nurses.

OBJECTIVES

- To assess the level of knowledge, attitude and practice of nurses on safety measures while handling chemotherapy drugs before and after video assisted teaching.
- To compare the level of knowledge, attitude and practice of nurses on safety measures while handling chemotherapy drugs before and after video assisted teaching.
- To associate the level of knowledge, attitude and practice of nurses on safety measures while handling chemotherapy drugs with selected demographic variables such as age, gender, marital status, professional qualification, duration of work with chemotherapy drugs.

HYPOTHESES:

- H_1 : There will be a significant difference between level of knowledge, attitude and practice of nurses regarding safety measures while handling chemotherapy drugs before and after video assisted teaching.
- H_2 : There will be a significant association between pre test level of knowledge, attitude and practice of nurses regarding safety measures while handling chemotherapy drugs with selected demographic variables.

METHODOLOGY

Research methodology is a systemic way to solve a problem. It is a science of studying how research is to be carried out. Essentially the procedures by which researchers go about their work of describing, explaining and predicting phenomena are called research methodology. It is also defined as the study of methods by which knowledge is gained. The aim is to give the work plan of research (Philominathan 2014).

This chapter dealt with the research approach, research design, setting, population, sample, sampling technique, criteria for sample selection, variables, data collection tools and techniques, content validity of the tool, reliability of the tool, pilot study, procedure for data collection, plan for data analysis and ethical considerations.

RESULT AND INTERPRETATION

Variables	Pre test		Post test		Improvements		“t”	df	Sig
	Mean	SD	Mean	SD	Mean	SD			
Knowledge	9.7	1.9	17.4	2.0	7.7	1.4	29.033	29	P<0.001
Attitude	27.1	2.5	35.7	1.7	8.6	3.2	14.929	29	P<0.001
Practice	3.9	0.6	7.9	1.2	4.0	1.3	16.664	29	P<0.001

This chapter dealt with the analysis and interpretation of the data which was collected from 30 samples to assess the effectiveness of video assisted teaching on safety measures while handling chemotherapy drugs on knowledge, attitude and practice of nurses in selected hospital at Indore city.

Statistical analysis is a method of rendering quantitative information in a full and intelligible statistical procedure enables the researcher to reduce, summarize, organize, evaluate, interpret and communicate numeric information (Pilot 2008)

The effectiveness of video assisted teaching in respect of knowledge attitude and practice in pre and post test were shown in the above table 5. The mean knowledge before video assisted teaching was 9.7 ± 1.9 and the same after video assisted teaching was 17.4 ± 2.0 . The mean improvement was 7.7 ± 1.4 . Similarly, the mean attitude before and after video assisted teaching were 27.1 ± 2.5 and 35.7 ± 1.7 . The improvement of attitude was 8.6 ± 3.2 . Similarly, the mean practices before and after video assisted teaching were 3.9 ± 0.6 and 7.9 ± 1.2 . The practice improvement was 4.0 ± 1.3 . The mean improvements of knowledge, attitude and practice were statistically very highly significant ($P < 0.001$).

CONCLUSION :-

This study reveals that the video assisted teaching is effective in improving the knowledge, attitude and practice of nurses on safety measures while handling chemotherapy drugs. Though knowledge and attitude of nurses are significantly improved with highest mean improvement, because of unavailability of adequate resources (bio safety cabinet, N95 respirator) in the oncological unit, practice were improved with low mean improvement. So we strongly recommend to setup the clinical

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