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Pain perception of children undergoing chemotherapy

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ABSTRACT

Pain is a very common and most stressful experience which a child faces during chemotherapy. Children with cancer need frequent pharmacological interventions to manage pain. As cancer is a chronic condition and cancer treatment-related symptoms like pain are reported by child and parents frequently. It is a known fact that cancer treatments are long term care which is associated with many side effects. This study aimed to examine the pain perceived by children with cancer. The study was conducted using a descriptive correlational design on 125 children who met the inclusion criteria using purposive sampling technique. Data was collected using Demographic and clinical variables Proforma and pain was assessed using the Wong Bakers Face Pain Rating Scale. The findings revealed that the pain experienced by children with cancer during chemotherapy was 64.8%. There was no significant association between Selected Demographic Variables of Children and Pain (p>0.05).

Keywords— *Cancer, Pain perception, Chemotherapy*

1. INTRODUCTION

Children are the most prestigious resource as a healthy child makes a healthy society. Chronic illness among children is one reason which results in hospitalization. Hospital environment itself is very stressful for the children. When it comes about cancer among children, the disease itself is causing pain for the children and is a stressful situation for the parents. As per the population-based cancer registry in 68 countries, during the decade, 2001-2010 approximately 215,000 cancer cases were diagnosed annually and among them, approximately 80,000 cancer-related death occurred in children under 15 years.[1]

Children on cancer treatment with chemotherapy experiences pain often, such pain is managed by analgesics. A study on 230 parents and caregivers (89% mothers) of children (mean age=8.93 y, SD=4.50) with cancer who are on treatment were surveyed about the pain perceived by children in the past one month. The results of the study revealed that the children who were on active treatment and post treatment experienced considerable levels of pain.[2]

In a study on 66 children and their families were interviewed regarding their experience of pain during cancer treatment. The results show that 49% of them had cancer related pain at the time of diagnosis. The procedural pain was high in the beginning and later as the treatment advanced the pain minimised.[3] another article on pain reviews the various settings in which infants, children, and adolescents experience pain during invasive procedures.[4] Acute pain is very common to experience for a child who is hospitalized. In a systematic review of 1469 articles related to pain perceived by children who are hospitalized shows that the children were in the age group of 0-18 years. A majority had reported procedure related pain which is managed by pharmacological and non-pharmacological ways.[5]

2. STATEMENT OF THE PROBLEM

A Descriptive correlational Study to Assess the Pain Perception of Children Undergoing Chemotherapy at Selected Hospitals, Chennai.

3. OBJECTIVES OF THE STUDY

(a) To assess the level of pain perceived by children undergoing chemotherapy.
(b) To determine the association between selected variables and pain perceived by children undergoing chemotherapy.

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4. NULL HYPOTHESIS

H01 There will be no significant association between selected variables and pain perceived by the children undergoing chemotherapy.

5. MATERIALS AND METHODS

A descriptive correlational design was adopted to conduct the study at Selected Hospitals, Chennai, India after prior permission is obtained from the concerned authority. One hundred and twenty-five children with cancer undergoing chemotherapy were selected by purposive sampling technique. After a formal introduction, the researcher obtained consent from the participants of the study. Confidentiality was maintained throughout the study.

6. INSTRUMENTS

The baseline data was collected using the Demographic Variable Proforma, Clinical Variable Proforma and Wong Bakers Face Pain Rating Scale were used to assess the pain perceived by children undergoing chemotherapy. The scores ranged from 0- no hurt, 2- hurts a little bit, 4- hurts little more, 6- hurts, even more, 8- hurts a whole lot, 10- hurts worst. The maximum score was 10 and the minimum score 0.

7. DATA COLLECTION

The researcher collected the demographic and clinical variables with a set of predetermined questions by interviewing the children and parents. The pain perceived by children undergoing chemotherapy was assessed by using Wong Bakers Faces Pain Rating Scale.

8. RESULTS

The study findings revealed that 80.8% of children were in the age group of 8-10 years, males (68.8%) with primary education (64%), all were diagnosed with Leukaemia (100%) receiving chemotherapy (100%). All children had peripheral venous access (100%).

Table 1: Frequency and Percentage Distribution of Level of Pain among Children with Cancer (N= 125)

Level of pain	F	%
No	-	-
Mild	44	35.2
Moderate	81	64.8
Severe	-	-

Table 1 reveals that a majority of children 64.8% had moderate pain.

Table 2: Association between Selected Demographic Variables of Children and Pain (N= 125)

Variables					χ^2 df P value
	No	Mild	Moderate	Severe	
Age in years 8-10	--	35	66	--	0.69 df=1 P=0.82
11-12		9	15		
Gender Male	--	31	55	--	0.87 df=1 P= 0.84
Female		13	26		
Education of Children Primary		27	53		0.21 df=1 P=0.70
Secondary		17	28		

Table 2 reveals that there is no significant association between selected demographic variables of children and pain ($p>0.05$).

9. DISCUSSION

The study findings reveal that 80.8% of children were in the age group of 8-10 years. It is found in various reviews that the incidence of cancer in the world is about 3,00,000 among children in the age group of 0-19 years, diagnosed every year.[6] It is often seen that the occurrence of cancer is more common in males (68.8%). The study is supported by Indian Cancer Registries report, which states about 5.8% of boys, and 3.4% of girls are diagnosed with cancer.[7]

Many children with cancer always have some or the other form of disturbance with their school education due to frequent infections and treatment-related side effects due to tp pain as a major reason. In this study despite the treatment and its side effects, the children had age-appropriate education as about 64% were with primary education.

In the present study, all samples were diagnosed with Leukaemia (100%) and were receiving chemotherapy (100%). All children had peripheral venous access (100%). There are many types of cancers among children and some of the most common cancer in young children is leukemias, brain tumours, lymphomas and other solid tumours.[6, 8]

In this study the majority of children, 64.8% had moderate pain. Pain is a subjective symptom and has to be reported by the children. In a cross-sectional audit done on inpatients of Australian tertiary-level Children's Cancer Centre for two-month duration

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shows pain was reported about 258 times related to care. The findings showed pain related to treatment for cancer was common (n = 146/258, 57%) and continual.[9] The study also reported that there was no significant association between selected demographic variables of children and pain (p>0.05).

10. CONCLUSION

The children with cancer hospitalized to undergo a lot of physical stress every day. Pain is the worst symptom which is experienced by children with cancer treatment. This study shows that there is a moderate level of pain perceived by children undergoing chemotherapy. It is essential as a nurse to assess the cues of pain among children with cancer and encourage the child to report pain as it is the subjective symptom.

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