International Journal of Scientific Research and Management (IJSRM)
||Volume||5||Issue||07||Pages||6092-6096||2017||
Website: www.ijsrm.in ISSN (e): 2321-3418
Index Copernicus value (2015): 57.47 DOI: 10.18535/ijsrm/v5i7.34

Effectiveness of structured Teaching programme on Knowledge regarding prevention of upper respiratory tract infection among parents of children under age of 14 years who are undergoing chemotherapy

Mrs Sanghamitra Jena

M.Sc(N),Child Health Nursing Dept. Meenakshi College of Nursing, Chennai-600069..

Abstract: Aim to evaluate the effectiveness of structure teaching programme on knowledge regarding prevention of Upper respiratory tract infection among parents of children under age of 14 years who are undergoing chemotherapy. The study was conducted in Basavatarakam Indo-American cancer hospital and research centre, Hyderabad, Telangana, India. The researcher selected 30 parents who fulfilled the inclusion criteria were selected by using simple convenient technique. Data was collected regarding demographic variable and knowledge of prevention of upper respiratory tract infection. The researcher assessed knowledge level of knowledge by using structure questionnaire and followed by structure teaching programme was conducted by one-one method and post-test conducted after 7 days. The analysis finding indicates clearly that percentage distribution of pre-test knowledge scores of parents regarding prevention of upper respiratory tract infection was 44.66% had below average knowledge and 53.34% had average knowledge. Frequency and percentage distribution of post-test knowledge scores of parents regarding prevention of upper respiratory tract infection. In 96.6% had above average knowledge and 3.4% had average knowledge. The effectiveness of programme showed high level of significance at $p<0.05$ level. It showed that structure teaching programme was an effective method it improved the knowledge. The study concluded that parents of chemotherapy children was inadequate knowledge thus structure education helps to enhance the knowledge.

Health of today's child is hope for tomorrow to the parents' family, community and nation. Children always need special care for healthy growth and development. Parents play a major role to protect them from infections either in home or outside. Mother is the first teacher of child. The child learns by seeing or mimicking the parents. Mother is the first doctor of children who can recognize the symptoms of any problem the child may have.

Now-a-days changing environment and some other factors like genetic factors are causing cancer among children. Childhood cancer diagnosed Worldwide, More than175,000 children each year. Cancer doesn't care about borders, race, nationality, age, socio-economic level or religion—it can strike any child at any time. Childhood cancers that develop in children are often different from the types that develop in adults. Childhood cancers are often the result of DNA changes in cells that take place very early in life, sometimes even before birth. Unlike many cancers in adults, childhood cancers are not strongly linked to lifestyle or environmental risk factors but childhood cancers tend to respond better to treatments such as chemotherapy. Childhood cancer needs more attention due to high cost of treatment and emotional, psychological trauma to the family. In recent years survival in childhood cancers has improved tremendously through multidisciplinary team approach. For cures of 70-80 % of cases parents will play important role to detect the symptoms of disease and early detection. Early intervention brings high cure rate. It is estimated that risk of cancer is about 1 in 600 for the rate. It is estimated that risk of cancer is about 1 in 600 for the children below 14years of age.1

N.C.I report is that the most common types of cancer diagnosed in children and adolescents are leukaemia, brain and central nervous system tumours, lymphoma, rhabdomyosarcoma, neuroblastoma, Wilmstumor, bone cancer, and gonadal (testicular and ovarian) germ cell tumors.2

Treatment of cancer depends on stages of cancer. So broadly induction of remission and consolidation to attain disease control and maintenance treatment to avoid recurrence and it includes chemotherapy, radiation therapy and surgery or combined of all.

The common side effects of Chemotherapy are fatigue, upper respiratory tract infection, pain (e.g. headache, muscle pain, stomach pain etc.), sores in the mouth and throat, diarrhoea, nausea & vomiting, constipation, blood disorders among of all upper respiratory tract infection is common, and also WBC & RBC will low. Due to this child will get low immunity and prone to get infection by air or contamination. Appetite will decrease and it leads to weight loss, malnutrition, loss of muscle etc. So all factors lead to get upper respiratory tract infections recurrently.

L.Satyanarayana, SmithaA and PreetiL.S., (2013), conducted study in Delhi from Secondary data source from National Cancer Registry Program. They found that cancer incidence ranged from 18.6 per millionto159.6 per million for boys and11.3 per million to112.4 million for girls and highest in southern region and18.6 per million for boys and 11.3 per million for girls in northern region.3

The American childhood cancer organization has provided the incidence statistics on childhood cancer i.e. leukemia-40%, Hodgkinlymphoma-4%, Boneandjoint-6%, kidney and renalpelvis-7%, Non-Hodgkinlymphoma-7%, Softtissue-9%, and Brain CNS-27%. So more than 85% of children cancers of leukaemia, brain and soft tissue cancers. So chemotherapy is the major treatment for these cancers. This treatment side effect is reduced WBC count in blood which makes children prone to upper respiratory tract infections.4

Koskenvuo M. and team in (2008), seen that 44% child facing this URT infection those are undergoing chemotherapy. Out of that Rhinovirus 22%, Respiratory syncytial virus11%, human Bocavirus5%, Influenza Avirus4% and general symptoms will be cough, fever and running nose.5

Parents play main role for prevention of upper respiratory tract (U.R.T.) infection. Knowledge of parents should have adequate quantities regarding chemotherapy and its side effect specially how it will put impact in immunity of children and they can prevent by applying preventive measures like using mask, habits of washing hands regularly, minimizing visitors, sterile nutrition practices, breastfeeding practices, by reducing contact with people whom they have infection etc. So parents should have knowledge regardingthesefactorstopreventinginfectionthroughdirectcontactorindirectcontact of microorganism and parents can help to improve the health status of children for better health.

Material and Methods:

This was a convenient sampling technique study. The study was conducted in Private oncology hospital; Hyderabad, India with 500 bedded hospitals with 35 bedded pediatric units. 30 parents are allocated by convenient technique. Those are not willing to participate and not present at the time of data collection are excluded from the study. Formal approval was obtained from the Institutional review board and from medical superintendent of that hospital to conduct study. Both written and verbal information about the study were given in local language and English language to parents who participated in the present study

The questionnaire for present research study comprises of three sections. Section 1: Demographic Information was collected through written structured questionnaire. Section II: Chemotherapy and side effects and Section III: Structured knowledge questionnaire regarding prevention of upper respiratory tract infections. 30 questions are there with each carries one mark and total 30 marks. Validity obtained from 6 experts.

Intervention:

The study group underwent pretest followed by structure teaching programme and then post-test.Questionnaire consists of 30 items each question is given 3 options including one correct option. Correct answer carries one mark and wrong answer carry zero mark. The maximum score was "30" and minimum score was "0". Level of knowledge was categorized as a. Below average knowledge-0-14marks (<50%), b.Averageknowledge - 15-22 marks (50-75%) and c. Above average knowledge - 23-30 marks (>75%). Content validity of the tool was obtained from 6 experts, in the field of Oncology and nursing. The tool was modified based on the suggestions and guidance from the experts. The reliability of the tool was established by test-retest method and the score were computed using Karl Pearson Correlation Coefficient and the obtained "r" value was 0.90, which indicates that the tool was highly reliable for conducting the study. The permission was obtained.The study was conducted from 28/4/16 to 5/5/16. The parents were selected conveniently and was explained the purpose of the study and consent was taken from them. Privacy was provided throughout the data collection period. On day 1 Pre-test was conducted using self-administered structured questionnaire followed by STP and it took one hour to collect the data, 4 hours for STP. On 7th day post test was conducted by using same structured questionnaire for 45min.The data was analysed by Descriptive statistics like Frequency, Percentage, Mean; Standard Deviation and Inferential statistics such as paired t-test was used to evaluate the effectiveness of STP and chi-square test to associate the knowledge scores of parents with their selected demographic variables.

Findings of the study:

Demographic findings of the present study were among parents of children those are undergoing chemotherapy, that is 10% of parents are between age <25 years, 17% of parents are in between age of 26-35 years, 3% of parents are in between age of 36-40 years. With regard to gender 73.4% were females and 26.6% were males. Regarding religion 26.6% are Muslims, 63.4% are Hindus and 10% were Christians. Regarding qualification 53.3% were primary, 30% were secondary, 10% were graduate and 6.7% were post-graduate and above. Regarding occupations 33.4% were homemakers, 26.6% were doing private job, 16.6% were doing government job and 7% are other occupations. With regard to source of information13.3% were received information through neighbours/Friends, 70% through health care professionals, and 16.7% through other sources.

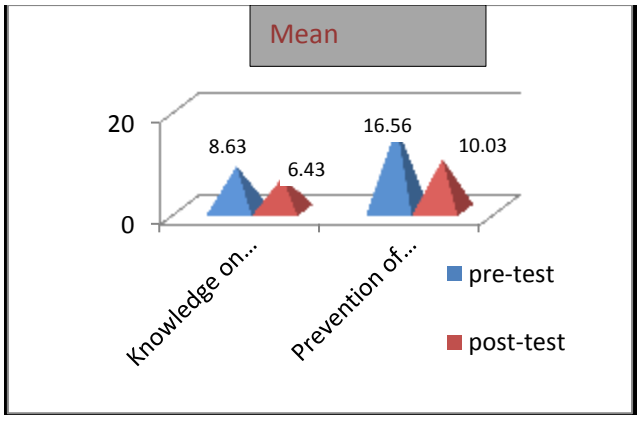
Frequency and percentage distribution of pre-test knowledge scores of parents regarding prevention of upper respiratory tract infection was 44.66% had below average knowledge and 53.34% had average knowledge.Frequency and percentage distribution of post-test knowledge scores of parent's regarding prevention of upper respiratory tract infection. In 96.6% had above average knowledge and 3.4% had average knowledge.

There was significant association between the level of pre-test and post-test knowledge scores on prevention of upper respiratory tract infections.

Specific area	Pre test		Post test		't' value
	Mean	S.D	Mean	S.D.	
chemotherapy and its side effects	8.63	2.97	16.56	1.43	13*
Prevention of upper respiratorytract infection	6.43	2.38	10.03	0.80	8*

*significant<0.05

DOI: 10.18535/ijsrm/v5i7.34



Graph 1: **Mean Pre-test and Post-test Scores of Knowledge on chemotherapy and prevention of URTI**

Conclusion:

The present study was aimed to assess the effectiveness of structured teaching.The scorestract infection of children those are undergoing chemotherapy at selected hospital, Hyderabad.Obtained 44.66%had below average knowledge and 53.34% had average knowledge, and in post-test 96.6%had above average knowledge and 3.4% had average knowledge. Hence the educationalprogramme on prevention of upper respiratory tract infection of children those are undergoing chemotherapy at selected hospital, Hyderabad.Intervention was seen very effective in improving the knowledge.

Key words: Effectiveness, Structure teaching programme, Upper respiratory tract infection, children.

DISCUSSION:

The study findings have been discussed in terms of objectives stated and hypothesis.

1. To assess the knowledge regarding prevention of acute respiratory tract infection among parents of children less than 14 years who are undergoing chemotherapy.

In pre-test 44.66% of parents had below average knowledge and 53.34% had average knowledge whereas in post-test 96.6% had above average knowledge and 3.4% had average knowledge regarding prevention of upper respiratory tract infection. The study findings were supported by a survey conducted by Christianna Vliora, GaryfalliaSyridou and Vassiliki Papaevangelou (2014), Conducted a study on "Viral Respiratory Infections in Children Receiving Chemotherapy or Undergoing Stem Cell Transplantation. They found that 39% of paediatric oncology patients had a concurrent bacterial infection.22.7% of children with viral pneumonia had bacterial co-pathogens and So they concluded that caregivers and family members in close contact with children with cancer should be educated on respiratory infections and "cocooning", i.e. the indirect protection of the susceptible person through their own vaccination.[5]

2. To evaluate the effectiveness of structured teaching program on knowledge regarding prevention of acute respiratory tract infectionamong parents of children less than 14 years who are undergoing chemotherapy.

Mean knowledge score was increased from 8.63 in pre-test to 16.56 in post-test whereas the S.D. in pre-test was 2.97 and 1.43 in post-test. Paired' test calculated value was 13 which was more than the table value (1.699) at 0.05 level of significance at 29 degrees of freedom. By this researcher concluded that the administered structured teaching programme on prevention of upper respiratory tract infections was effective.

The study findings were supported by a quasi-experimental study conducted by Sherene G Edwin (2009) on "Effect of Planned teaching Program on knowledge, attitude and knowledge on practices of Acute Respiratory Infections among mothers". They found that planned teaching program was found to be effective in improving the knowledge, attitude and knowledge on practice of mothers regarding ARIs.[6]

3. To find out an association between knowledge on prevention of respiratory tract infection with selected demographic variables of parents of children undergoing chemotherapy such as age, educational qualification.

There was association found in Gender and source of previous knowledge in pre-test and post-test knowledge scores of parents.

Bibliography:

1. GhaiOP.Essentialpaediatrics.3rd.edition. Interpretpublisher; New Delhi:1993.Pg. (371-372). National cancer institute. Cancer in children and adolescents. 2014. www.cancer.gov/cancertopics/...types/...
2. SatyanarayanL,SmithaAsthanaandPreetiLabaniS.Childhoodcancerincidence in
3. India:Areviewofpopulationbasedcancerregistries. NewDelhi:Indian Paediatrics; 2014. www.Indianpediatrics.net/.../mar-218-22...
4. Surveillance, epidemiologyandend results program.1975-2003.Division ofcancer controland pop. Sciences. NCI.2006.
5. Satya Narayana L, Asthana S and Labani S P.Childhood cancer incidence in India: a review of population-based cancer registries. Department of Paediatrics, LN Hospital, New Delhi; 2014.http://www.ncbi.nlm.nih.gov/pubmed/24736911
6. Christiana Vliora,GaryfalliSyridouand Vassiliki Paraevangelou.Viral respiratory infections in chilren receivingchemotherapyorundergoingstem cell transplantation. Clinicalmicrobiology: open access. Greece. Third Department of paediatrics. 2014 (Feb.) 03. www.Esciencecentral.org/journal/…
7. ShereneG Edwin. Effectof planned teachingprogram on knowledge,attitude and knowledgeon practicesof Acute Respiratoryinfections amongmothers. The NursingJournal ofIndia.New Delhi:TNAI; 2009(Nov.) 11.