EFFECTIVENESS OF CHILD TO CHILD APPROACH TO HEALTH EDUCATION ON PREVENTION OF WORM INFESTATION AMONG CHILDREN OF SELECTED PRIMARY SCHOOLS IN MANGALORE

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Abstract : Worm infestation a common childhood problem, which affects growth and development of children and has a close relationship with the socio demographic and ecological factors like poverty, illiteracy, poor personal and environmental hygiene. Through children the entire family may eventually get worms and suffer. Therefore interventions in this regard should be carried out aiming at children, to develop healthier habits through creating awareness through child friendly and innovative ways. Schools have the advantage of being a common platform providing systematic education for development of children. An evaluative study using quasi experimental research design was used to determine the effectiveness of traditional and child to child approach of health education among 100 primary school children selected through cluster sampling technique. Health education was provided to a group of children using traditional methods. To another group health education was provided through peers trained and motivated by the investigator to carry out peer interaction. The study found the mean difference in the knowledge scores of children significant in traditional health education group ($t=5.61$, $p<0.05$), child to child group ($t=6.42$, $p<0.05$). A significant difference in the post health education knowledge scores were observed ($t=2.06$, $p<0.05$). A significant association was found between pre health education knowledge scores and education of parents ($\chi^2=9.74$, $p<0.05$). The study concludes that through proper training of peers and motivation the child to child approach to health education improves the knowledge level of children on common issues concerning children in an effective way.

Keywords : Child to child approach, Health education, School health education

Introduction :

Health education promotes health, prevents and reduces suffering, prolongs life with quality and less cost. Timely health educations at frequent intervals help individuals to achieve good health through their own action and effort. Primary school age being the moldable period is the most appropriate age to inculcate healthy habits to lead a civilized life in society. It's an age of communication without prejudices and fear, where children interact freely with peer and family alike. Schools are where children

spend most of the time of their formidable age which is best suited for imparting health messages. Schools are the strongest social and educational institution with profound influence

on children, their families and neighborhood. Invariably almost all children at some time or other attend school during their lives. Ultimately, the development of children becomes the cumulative effort of family, school and peer interaction. Therefore health messages can be transmitted and passed on by teachers to children, children to peer group, sibling and their parents.

According to WHO (1994) schools have an unprecedented opportunity to improve the lives of younger people. It advocates for use of energies of young people and children towards health promotion. Conceived by Institute of child health in 1979, the scope of child to child has widened from sibling care to child power (Aarons & Hawers, 1988). Child to child approach to health education is an innovative, simple, cost effective and participatory approach that makes use of the potentials of children to maximize the spread of health messages. It is an active method that

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encourages learning by activity and fun. They interact with each other to learn, influence adults. It links what is learnt in classroom with what we do out of the class and at home.¹It can be of particular relevance to India as children take back messages to parents who in most cases are less literate than their children.

WHO (1996) estimated that about 1400 million worldwide are infested with at least one type of intestinal worm. The common helminths found in India are roundworm, hookworm, pinworm, tapeworm commonly acquired orally, per cutaneously or both routes. Prevalence of intestinal worms in India varies from 5-76% in different places. In DK district ascariasis superseded all other helminthes with an incidence of 48.33%² Worm infestation being the most common problem in children due to its close association with health practices and sanitary conditions is therefore of special relevance for the study.

It is well known in the poor neighborhoods of suburban Mangalore people live in unhygienic conditions. The investigators during their field experiences in such communities have come across the problems associated with such conditions, the most predominant among them- worm infestation. Hence the study was conceived to determine the effectiveness of child to child approach in comparison to the traditional approach to health education on worm infestation.

Material and Methods:

An evaluative approach using quasi experimental research design was employed to determine the effectiveness of traditional and child to child approach of health education .Hundred primary school children (class v) of four Kannada medium schools of Mangalore taluk were selected through cluster sampling technique. Ethical clearance was obtained and Official permission was obtained from the school authorities. The tool structured knowledge questionnaire had 40 items each with a score of '1'. Validity and reliability of the tool was ascertained($r=0.83$), tools were translated. Health education materials and teaching aids were developed. Informed consent was obtained. Pre assessment of knowledge was taken. Group one (from 2

schools) received health education from investigator and motivation to interact with classmates. In the second group (from 2 schools) health education was provided by the peers who were trained and motivated to interact and teach. On 8th day the knowledge of both groups were reassessed using structured knowledge questionnaire.

Results:

Sample characteristics: Majority (61%) were of age 10years,more than half (57%) were males, 57% belonged to Muslim religion, half (51%) were of income group Rs 2001-3000, more than half had television (55%), 53% parents had primary education, about half (45%) were working for daily wages.

Differences in knowledge scores of children of 2 groups after health education:

Table 1: Difference between mean pre and post health education knowledge scores of group I and group II

Groups	N	Pre Mean	Post Mean	Mean diff	SD	SE	t
I(Routine)	50	23.72	28.14	4.42	5.57	0.79	5.61*
II(child to child)	50	21.56	25.9	4.34	4.78	0.68	6.42*

Max score=40, $t_{(49)}=2.68$, $p<0.05$

The study found a significant improvement in the mean knowledge scores of children of two different groups .ie : health education group- I ($t=5.61$, $p<0.05$), child to child group- II ($t=6.42$, $p<0.05$).

Table 2: Difference between the mean post test knowledge scores of Group I and group II
N=50+50

Groups	Post Mean	Mean diff	SD	t
I(Routine)	28.14	2.24	5.95	2.06*
II(child to child)	25.9		4.91	

Max score=40, $t_{(98)}=1.98$, $p<0.05$

A significant difference in the post health education knowledge scores were observed ($t=2.06$, $p<0.05$).

Other findings:

A significant association was found between pre health education knowledge scores and education of parents($\chi^2=9.74$, $p<0.05$).

Discussion:

This study to compare the effect of two approaches of

health education among school children found that the traditional approaches to health education by the investigator as well as the child to child approach were effective in enhancing knowledge of children. The findings of this study are supported by few studies. A study on effect of child to child approach on worm infestation among 238 children selected purposively found it effective.³ Another study on practice aspects increased the quality of life of adolescents with asthma.⁴ Yet another study on effect of child-to-family communication of health messages regarding child survival over a period of 3 months showed 61.2% increase in knowledge of children, 62.6% increase in knowledge of respondents of family, with 53.9% expressing children as their source of information.⁵ Similar study regarding impact of training on child caregivers showed there was a significant change ($p < 0.001$) in their knowledge and skills.⁶ Another study found there was no significant association between variables like education of parents, religion, and exposure to television.⁷ The present study shows there is a significant association between

knowledge scores and education of parents.

The identified limitations of the study were inability to ensure specified time for peer interaction during school hours. Generalization of the study is limited as the study involves a small group of children of poor, suburban backgrounds studying in government primary schools. Similar studies could be conducted among children of diverse backgrounds using a larger sample on various topics of public health interest not only in terms on improving the knowledge, but more importantly in improving health related practices.

Conclusion :

More health information could be disseminated by using the innovative methods of health education using the focus groups-children-to- children, child-to- mother, child-to-family ,women-to-women approaches. However care should be taken to train the peer educators with due attention and continuous motivation to get better results.

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