International Journal of Multidisciplinary Research and Development
Online ISSN: 2349-4182, Print ISSN: 2349-5979, Impact Factor: (RJIF 5.72)
www.allsubjectjournal.com
Volume 3; Issue 4; April 2016; Page No. 50-52

Knowledge and attitude on effects of environmental pollution on health

[1] Mrs. Kanakalakshmi, [2] Mrs. P. Mogileeswari, [3] Ms. Ruth Grace. M
[1] M.Sc Nursing, Asst. Professor, MSN Department, Narayana College of Nursing, Nellore.
[2] M.Sc Nursing Asst. Professor, OBG Department, Sree Narayana Nursing College, Nellore.
[3] M.Sc Nursing Asst. Professor, CHN Department, Sree Narayana Nursing College, Nellore.

Abstract
Introduction: Environmental pollution is "the contamination of the physical and biological components of the earth/ atmosphere system to such an extent that normal environmental processes are adversely affected"
Aim: This study is conducted to assess the knowledge and attitude on effects of environmental pollution on human health among school children aged between 10-14 years.
Materials and Methods: Descriptive research approach and survey research design were adopted to conduct the study in Camford public school at Tirupathi among 100 school children selected by simple random sampling technique. Data was collected using structured questionnaire. Data was analyzed using descriptive and inferential statistics.
Results: The study showed that mean knowledge score on general aspect of environmental pollution is 3.35 (41.87%), causes and sources of environmental pollution is 3.31 (39.12%), effects of environmental pollution mean score is 4.4 (40%), and mean score of 1.37 (34.25%) on preventive aspect of environmental pollution.
Conclusion: Findings of the study showed that majority of the school children had inadequate knowledge i.e., 82% on effects of environmental pollution on human health.

Keywords: Environmental Pollution, Health.

1. Introduction

"Environmental pollution is an incurable disease. It can be only prevented" – Barry Commoner.

Environmental health is that aspect of public health that is concerned with the forms of life substances, forces and condition in the surroundings of man that may exert an influence on man's health and wellbeing. Environmental pollution is "the contamination of the physical and biological components of the earth/ atmosphere system to such an extent that normal environmental processes are adversely affected"

Pollution is the introduction of contaminants into a natural environment that causes instability, disorder, harm or discomfort to the ecosystem i.e. physical systems or living organisms. Pollution can take the form of chemical substances or energy, such as noise, heat or light. One of the greatest problems that the world is facing today is that of environmental pollution, increasing with every passing year and causing grave and irreparable damage to the earth. There are four major types of environmental pollution. Air pollution, water pollution, soil pollution,Noise pollution.. All these types of environmental pollution have an impact on the living environment. These effects may range from mild discomfort to serious diseases such as cancer to physical deformity.

Ruth Grace M (2015) [12] stated that children are the most vulnerable in the society. Growth of the children is very important as slight deviation in life styles cause long term effects on the health of the children. Children's health forms major component of family health. It depends upon the family's physical and social environment, which includes its lifestyles, custom, culture, traditional habits and especially child rearing knowledge which involves the knowledge regarding growth and development.

Ruth Bennett. V describes about the environmental hazards affecting pregnancy and the importance of its avoidance in the book for midwives. And the avoidance of chemical substances likes mercury, lead, cadmium which will cause mental retardation and hyperactivity in children. The noxious substances also should avoid in pregnancy because it causes adverse effect to fetus

Need for the Study

The World Health Organization (WHO) has observed that over 70 percent of all human ailments are influenced by environmental deterioration. The environmental problems in India are growing rapidly. The increasing economic development and a rapidly growing population that has taken the country from 300 million people in 1947 to more than one billion people today is putting a strain on the environment, infrastructure, and the country's natural resources. Industrial pollution, soil erosion, deforestation, rapid industrialization, urbanization, and land degradation are all worsening problems. Overexploitation of the country's resources be it land or water and the industrialization process has resulted environmental degradation of resources. Environmental pollution is one of the most serious problems facing humanity and other life forms on our planet today. India is now world's third biggest carbon dioxide emitting nation after China and US. The World Health Organization estimates that about two million people die prematurely every year as a result of air pollution.

Schell LM, Gallo MV *et al*., (2006) conducted a study on environmental pollution on pregnant women describes that, Pollution is a worldwide problem. Many studies have found that some pollutants have detrimental effects on human growth, particularly prenatal growth. Noise stress from transportation

sources is related to reduce prenatal growth. Studies of humans exposed to polychlorinated biphenyls, one of the persistent organic pollutants, have reduced size at birth, advanced sexual maturation and altered hormone levels related to thyroid regulation.

Problem Statement

A study to assess the knowledge and attitude on effects of environmental pollution on health among school children aged between 10-14 years at Selected Schools, Tirupati.

Objectives of the Study

1. To assess the knowledge and attitude on effects of environmental pollution on human health among school children aged between 10-14 years.
2. To associate the knowledge and attitude with selected Socio-demographical variables

Hypothesis

H_1: There will be significantly inadequate knowledge among school children of age group 10-14years regarding the effects of environmental pollution on human health.

H_2: There will be significant association between knowledge scores of school children with the selected demographical variables.

Materials and Methods

Research Approach: Descriptive research approach

Research Design: survey research design.

Study Setting: The study was conducted in Camford public school at Tirupathi.

Sample Size: 100 school children

Sampling Technique: simple random sampling technique.

Sampling Criteria:

Inclusion Criteria

- School children aged between 10 to 14 years.
- School children who knows Telugu and English.
- School children who are willing to participate.

Exclusion Criteria

- School children who are not available during the time of data collection.
- School children who are not studying in public schools.

Description of the Tool

It consists of two sections.

Section 1 - Socio demographic profile.

Section II – structured questionnaire on effect of environmental pollution on human health.

Results and Discussion

Table 1: knowledge level of school children on effects of environmental pollution on human health N=100

Area of knowledge	NNo. of items	Pre test Knowledge		
		Mean score	SSD	MMean %
General information on environmental pollution	8	3.35	1.38	41.87
Incidence and causes of environmental pollution	8	3.13	0.79	39.12
Effects of environmental pollution on human health	10	4.4	1.37	40
Prevention of environmental pollution	4	1.37	0.77	34.25

Above table reveals section wise knowledge of children regarding effects of environmental pollution on human health, the mean knowledge score on general aspect of environmental pollution is 3.35 (41.87%), causes and sources of environmental pollution is 3.31 (39.12%), effects of environmental pollution mean score is 4.4 (40%), and mean score of 1.37 (34.25%) on preventive aspect of environmental pollution.

Table 2: Association of Knowledge of Children with Selected Demographic Variables.

So. no.	Demographic variable	No	Knowledge		χ^2	DF	Result
			Above Median	Below median			
1	**Age**						
	a) 10-11yrs	24	20	4	4.55	3	NS
	b) 11-12 yrs	30	16	14			P=7.815
	c)12-13 yrs	21	5	16			
	d) 13-14yrs	25	12	13			
2	**Gender**						
	Male	28	20	8		1	S
	Female	72	40	32	3.97		P=3.841
3	**Religion**						
	a)Hindu	39	14	25	6.22	3	NS
	b)Muslim	29	10	19			P=7.815
	c)Christian	12	7	5			
	d)Others	20	16	4			
4	**Residence**						
	a) Urban	36	22	14	4.53	2	NS
	b)Semi-urban	41	30	11			P=5.99
	c) Rural	23	19	4			
5	**Disposal of waste**						
	Dust bin	44	9	35	10.56	2	S
	Throwing out	32	12	20			P=7.815

	Store at a place	24	6	18			
6	**Occupation of parents**						
	Daily wages	43	20	23	4.31	3	NS
	Factory workers	24	16	8			P=7.815
	Mason	16	10	6			
	Former	17	10	7			
7	**Standard of living**						
	Pukka	35	26	9	6.01	2	S
	Semi pucca	27	16	11			P=5.99
	kaccha	38	20	18			
8	**Source of information**						
	Television or Radio	8	2	6	7.82	3	S
	Teachers	8	1	7			P<7.815
	News paper	7	2	5			
	Health Personnel	77	26	51			

The above table shows the association between socio-demographic variables and knowledge of children on effects of environmental pollution on human health. Association with the disposable of waste (p=7.815) is found to be significantly associated with Knowledge scores. These types of association are statistically significant and it was calculated by Pearson chi square test / Yates corrected chi square test.

Interpretation and Conclusion

Findings of the study showed that majority of the school children had inadequate knowledge i.e., 82% of the children had inadequate knowledge, 18% had moderate knowledge and non the samples had adequate knowledge on effects of environmental pollution on human health. Gender, type of disposal of waste, standard of living and source of information was found to have a highly significant association with the level of knowledge. Age, Religion, Area of residence, Occupation of parent were not associated with the level of knowledge. This proved there is a significant association between the level of knowledge and the selected demographic variables.

Effects of environmental pollution on human health as a significant health problem among school children. The condition is highly treatable and currently under recognized among the elderly patients. Efforts from nurses to prevent the ill health caused by the environmental pollution are needed. Because stress is major source of potentially treatable morbidity in older people, increased efforts are needed to ensure access to appropriate treatment across all sub groups of older and younger people and to remove the economic barriers to treatment.

Recommendations

The study can be replicated in various other settings with larger samples in order to generalize the result.

- Interventional studies can be conducted to find out the effectiveness of STP on knowledge regarding effects of environmental pollution on human health among school children.
- Comparative studies can be conducted to assess the knowledge regarding effects of environmental pollution on human health among private and government school children.
- Self-instructional module can be prepared in order to educate school children regarding effects of environmental pollution on human health.
- Experimental studies can be conducted with an larger group of school children using planned teaching program as an intervention.

References

1. Advice for pregnant women, 2010. Available from URL: http //www.pregnancyarticle.com.
2. Mathew Paul. Metro partners in women's health, Pregnancy information environmental hazards affecting pregnancy. Available from URL:http://www.womensdocs.com.
3. Sara Mariam. Journals of midwifery and women's health challenges. Available from URL:http://www.midwife.org.
4. Exposure of pregnant woman to teratogens. Available from URL:http://www.healthline.com.
5. Exposure of pregnant women to noise. Available from URL:http://www.nonoise.org.
6. Exposure of pregnant women to alcohol. Available from URL:http://www.che-tox.com.
7. Passive smoking affecting pregnancy. Available from URL:http://www.medicalnewstoday.com.
8. Radiation on pregnant women. Available from URL:http://www.perinatology.com.
9. Effect of air pollution on pregnant women. Available from URL:http://www.mediscope.com.
10. Ruth Bennett, *et al*. MYLES Textbook for midwives. London: churchill livingstone, 1999, 152-153.
11. Mogileeswari P. Maternal Fetal Medicine. Narayana Nursing Journal. 2015; 3(3):15-16.
12. Ruth Grace M. Assessment of Knowledge about growth and development among mothers of toddlers. Narayana Nursing Journal. 2015; 3(2):37-39.