Volume-4, Issue-11, Nov-2015 • ISSN No 2277 - 8160

Research Paper | Medical Science

Knowledge and practice regarding environmental sanitation and hygiene among general population: A cross sectional survey

Mrs. Aswathy S K

Lecturer, Community Health Nursing Department, Sree Gokulam Nursing College, Trivandrum-695607, Kerala

ABSTRACT

Sanitation is a fundamental health service without which there cannot be any improvement in the state of community health. A descriptive survey was conducted at Nellanadu Panchayath in Trivandrum district which aimed to assess the level of knowledge and practice regarding environmental sanitation among general population and its association with socio demographic variables and its correlates. Data were collected from 150 residents of Nellanadu Panchayath, recruited by convenient sampling, using a pretested validated and reliable structured knowledge questionnaire developed by investigators and standardized Briscoe's scale. Results showed that majority of (57%) subjects had average knowledge and 49% had both fair and good standard of practice related to environmental sanitation and hygiene. There was a weak positive correlation between level of knowledge and standard of practice($r=0.3$, $p<0.001$). However there was no association between knowledge and practices of environmental sanitation and hygiene with selected socio-personal variables.

Key words : Knowledge; Practice; environmental sanitation; hygiene.

Introduction

Sanitation is "the means of collecting and disposing of excreta and community liquid wastes in a hygienic way so as not to endanger the health of individual and the community as a whole". Sanitation is one of the determinants of quality of life and human development index. It is a fundamental health service without which there cannot be any improvement in the state of community health. It consists of both public and private elements, and the individual's hygiene can affect the whole community. Improving the sanitation within a community leads to an improvement in health. Thus sanitation is an integral component of environmental protection which ensures a productive life.[1]

One of the targets of Millennium Development Goal (MDG) 7, which is concerned mainly with environmental sustainability, is to halve the number of people who do not have sustainable access to safe drinking-water and basic sanitation by 2015. This target requires coverage of 75% of the population by improved water sources. In the area of sanitation, the target is 66% coverage by improved services by 2015.[2] Health team should identify environmental problems and implement the measures to improve basic sanitation in and out of communities to achieve this goal.

Report of community survey by B Sc nursing students showed that, most of the houses had adequate sanitation facilities but open field defecation and lack of hand hygienic practices was prevalent, especially among under privileged groups. Since nurses have a vital role in promotion of health and prevention of diseases in the community, this study was conducted to assess the knowledge and practice regarding environmental sanitation and hygiene among public. Such extensive assessments will help to plan and implement targeted interventions in the community to improve the standards of Public health.

A survey report from Harayana showed that latrines were used only by 49.8% and 21.4% of the population in Raipur Rani and Kheri villages respectively. Respondents believed that open air defecation did not spread any illnesses (18-25%), but many told about aesthetic problems due to smell or filth (42,33% a kheri and 38,33% Raipur Rani) [3].Results of a study from villages of Madhya Pradesh among 100 households (n= 494 randomly selected individuals) showed that majority (61%) utilized well water for drinking, nearly half disposed garbage nearby(47%) / behind (42%) the house and went to open fields for defecation (68%). This practice also led to occurence of certain diseases, especially in the rainy season[4].

Materials & Methods

The study was conducted using a cross sectional survey design with 150 samples selected using convenient sampling technique from Nellanadau Panchayath in Trivandrum district. Samples were adults with age above twenty years and who can comprehend Malayalam.

Self report data were collected from subjects by administering a pretested, validated (three experts) and reliable (r= 0.7, split –half method) questionnaire to assess knowledge regarding environmental sanitation and hygiene. It consisted of two sections:

Section A on Socio-personal data and section B for knowledge assessment (consisted of twenty items with a maximum score of twenty). Observation of standard of practice regarding environmental sanitation and hand hygiene was done by using Standardized Briscoe's scale [5] (consisted of seven items with a maximum score of 21). Permission was obtained from concerned authorities. Informed written consent was obtained from participants. Data were collected by self administered questionnaire followed by observation of environmental sanitation and hygienic practices.

Results

Data were analyzed using descriptive (frequencies, percentages, Pearson's correlation) and inferential statistics (χ^2 test) by SPSS trial v19.0 . Findings are presented based on the objectives

Table 1: Frequency and Percentage distribution of subjects based on socio-personal characteristics

Sl no	Socio-personal variables		Frequency (N=150)	Percentage
1	Gender	Male	26	17%
		female	124	83%
2	Age	<30 yrs	7	5%
		31-40	21	14%
		41-50	54	36%
		>51	68	45%
3	Marital status	Married	127	85%
		Single	4	2%
		widow	19	13%
4	Education	Illiterate	17	11%
		Secondary	77	51%
		Higher secondary	53	36%
		Degree	3	2%
5	Occupation	Self employment	113	75%
		Government job	4	3%
		Private job	33	22%
6	Type of ownership of house	own	140	93%
		Rented	10	7%
7	Monthly income	<1500	87	58%
		1501-10000	55	37%
		>10001	8	5%

Knowledge and standard of practice regarding environmental sanitation and hygiene

Majority of the subjects (57%) had average level of knowledge regarding environmental sanitation and hygiene and minimum of (11%) had poor level of knowledge. Figure 2 shows that Majority of the subjects 49% had both fair and good standard of practice regarding environmental sanitation and hygiene.

There was no significant association between level of knowledge & standard of practice with selected socio-personal variables (p>0.05)

Correlation between level of knowledge and standard of practice:

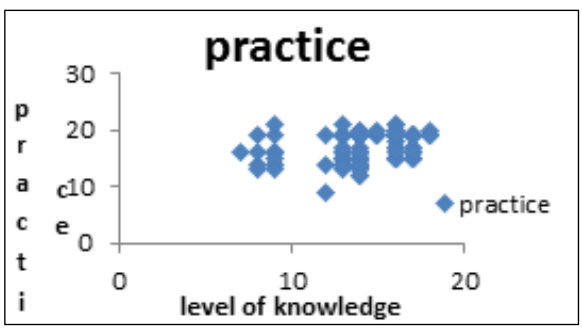

Figure 1: Scattered diagram shows Correlation between level of knowledge and standard of practice

There is a weak positive correlation between level of knowledge and standard of practice regarding environmental sanitation and hygiene(r=0.3, p<0.001).

Discussion:

This study reports majority of the subjects (57%) had average level of knowledge and minimum of (11%) had poor level of knowledge regarding environmental sanitation and hygiene. Nearly half (49%) of the subjects had fair and good standard of practice regarding environmental sanitation and hygiene. There is a weak positive correlation between level of knowledge and standard of practice regarding environmental sanitation and hygiene.

The study results have been supported by the findings, among secondary school children in Nigeria which indicated that the student's knowledge of environmental hygiene was moderate for all classes of 47%. The attitude and practice on hygiene was also found to be high (91.40 ± 1.16%)

Some contradictory literature also available, survey findings from rural Tamilnadu which reported that 74.2% of respondents had poor practices in using latrine and hand washing with soap after defecation and before meals was common only in children under 15 years (86.4%) [7].

Based on the findings of the study a pamphlet was developed regarding environmental sanitation and hygiene after consultation with experts. Teaching sessions were conducted in the community from where data were collected, and pamphlets distributed to all households. This need based education helped the people to improve their sanitation and hygienic practices.

Sanitation is an integral component of environmental protection which ensures a productive life. The study revealed that majority of the subjects had average knowledge and both fair and good practice regarding environmental sanitation and hygiene. There were a weak positive correlation between level of knowledge and standard of practice regarding environmental sanitation and hygiene(r=0.3, p<0.001). The study emphasized regarding the need for regular education and motivation of community for practicing good sanitation and hygiene.

REFERENCES

1. Park K. Park's Textbook of Preventive and Social Medicine. 20th edition. Jabalpur: M/S Banarsidas Bhanot Publishers; 2009. 2. Bachhuber, D, Conrad J, Shadix, T. Developing water: The socio-political constraints to providing clean drinking water in rural India. India: Whitman Direct Action (WDA). 2008 3. Amarjeet singh and Aurvinder kaur Arora. Knowledge attitude and practice of villagers regarding sanitary latrine in northern India. Indian journal preview society medicine. 2003; 34(3-4): 119-23 4. Kamla-Raj, Pankaj Dwivedi and A.N. Sharma. Hum. Ecol., 22(1): 7-10 (2007).A Study on Environmental Sanitation, Sanitary Habits and Personal Hygiene among the Baigas of Samnapur Block of Dindori District, Madhya Pradesh.http://www.krepublishers.com/02Journals 5.K E Elizebath.Text book of child nutrition. Mumbai: Jaypee brothers :2004:324 6. Ebong RD. Environmental health knowledge and practice survey among secondary schoolchildren in Zaria, Nigeria. Environment Health Perspective. 1994 Mar; 102(3): 310-2 7. Kalyan B. Water handling, sanitation and defecation practices in Rural Southern India: A knowledge, attitude and practices study. Translocations of the Royal Society of tropical Medicine and Hygiene; 2007 Nov; 101(11): 1124-30. Available from: http://www.tropicalmedandhygienejrnl.net