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A Study to Evaluate the Effectiveness of Planned Video Assisted Health Educational Programme on Knowledge of Health Hazards and its Prevention among Selected Sanitary Workers of City Corporation Kalaburagi District of Karnataka State

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Abstract

Sanitation workers are the backbone of the civic cleaning system. In a developing country, In **India** we have approximate 5 million sanitation workers according to the latest data. Sanitary worker is a person responsible for cleaning, maintaining, operating, or emptying the equipment or technology at any step of the sanitation chain. Sanitation workers were exposed to a number of environmental and occupational hazards leading to musculoskeletal disorders, exposure to harmful gases, respiratory problems, headache, dermatological problem, gastrointestinal and leptospirosis during work. Keeping the above facts in view, the researcher took up the task to assess the knowledge of sanitary workers

Objectives of the Study:

1. To assess the knowledge on prevention of health hazards among selected sanitary workers.
2. To implement and evaluate the planned video assisted health educational programme.
3. To find the association between the knowledge with their selected demographic variables.

The research hypothesis of this study was formulated to test the association between knowledge of sanitary workers regarding the prevention of selected occupational health hazards and their demographic variables.

The review of literature was done and organized under following headings. Studies related to health hazards among sanitary workers, effectiveness of planned video assisted health educational programme in general and knowledge of sanitary workers. The conceptual frame work for this study was based on Lewin and Becker's health belief model.

Methodology: Research approach used for this study was quasi experimental approach. One group pretest – post research design was used for this study. 100 sanitary workers at Kalaburagi City Corporation were samples

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of this study. Simple random sampling technique was used. A questionnaire was developed and used for data collection. The data collection procedure was held in three phases. In the first phase, knowledge on prevention of occupational health hazards was assessed. During the second phase, The Planned video assisted health educational program was administered to the same group with same structured interview was taken after 8 days of the Planned video assisted health educational programme has two sections:

Results: In the results of the study, major findings indicated that the Planned video assisted health educational programme on sanitary workers was found to be very effective method of improving the knowledge regarding health hazards and its prevention. The data were analyzed and interpreted in terms of objectives formulated. Overall. That majority 98% of the sanitary workers had inadequate knowledge and remaining 2% had moderate knowledge in the pretest. After administration of planned video assisted health educational programme majority 46% of the subjects had adequate knowledge, and 54% had moderate knowledge regarding prevention of health hazards in the post test. “t” value 40.378 is greater than the table value both at 0.01 level of significance. Therefore, “t” value is found to be significant. Inferred that there is no significant association between knowledge level of the sanitary workers and selected variables; analyzed by Chi-square test.

Keywords: *Effectiveness, video assisted health educational programme, Knowledge, health hazards, prevention, sanitary workers & city corporation.*

Introduction

Sanitation workers are the backbone of the civic cleaning system. In a developing country, In **India** we have approximate 5 million sanitation workers according to the latest data. Sanitary worker is a person responsible for cleaning, maintaining, operating, or emptying the equipment or technology at any step of the sanitation chain. Sanitation workers were exposed to a number of environmental and occupational hazards leading to musculoskeletal disorders, exposure to harmful gases, respiratory problems, headache, dermatological problem, gastrointestinal and leptospirosis during work. Keeping the above facts in view, the researcher took up the task to assess the knowledge of sanitary workers.

India generates nearly 62 million tons of municipal solid waste annually that creates huge problems in the environment. Small number of initiatives of waste treatment, e.g., incineration, pyrolysis, bio-refining & biogas plants, composting, recycling and are available in the country. For the sustainable Solid Waste Management (SWM), flagged off on October 2, 2014, is considered as a paradigm shift in Indian SWM movement.

OBJECTIVES OF THE STUDY:

1. To assess the knowledge on prevention of health hazards among selected sanitary workers.
2. To implement and evaluate the planned video assisted health educational programme.
3. To find the association between the knowledge with their selected demographic variables.

RESEARCH HYPOTHESIS:

On the basis of objectives of the study the following hypothesis have been formulated.

- **H1**-There will be significant difference in the knowledge regarding prevention of health hazards.
- **H2** -There will be a significant association between the knowledge of their health hazards with selected demographic variables.

NEED FOR THE STUDY

According to **International Labor Organization**, about 2.34 million people suffered due to occupational hazards. That includes 2.02 million people death each year. From work-related diseases, 321,000 people die each year from occupational accidents, 160 million non-fatal work-related diseases per year and, 317 million non –fatal occupational accidents per year. These report reveals that Every 15 seconds, a worker dies from a work-related accident or disease. Every 15 seconds, 151 workers have a work-related accident.09

CONCEPTUAL FRAMEWORK

A theory is a framework initiated for some purpose. A theory is a set of interrelated constructs, definitions, propositions that present a systemic view of phenomena by specifying relations among variables with purpose of explaining and predicting the phenomena. Conceptual frame work for present study is Irwin, M, Rosen stock and Backer Health Belief Model.

METHODOLOGY

Research methodology is a way of systematically solving the research problem. It is a science of studying how research is done scientifically.

Research approach: The research approach indicates the procedure for conducting the study. It guides the

researcher what to research, whom to analyze and interpret the results. It provides a picture of situation as it naturally happens.

Research design: The Research Design of the study gives out the basic strategies that the researcher adapts to develop accurate and correct table evidence.

Table 1: Symbolic representation of pre experimental: one group pre-test post-test Design.

Group	Pre-Test Assessment Of Knowledge	Planned Video Assisted Health Educational Programme	Post-Test Assessment Of Knowledge
100 selected sanitary workers of City Corporation Kalaburagi	O1	X	O2

O1 -Pre-test assessment of knowledge,
 X -Planned video assisted health educational programme,
 O2 -Post-test assessment of knowledge

Setting of the study: Setting refers to Physical locations and conditions in which data collection takes place in the study.

The present study was conducted in city corporation Kalaburagi district.

Population: The target population of the present study includes the selected sanitary workers of City Corporation, kalaburagi district. The total population taken for this study is 100.

Accessible population: The accessible population was the sanitary workers those who are working in the selected area of city corporation, Kalaburagi district.

Sample and sample size: The sample used for this study was sanitary workers of City Corporation Kalaburagi as sample in this study.

The study samples were the sanitary workers in city corporation Kalaburagi district. The sample size is 100 (including male & female).

Sample Technique: In the present study, simple random sampling technique method was used by the researcher to select subject in the sanitary workers of City Corporation, Kalaburagi

Sample and sample size: Sample is a small portion of the population selected for observation and analysis.

The sample size was 100.

DESCRIPTION OF THE TOOL

Section-I: Description of demographic characteristics of sanitary workers.

Section-II: Knowledge level of sanitary workers regarding the prevention of health hazards.

Section-III: Comparison of the pre-test and post-test Knowledge scores of sanitary workers.

Section-IV: Association between Knowledge scores with selected demographic variables.

SCORING PROCEDURES:

Part-II: The correct response to items in part II are respectively knowledge related to health problems of sanitary workers was given a Numerical score.

0-50% -Inadequate

51-75% -Moderate

76 -100% -Adequate

Table 2: Overall pretest and post -test knowledge scores of the sanitary workers. (N = 100)

Knowledge level	Pre test		Post test	
	Frequency	%	Frequency	%
Inadequate knowledge	98	98.0	0	0.0
Moderate knowledge	2	2.0	54	54.0
Adequate knowledge	0	0.0	46	46.0
Total	100	100	100	100

Table 2 depicts that majority 98% of the sanitary workers had inadequate knowledge and remaining 2% had moderate knowledge in the pretest. After administration of planned video assisted health educational programme majority 46% of the subjects had adequate knowledge, and 54% had moderate knowledge regarding prevention of health hazards in the post test.

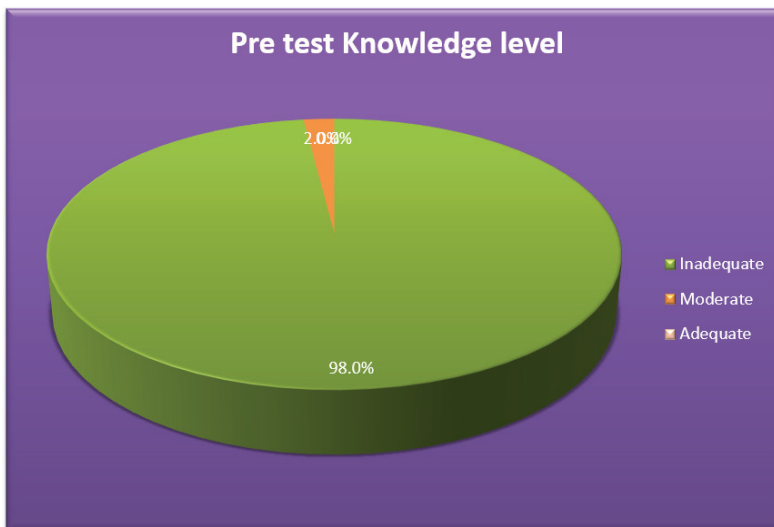


Figure 1: Overall pre-test knowledge level of sanitary workers

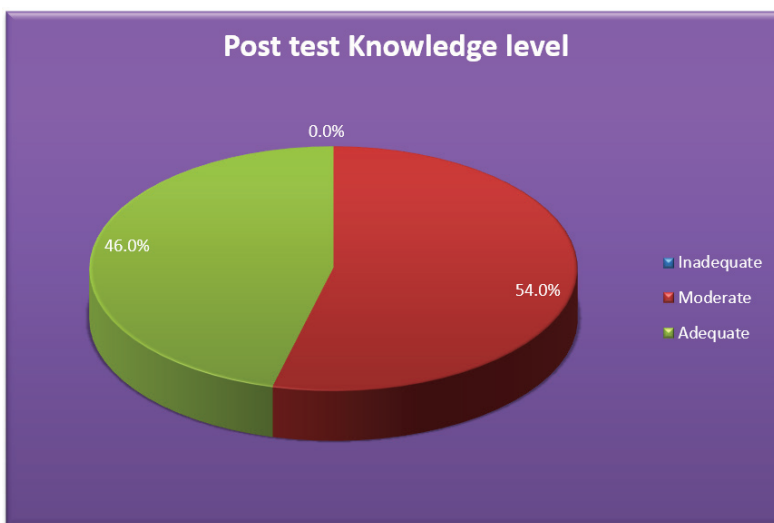


Figure 2: Overall post-test knowledge level of sanitary workers

Table 3: Mean, mean percentage, median and standard deviation of pretest and post-test knowledge scores of sanitary workers. (N = 100)

Knowledge aspects	Maximum Score	Mean	Mean %	Median	SD	Mean	Mean %	Median	SD
General information	8	3.1	38.75	3	1.298	5.9	73.75	6	1.167
Respiratory problems	7	2.78	39.71	3	1.259	5.14	73.42	5	1.206
Skin diseases	8	3.2	40.0	3	1.034	6.07	75.87	6	1.208
Gastro intestinal problems	10	3.93	39.3	4	1.552	7.41	74.1	7	1.422
Eye problems	3	1.11	37.0	1	0.709	2.12	70.66	2	0.714
Musculoskeletal problems	14	5.31	37.92	5	1.495	10.64	76.0	11	1.778
Overall Knowledge	50	19.43	38.86	20	3.143	37.28	74.56	37	2.985

Table 3 depicts that the mean pre-test knowledge scores of respondents were found to be 19.43 (38.86%) with standard deviation 3.143 shows the inadequate knowledge in the pre-test. After administration of planned video assisted health educational programme the mean knowledge scores of the respondents was 37.28 (74.56%) with the standard deviation of 2.985 which shows the improvement in the knowledge level of subjects.

Table 4: Comparison of knowledge scores of sanitary workers. (N = 100)

Sl.No.	Knowledge	Pre test		Post test		Mean difference	t value	Do	Inference
		Mean	SD	Mean	SD				
1.	General information	3.1	1.298	5.9	1.167	2.8	15.021	99	S
2.	Respiratory problems	2.78	1.259	5.14	1.206	2.36	14.590	99	S
3.	Skin diseases	3.2	1.034	6.07	1.208	2.87	18.616	99	S
4.	Gastro intestinal problems	3.93	1.552	7.41	1.422	3.48	15.821	99	S
5.	Eye problems	1.11	0.709	2.12	0.714	1.01	10.535	99	S
6.	Musculoskeletal problems	5.31	1.495	10.64	1.778	5.33	23.667	99	S
	Overall Knowledge	19.43	3.143	37.28	2.985	17.85	40.378	99	S

From the table 4 it is evident that the obtained “t” value 40.378 is greater than the table value both at 0.01 level of significance. Therefore, “t” value is found to be significant. Hence it is inferred that there is significant difference between the pre -test and post-test knowledge sanitary workers regarding the prevention of health hazards.

Table 5: Association of post-test knowledge score of sanitary workers with the demographic variables. (N= 100)

Variables	Below Median	Median and above	Chi square	Df	P value (0.05)	Inference
1. Age in years						
a. 20-29 years	12	12	5.072	3	0.167	NS
b. 30-39 years	19	31				
c. 40-49 years	14	7				
d. Above 50 years	2	3				
2. Gender						
a. Male	28	23	2.609	1	0.106	NS
b. Female	19	30				
3. Education						
a. Illiterates	6	9	4.590	3	0.204	NS
b. Primary	11	19				
c. High school	24	16				
d. PUC	6	9				
4. Marital status						
a. Married	29	36	1.893	3	0.595	NS
b. Unmarried	11	8				
c. Widowed	4	7				
d. Divorced	3	2				
5. Religion						
a. Hindu	25	29	2.187	3	0.535	NS
b. Muslim	9	15				
c. Christian	9	6				
d. Others	4	3				
6. Sanitary service job experience						
a. <1 years	10	15	0.771	3	0.856	NS
b. 1-5 years	16	15				
c. 6-10 years	8	9				
d. Above 11 years	13	14				

Variables	Below Median	Median and above	Chi square	Df	P value (0.05)	Inference
7. Source of information						
a. TV, Mobile	23	25	1.087	3	0.780	NS
b. News papers	5	5				
c. Health personnel	7	12				
d. Friends	12	11				

The table5 shows χ^2 value computed between the pre-test knowledge level of sanitary workers on prevention of health hazards and selected demographic variables. Variables such as age, gender, educational status, marital status, religion, sanitary service job experience and source of information were not significant at 0.05 levels. Thus it can be inferred that there is no significant association between knowledge level of the sanitary workers and selected variables.

HYPOTHESIS TESTING

H1 -There will be significant difference in the knowledge regarding prevention of health hazards.

Table 10 it is evident that the obtained “t” value 40.378 is greater than the table value both at 0.01 level of significance. Therefore, “t” value is found to be significant. Hence it is inferred that there is significant difference between the pre -test and post-test knowledge sanitary workers regarding the prevention of health hazards.

H2-There will be a significant association between the knowledge of their health hazards with selected demographic variables.

The table 11 shows reveals that there is no significant association between the demographic variables and the pre-test knowledge score on health hazards among selected sanitary workers as the Chi square results deny the presence of association between the demographic variable and the knowledge levels of the respective subjects.

Conclusion

This study was conducted to evaluate the effectiveness of planned video assisted health educational programme on knowledge of health hazards and its prevention among selected sanitary workers of City Corporation, kalaburagi district of Karnataka state.

The following conclusions were drawn on the basis of the findings of the study.

1. Knowledge of the selected sanitary workers that 98% of the sanitary workers had inadequate knowledge and remaining 2% had moderate knowledge in the pretest. After administration of planned video assisted health

educational programme majority 46% of the subjects had adequate knowledge, and 54% had moderate knowledge regarding prevention of health hazards in the post test.

2. There was no association between the pre -test knowledge level of sanitary workers on prevention of health hazards and selected demographic variables. Variables such as age, gender, educational status, marital status, religion, sanitary service job experience and source of information were not significant at 0.05 levels.

The obtained “t” value 40.378 is greater than the table value both at 0.01 level of significance. Therefore, “t” value is found to be significant. Hence it is inferred that there is significant difference between the pre -test and post-test knowledge sanitary workers regarding the prevention of health hazards. Planned video assisted health educational programme on knowledge of health hazards and its prevention among selected sanitary workers of City Corporation, Kalaburagi district of Karnataka state

NURSING IMPLICATIONS

The findings of this study have implications in the field of nursing practice, nursing education, nursing administration and nursing research.

NURSING PRACTICE:

The nursing practice has been undergoing many evolutions in recent years. It is a practicing profession, so the researcher generally integrates research findings into practice.

1. The findings on sanitary workers show the need for preventive education occupational health hazards through public health personnel to increase knowledge regarding occupational health hazards.
2. The study findings will helps to identify the common health problems of sanitary workers and thereby prevent sanitary workers from prevention of occupational health hazards.

NURSING EDUCATION:

1. The findings of study can serve as guidelines for the nurse educator for planning and conducting

educational programmers for student nurses regarding occupational hazards and its prevention.

2. This study will be a useful for future nursing students to pay attention in collecting materials for health education of sanitary workers in hospital and community area.
3. Nursing student must gain skills in identifying occupational health hazards through history of the patient and warning signs of selected occupational health hazards.

NURSING ADMINISTRATION:

1. The present study helps the nursing administrative authority to recognize the need for conducting awareness programme on occupational health hazards.
2. This will encourage the Nurse administrator to arrange workshops, seminars regarding prevention of occupational health hazards among sanitary workers.

NURSING RESEARCH

The importance of research in nursing is to build the body of knowledge. There are different situations and places where the problems are identified which need a systematic evaluation. The investigators need lot of review materials and one may be obtained by using this study report. Various methods may be used to strengthen the knowledge of the people by the researchers, which should be published for the benefit of those who are not able to participate in the studies.

RECOMMENDATIONS

Keeping in view the findings of the present study, the following recommendations were made.

1. A similar study on large sample may help to draw more definite conclusions and make generalization.
2. A similar study can be conducted by descriptive approach, often serves to generate hypothesis for future research.
3. A similar study should be conducted by utilizing other domain like practice.
4. A study can be conducted using various methods of teaching to determine the most effective method of teaching. For e.g.; Self-instructional module, demonstration etc.

Ethical clearance: Obtained from concerned authority

Conflict of interest: None

Funding: Self

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