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A Study to Assess the Effectiveness of Video Assisted Teaching Programme (Vatp) on Knowledge Regarding Occupational Hazards and Safety Measures among Workers of Selected Sawmill at Thiruvavur

Joseph Hermaline

Vice Principal, Vinayaka Mission's College of Nursing, Karaikal, Pondicherry, India.

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Abstract

"A study to assess the effectiveness of Video Assisted Teaching Programme (VATP) on knowledge regarding occupational hazards and safety measures among workers of selected saw mill at Thiruvavur". The objectives of the study are 1. To assess the level of knowledge regarding occupational hazards and safety measures among workers of saw mill. 2. To assess the effectiveness video assisted teaching programme on occupational hazards and safety measures among workers of saw mill. 3. To find the association between pretest level of knowledge on occupational hazards and safety measures among workers with selected demographic variables. Pre experimental with one group pretest and posttest design was used. Sixty workers were selected using purposive sampling technique in saw mill, Thiruvavur. Pretest was conducted using structured interview schedule. Video Assisted Teaching Programme (VATP) was given about occupational hazards and safety measures. After one week posttest was conducted using the same questionnaire. The findings revealed that Pretest knowledge of thirty nine (65%) worker had inadequate knowledge, Twenty (33.3%) of them had moderately adequate knowledge and One (1.7%) of them had adequate knowledge. In posttest Forty nine (81.7%) worker had adequate knowledge, Eleven (18.3%) of them had moderately adequate knowledge. The overall pretest knowledge mean score was 14.58 ± 3.351 which is 24.3% of the total mean score, whereas in post-test mean score was 24.4 ± 2.396 which is 40.71% of the total mean score.

Keywords: Video Assisted Teaching, Occupational Hazards, Workers, Sawmill.

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Introduction

"So many people spend their Health gaining Wealth, and then have to spend their Wealth to regain their health"-A J Rebmatieri Quotes. Health is the Birthright of everyone – the concept of „Health for All“ was developed by the international conference on primary health care held at Alma-Ata, Kazakhstan in 1978, three years later it was adopted as the slogan for the "World Health Day". "Health is not an end in itself" – Health is only the means to another end that depends on the person or group concerned. A student desire health so that he can study hard and get through the examination with flying colours. For a coolie, health is necessary for putting in hard labour and earning sufficient. Occupational health is the art and science of conserving and promoting the health and efficiency of individuals at the work place during and throughout the course of their employment.(Sridhar Rao-2014)

Wood is one of the most important renewable resources in the world. Wood is the hard fibrous substances composing most of the stem and branches of

a tree or shrub, and covered by the bark. The inner core of the wood is called heart wood. And outer layers are called sapwood. Wood dust become a potential health problem when wood particles from process such as sanding, cutting, drilling, sawing, or turning to sap wood become air borne. The total amount of airborne dust produced depends only on the total mass of wood removed, and the type of wood. (Kuruppuge Udeni Alwis 2008). Allergic and non-allergic symptoms and diseases when they get deposited in body organs. Occupational exposure to wood dust may results health hazards. Saw mill workers mainly exposed to four hazards that are, physical hazards like heat, cold, light, noise, U.V radiation etc. Mechanical hazards like accidents injuries etc. Chemical hazards like inhalation of dust, gases etc. Biological hazards like leptospirosis, anthrax, fungus infection etc.

As per the Director General of Factory Advisory Services and labor institutes report(2012), there were 300,000 registered industries and more than 5000 chemical factories in India, employing over half a million workers. Approximately 8.8million workers were employed in various factories. In India, occupational health is more than simple health issues, which includes poor industrial legislation, vast informal sector, less attention to industrial hygiene and poor surveillance data.

Correspondence

Joseph Hermaline

E-mail: hermaline76@gmail.com, Ph. +9197898 53995

The major occupational diseases morbidity of concern in India includes silicosis, musculoskeletal injuries, pneumoconiosis, chronic obstructive lung diseases, asbestosis, byssinosis; pesticide poisoning and noise-induced hearing loss. (Kulkarni GK-2006).

Working in a sawmill is one of the most dangerous occupations in India and other developed countries. The equipment poses numerous hazards. Massive weights and falling, rolling, and/or sliding logs can be very dangerous. The woodworking operations of a sawmill can also be hazardous, particularly when machines are used improperly or without proper safeguards. Woodworking employees often suffer from the following injuries: lacerations, amputations, severed fingers, and blindness. Wood dust, and chemicals used for finishing products, may cause skin and respiratory diseases. Sawmill hazards are even more dangerous when environmental conditions are factored in, such as uneven, unstable, or rough terrain; inclement weather; or isolated work sites where health care facilities are not immediately accessible. Sawmill hazards are addressed in specific standards for the general industry. (Gordon Kayode Osagbemi 2012)

Statement of the Problem

A study to assess the effectiveness of Video Assisted Teaching Programme (VATP) on knowledge regarding occupational hazards and safety measures among workers of selected sawmill at Thiruvapur.

Objectives

- To assess the level of knowledge regarding occupational hazards and safety measures among workers of saw mill.
- To assess the effectiveness video assisted teaching programme on occupational hazards and safety measures among workers of saw mill.
- To find the association between pretest level of knowledge on occupational hazards and safety measures among workers with selected demographical variables.

Hypothesis

- There will be significant difference between pretest and posttest knowledge score on occupational hazards and safety measures among workers of saw mill at Thiruvapur.
- There will be significant association between pretest knowledge score on occupational hazards and safety measures among workers of saw mill at Thiruvapur with selected demographic variables.

Conceptual Framework

General System Theory developed by LUDWIG VON BERTALANFFY (1968) was used for conceptual framework.

Methodology

Quantitative approach was used. Pre-experimental with one group pre-test and post-test design was selected. The study was carried out in sakthi sawmill, Thiruvapur. In this study target population comprise of saw mill workers. Sample comprises of workers working in Saw mills. The sample size comprises of Sixty workers working in Sakthi sawmill, Thiruvapur. Purposive sampling technique was used to select the sample for the present study. The instrument consists of two section. Section I: It includes demographic data which consists of age, religion, education, income, type of family, marital status, residency, working experience, attended training programme, met with any accidents, source of information. Section II: It includes Structured Interview Schedule on knowledge regarding occupational hazards and safety measures. It consists of the items related to meaning, types, agents, risk factors, symptoms, investigation and safety measures on occupational hazards. Pre-test was conducted among the selected samples by using closed ended questionnaire. On the same day of the pretest assessment, the video Assisted Teaching Programme on occupational hazards and safety measures was conducted by researcher. Posttest was conducted on the eighth day of the video assisted teaching by using the same structured interview schedule which was used on the pretest. The same procedure was followed for all the sixty samples.

Major Findings of the Study

- Highest percentage forty five (45%) workers were in the age group of 28-37 years, twenty eight percentage (28%) workers were in the age group of 38-37 years, twenty three percentage (23%) were in age group of 18-27 years of workers, lowest percentage three point three percentage (3.3%) were in age group of above 47 years. Hence it can be interpreted that the most of workers with 28-37 years of age group.
- Highest percentage fifty six point seven percentage (56.7%) of the workers were living in urban area, and lowest percentage forty three point three (43.3%) of the workers were living in rural area. It can be interpreted that the highest percentage of workers were living in urban area.
- Highest percentage eighty five (85%) of the workers were Hindus, eleven point seven percentage (11.7%) were Christian, and the lowest percentage three point three (3.3%) were muslims. It can be interpreted that the highest percentage of workers were Hindus.
- Highest percentage forty five (45%) of workers had primary school, Twenty eight point three (28.3%) of workers had illiterate, fifteen percentage (15%) of workers had middle school and lowest percentage eleven point seven (11.7%) of workers higher secondary. It can be interpreted highest percentage of workers had primary school.

- Highest percentage sixty one point seven (61.7%) of workers were unmarried, and lowest percentage thirty eight point three (38.3%) of workers were married. It depicts that highest percentage of workers were married.
- Highest percentage sixty five percentage (65%) of workers had nuclear family, and the lowest percentage of thirty five percentage (35%) of workers had joint family. It can be interpreted that majority of workers were from families with nuclear family.
- Highest percentage forty three point three (43.3%) of workers had an income of Rs 3001-4000/ month, twenty six point seven percentage (26.7%) of workers had an income of above Rs 4000, twenty percentage (20%) of workers had an income of 2001-3000, lowest percentage of ten (10%) Rs 1000-2000, It can be interpreted that majority of workers had income of Rs 3001-4000.
- Highest percentage fifty six point seven percentage (56.7%) of workers had working experience of 6-10 years, twenty percentage (20%) of workers had working experience of 0-5 years, eighteen point three percentage (18.3 %) of workers had working experience of 11-15 years, and the lowest

percentage five (5%) of workers had working experience of above 16 years. It can be interpreted that most of the workers had 6-10 years of working experiences.

- Highest percentage sixty three point three (63.3%) of workers attend accidents during working hours. lowest percentage thirty six point seven (36.7%) of workers not attend accidents during working hours.
- Highest percentage fifty six point seven (56.7%) of workers not attended any programme on occupational hazards and safety measures, lowest percentage forty three point three (43.3%) of workers attended programme on occupational hazards and safety measures.
- Highest percentage fifty three point three (53.3%) of workers received information about media, twenty six point (26.7%) of workers received information about co-workers, eleven point seven percentage (11.7%) of workers received information about others, and the lowest percentage eight point three (8.3%) of workers received information about health personal. it can be interpret that highest percentage of workers received information about media.

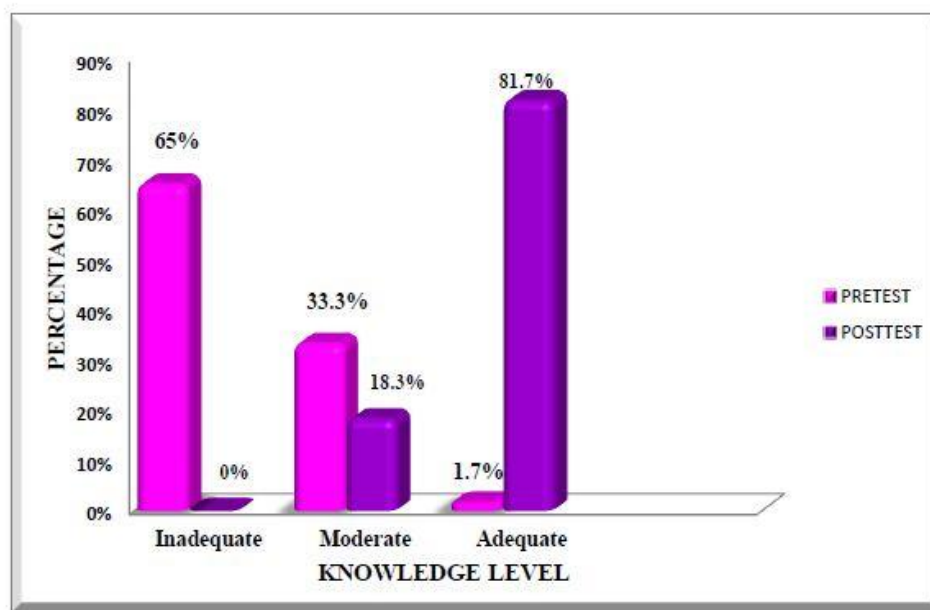


Figure.14: Comparison of Pretest and Post-test Knowledge on Occupational Hazards and Safety Measure

- Majority of sawmill workers (65%) workers had inadequate knowledge, (33.3%) of them had moderately adequate knowledge and (1.7%) of them had adequate knowledge. Majority of the sawmill workers (81.7%) workers had adequate knowledge and (18.7%) of them had moderately adequate knowledge
- The mean value of the pretest knowledge score was 14.58 which is lower than the posttest mean value 24.43.
- The standard deviation of the pretest knowledge score was 3.351 which is higher than the posttest mean value 2.396.
- The 't' value was statistically significant at $P < 0.05$ levels, which shows that there was a significant

difference between pretest and posttest knowledge score.

- There was significant association between pretest knowledge scores of saw mill workers with their age, religion, marital status, and family income

Recommendations

- A similar study can be replicated by using a larger sample.
- A comparative study can be conducted to assess the knowledge of sawmill workers and cotton mill workers.
- An experimental study can be taken up to evaluate the lung function test and identify the risk of bronchial asthma in same group.
- Follow up study could be conducted to determine the effectiveness of a planned awareness programme.
- A similar study can be conducted by administering a self-instructional module and should evaluate the effectiveness of the self-instructional module.

Conclusion

- The knowledge regarding occupational hazards and safety measures have increased after VATP among sawmill workers.
- The VATP was found effective in improving the knowledge regarding occupational hazards among sawmill workers.
- The study showed that are statistically significant associations between pretest knowledge and age, religion, marital status, family income.

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