

“A study to Assess the Effectiveness of Information Booklet on Knowledge Regarding Scleroderma and its prevention among Marble Factory Worker in Selected Marble Factories at Udaipur District (Raj.)”.

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Abstract: A quantitative study to evaluate the effectiveness of Information booklet on knowledge regarding scleroderma and its prevention among marble factory worker in selected marble factories at Udaipur District, Rajasthan. The sample consisting of 60 marble factory workers of selected marble factories by using non probability convenient sampling method. The tool comprised of structured knowledge questionnaire. The pre test was conducted and the information booklet was administered. The post test was conducted after one week. The data obtained were analyzed by using descriptive and inferential statistics. The mean post test knowledge score (17.85) was higher than mean pre test knowledge score i.e. (5.22), Mean difference is 12.63. Z score is -42.98. Z critical value is 1.96 and then inference was significance (at 0.05 levels). This indicated that there was a significant difference between pre test and post test knowledge score of marble factory worker regarding scleroderma. Hence the research hypothesis H_1 was proved and accepted. The chi square test was carried out to determine the association between the pre test knowledge and demographic variable such as like age in year, gender, educational status, area of residence, working experience and source of information about scleroderma. Out of which Age in years ($\chi^2 = 1.59^*$), Gender ($\chi^2 = 0^*$), Educational status ($\chi^2 = 11.3^*$), Area of residence ($\chi^2 = 0.57^*$), Working experience ($\chi^2 = 1.25^*$), and Source of information about scleroderma ($\chi^2 = 16.48^*$) were found to be significant associated with pre test knowledge. Hence research **Hypothesis (H_2)** was proved and accepted.

Date of Submission: 05-06-2019

Date of acceptance: 20-06-2019

I. Introduction

Now a day's diseases are developing according to the occupation in which the worker is involving. Hence occupational health is becoming the important field to focus in order to improve the health status of the workers. Occupational health should aim at the promotion and maintenance of the highest degree of physical, mental and social well being of workers in the occupation; the protection among workers of departures from health caused by their working condition; the protection of the worker in their employment from risks resulting from factors adverse to health; the placing and maintenance of the worker in an occupational environment adapted to his physiological and psychological equipment and to summarize the adaptation of work to man and of each man to his job.¹

Among many occupational disorder, Scleroderma is one which causes morbidity & mortality among the workers of mining industries. Scleroderma is classified as an autoimmune disease. It is a chronic connective tissue disease. The word “scleroderma” comes from the Greek words “Sclera” meaning “hard” and “derma” meaning skin. Change to the “skin” blood vessels muscles and internal organ. Scleroderma is not contagious, it is not infectious, it is not cancerous or malignant and it is not usually hereditary.²

Scleroderma is found throughout the world and affects all races. Statistically, women approximately three to four times greater risk of getting this disease than men. This risk further increased in women during the mid to late childbearing years. In Australia the annual incidence of systemic sclerosis is 16 per 1,000,000 with a prevalence of 233 per 1,000,000. In the USA, the prevalence of scleroderma in the general population has been reported in the range of 50 per 1,000,000. In India the prevalence of scleroderma in the general population has been reported in the range of 11 per million.³

The safety measure can be helpful to prevent scleroderma by using mask and gloves, water therapy i.e.

spraying water then minimizes the dust while cutting marble and granite is a common measure. The factory act is helpful to keep the health of factory worker; factory act is related to the welfare of the labors. Creating awareness among workers of granite factories regarding ill effects of scleroderma and its preventive measures.⁴

II. Research Elaborations

Statement of Problem-

“A study to Assess the Effectiveness of Information Booklet on Knowledge Regarding Scleroderma among Marble Factory Worker in Selected Marble Factories at Udaipur District Rajasthan”.

III. Objectives

1. To assess the pre and post test knowledge score regarding scleroderma and its prevention among marble factory workers.
2. To evaluate the effectiveness of information booklet regarding scleroderma and its prevention among marble factory workers.
3. To find out the association between pre-test knowledge score with selected socio demographic variable.

Hypothesis

H₁:- There will be a significant difference between pre and post-test knowledge score of the marble factories workers regarding scleroderma.

H₂:- There will be a significant association between pre-test knowledge score and selected socio- demographic variables.

IV. Material and Method

Population- Marble factory workers

Sample- Marble Factory Workers in selected marble factories at Udaipur district Rajasthan.

Sample Size- 60 Marble Factory Workers

Settings- Himmat marble & granites, Soner marble & granites and Arihant trading company marble & granites in Udaipur district (Raj.)

Sampling technique- Non probability convenient sampling method

The conceptual framework for the present study was based on modified concept framework of study based on WHO's system model.

V. Research design

The design chosen for the study is one group pre-test, post-test research design

Group	Pre test (Dependent Variable)	Intervention (Independent Variable)	Post test (Dependent Variable)
	O ₁ Knowledge of Students	X Information Booklet	O ₂ Knowledge of Students

Table 7: Quasi experimental one group pre test post test research design.

The interpretation of the symbol are as below-

O₁ = Assessment of knowledge by pre test knowledge questionnaire

X = Information booklet on scleroderma among the marble factory workers.

O₂ = Assessment of knowledge by post test knowledge questionnaire

Ethical Consideration-

After obtaining permission from research committee of Geetanjali college of nursing, prior permission was obtained from selected marble factories of Udaipur. Consent was taken from each participant who had participated in the study.

Description of the Tool

Section A- Demographic Data: Consisted of selected socio demographic variables such as- Age in years, Gender, Educational status, Area of residence, Working experience and source of information regarding scleroderma among marble factory workers.

Section B- Tools and Scoring Technique: A structured knowledge questionnaire was selected based on the objectives of the study as it was considered the based and appropriate instrument to elicit the response from marble factory workers.

Scoring:

The knowledge of marble factory workers regarding the outcomes of scleroderma and its prevention was scored as follows, one mark for each correct answer and zero marks for incorrect answer. The maximum score was 22, to interpret level of knowledge the score was distributed as follows: Interpretation of knowledge:

Level	Range
Inadequate knowledge	<50 %
Moderate knowledge	51-75 %
Adequate knowledge	>76 %

An answer key was prepared for scoring answer to the structured knowledge questionnaire.

Data Collection and Data Analysis

The data was presented under the following sections

Section-I: Description of socio-demographic variables of the respondents.

Section-II: Distribution of the respondents according to pre and post-test level of knowledge score

Section-III: Effectiveness of Information booklet on knowledge of marble factory workers regarding scleroderma and its prevention

VI. Result

Table10: Frequency and percentage distribution of respondents by the level of knowledge.
N =60

Level of knowledge	Score	Frequency		Percentage	
		Pre-test	Post-test	Pre-Test	Post-Test
Inadequate knowledge (0-50%)	0-10	60	0	100%	0%
Moderate Knowledge (51-75%)	11-16	0	13	0%	21.67%
Adequate knowledge (76 and above)	17-22	0	47	0%	78.33%
Total	22	60	60	100%	100%

Table 10: The result showed that in pre test most of respondents had no adequate knowledge on scleroderma, 100% respondents had inadequate knowledge & 0% had moderately adequate on scleroderma. After giving information booklet, in the post test respondents gain adequate knowledge on scleroderma that was 0% whereas 21.67% respondents had moderately adequate on scleroderma & 78.33% respondents had inadequate knowledge on scleroderma.

Table 11: Effectiveness of information booklet by comparing pre- test and post- test knowledge score of respondents.

Test	Mean	Variance	Mean difference	Z score	Z critical value	Inference
Pre-test	5.22	2.54548	12.63	-42.98	1.96	S*
Post-test	17.85	2.638136				

S =Significant at (alpha) $\alpha < 0.05$ level of significance

Table 11: The result showed that the mean of pre test knowledge score is 5.22 & post test knowledge score is 17.85. Variance of pre test knowledge score is 2.55 & variance of post test knowledge score is 2.63. Mean difference is 12.63. Z score is -42.98. Z critical value is 1.96 and then inference was significance.

H₁: There is a significant difference between pre test & post test knowledge score of marble factory workers regarding scleroderma. Hypothesis was tested at 0.05 levels. Hence the **Hypothesis (H₁)** is proved and accepted.

VII. Conclusion

This study concluded that there is improvement in the level of knowledge of marble factory workers which indicates that the Information booklet was effective. The demographic variables of marble factory workers significantly associated with the pre-test knowledge score. The development of Information booklet will help the marble factory workers to enhance their knowledge regarding scleroderma and its prevention.

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Mr. Kamlesh Joshi. “A study to Assess the Effectiveness of Information Booklet on Knowledge Regarding Scleroderma and its prevention among Marble Factory Worker in Selected Marble Factories at Udaipur District (Raj.)”. IOSR Journal of Nursing and Health Science (IOSR-JNHS), vol. 8, no.03 , 2019, pp. 83-86.