

## A study to assess the knowledge on cosmetic pollution among women in selected areas at Nellore

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### Abstract

**Background:** There is different type of allergies possible with excessive use of cosmetics and it times their side effect even if the usage is limited. The allergies can be causing the skin, breathing, eating, hair etc. Skin allergies may be allergies to certain kind of lotions. Dangerous chemicals like sodium sulfate, phthalates, parabens, triclosen and various reactive acids present in most popular cosmetic products today are absorbed by the skin in to blood stream and lead to various side effects.

**Aim:** The aim of the study was to assess the level of knowledge regarding cosmetic pollution among women.

**Objectives:** 1. To assess the level of knowledge regarding cosmetic pollution among women in Saraswathi Nagar. 2. To find out the association between level of knowledge regarding cosmetic pollution among women with selected socio demographic variables.

**Methodology:** 100 women aged between 18-45 years from Saraswathi Nagar, Nellore were selected by using convenience sampling method.

**Results:** Regarding the knowledge level of women, 3(3%) had B level, 17(17%) had C level and 80(80%) had D level of knowledge on cosmetic pollution.

**Keywords:** Knowledge, cosmetic pollution, women

### Introduction

There is different type of allergies possible with excessive use of cosmetics and it times their side effect even if the usage is limited. The allergies can be causing the skin, breathing, eating, hair etc. Skin allergies may be allergies to certain kind of lotions. Dangerous chemicals like sodium sulfate, phthalates, parabens, triclosen and various reactive acids present in most popular cosmetic products today are absorbed by the skin in to blood stream and lead to various side effects<sup>[1]</sup>.

According to the findings of WHO the cosmetics are mostly using the country is Thailand. The second most country is China and Turkey. Iranian women's are the seventh most country using in cosmetics. FDA regulations that specifically prohibit or strict the use of the following ingredients in cosmetics are Bithionil, Chlorofluorocarbon, chloroform, Halogenated salicylic etc<sup>[2]</sup>.

Henry George (2016) a study was conducted in Danish population regarding knowledge of cosmetic effects and rash related to use of scented products. The sample consisted of 1537 persons. 801 females and 736 male above the age of 15 years. In that study questions were asked concerning rash related to the use of scented products 28.6% had on some occasion experienced rash from scented products 10.6% had experienced rash within the year prior to interview. It has shown that individuals below the age of

18 years had a significant increased risk of reporting rash from scented products compared to older age groups<sup>[3]</sup>.

### Need for the study

A substantial number of studies have investigated the knowledge regarding cosmetic pollution. The aim of the review was to determine the knowledge regarding cosmetics and its side effect among women<sup>[4]</sup>.

In 1959, WHO find that the allergens due to cosmetics were 21.27 ranges that is 12.5- 60 % and weighted average knowledge of women was 19.5%. Based on total collection in all age group between 1966 and 2007. In the recent studies of cosmetic pollution in 2015 October 24 international journal of cosmetics was investigated that the effect of cosmetics is leads to the skin allergies, the ratio of allergens are 39.4 %. These all studies are concluded that cosmetic pollution is increased in each year. The pollution range is 39.4%<sup>[5]</sup>.

In 2014, there were nearly 11.7% of peoples are using the cosmetics which is an increasing 50% in over last 10 years. As the result of this study confirmed that facial cosmetics are typically self applied influence women physical attractiveness, but the sometime pollution range is 8.5%. The average prevalence of cosmetic pollution was 19.5%<sup>[6]</sup>.

**Problem Statement**

A study to assess the knowledge on cosmetic pollution among women in selected areas at Nellore.

**Objectives**

1. To assess the level of knowledge regarding cosmetic pollution among women in Saraswathi nagar.
2. To find out the association between level of knowledge regarding cosmetic pollution among women with selected socio demographic variables.

**Delimitations**

The study is de limited to,

- Women living in Saraswathi nagar, Nellore.
- Duration of data collection of two weeks
- Sample size of 100

**Methodology**

**Research approach**

A quantitative approach was adopted to determine the research study.

**Research design**

The present study was conducted by using descriptive research design.

**Population**

**Target population:** The target population of the present study includes all women.

**Accessible population:** The accessible population of the study is women residing in Saraswathi Nagar, Nellore.

**Sample**

The sample for the present study includes women aged between 18-45 years and who fulfill the inclusion criteria.

**Sampling technique**

Non probability convenient sampling technique was adopted for the study.

**Sample size**

The sample size of the present study is 100 women in Saraswathi Nagar, Nellore.

**Criteria for sample selection**

**Inclusion criteria:** Women who are;

- residing in saraswathy nagar, Nellore
- women between age of 18-45 years
- available at the time of data collection
- willing to participate in the study

**Exclusion criteria:** Women who are

- not willing to participate in the study
- who are not using any cosmetics

**Variables of the study**

**Demographic variables:** Includes age, educational qualification, language.

**Research variables:** Knowledge on cosmetic pollution among women

**Description of tool**

**Part-I:** It consists of socio demographic variables of age, gender, educational qualification and language.

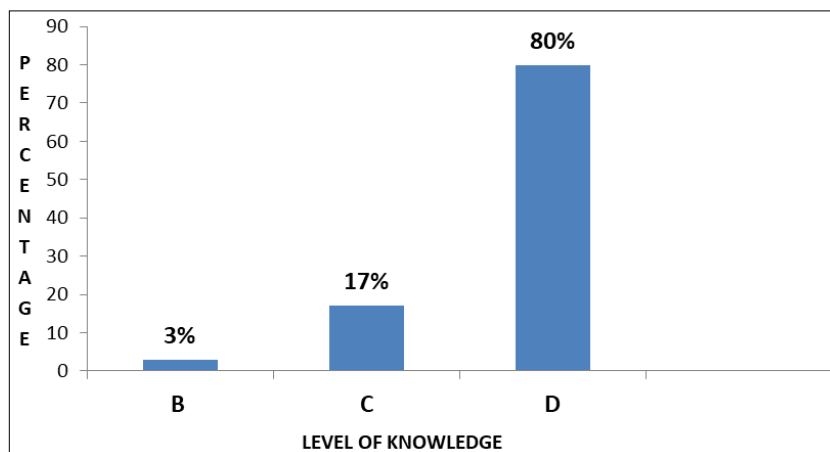
**Part-II:** Deals with semi structured questionnaire to assess the level of knowledge on cosmetic pollution.

**Data Analysis**

**Table 1:** Assess the level of knowledge regarding cosmetic pollution among women. (N=100)

S. No	Level of knowledge	F	P
1.	B	3	3
2.	C	17	17
3.	D	80	80
	Total	100	100

Table No-1: shows that the level of knowledge of women, 3(3%) had B level, 17(17%) had C level and 80(80%) had D level of knowledge.



**Fig 1:** Percentage distribution women based on level of knowledge.

**Table 2:** Mean and standard deviation of level of knowledge regarding cosmetic pollution among women in Saraswathi Nagar. (N=100)

Category	Criteria	Mean	Standard deviation
Women	Level of knowledge	15.31	4.11

Table-2: shows that the mean knowledge score of women was 15.31 and standard deviation was 4.11.

**Table 3:** Association between level of knowledge and socio demographic variables of women regarding cosmetic pollution. (N=100)

S. No	Demographic Variables	B		C		D		Chi-Square
		F	%	F	%	F	%	
1.	<b>Age</b>							
	a. 17-22 years	-	-	6	6	29	29	C=14.79
	b. 23-34 years	2	2	7	7	28	28	T=12.59
	c. 35-40 years	1	1	2	2	18	18	df=6
	d. 41-45 years	-	-	2	2	5	5	P<0.05 S*
2.	<b>Educational qualification</b>							
	a. Primary education	2	2	8	8	35	35	sC=18.42
	b. Secondary education	-	-	-	-	20	20	T=12.59
	c. Higher secondary education	1	1	5	5	17	17	df=6
	d. Post graduate	-	-	4	4	8	8	P<0.05 S*
3.	<b>Source of Information</b>							
	a) Health Personnel	21	21	50	50	15	15	C=96.72
	c) News Paper	1	1	-	-	-	-	Df=6
	d) Internet	3	3	9	9	1	1	T=12.59
							P<0.01 S*	

**Major findings of the study**

- Regarding the knowledge level of women, 3(3%) had B level, 17(17%) had C level and 80(80%) had D level of knowledge on cosmetic pollution.
- The mean knowledge score of women was 15.31 and standard deviation was 4.11.
- Regarding association between level of knowledge and demographic variables, age, educational qualification and source of information had significant association at P<0.05 level.

**Conclusion**

The study concluded that majority i.e., 80(80%) women had low level knowledge (D grade) regarding cosmetic pollution. Hence there is a need to implement the educational programme to women on cosmetic pollution.

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