

A Study to Assess the Knowledge Regarding Ill-Effect of Lipstick on Reproductive Problems amongst Female, Undergraduate Students, Karnataka

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Abstract: Every women feels attractive when she adds a dash of colours to her lips. Though lipstick adds a touch of glamour to your personality, they have severe side effect too. BPA is an endocrine disruptor that has been found to cause fertility issues, birth defect and cancer and it can effect males who get kissed by users of the lipstick, what we call as castrated kiss. The use of lipstick has historically been a fashion statement of women. However the health Risk associated with lipstick has not been thoroughly investigated. This study is aimed to assess the Knowledge Regarding Ill-Effect of Lipstick On Reproductive System. Objectives-Due to lack of studies in this regard, a study was performed to assess the knowledge regarding ill effect of lipstick on reproductive problems among college girls. Research Method: A non experimental descriptive design was used In view of the nature of the problem and to accomplish the objectives of the study, the demographic variables and structured knowledge questionnaire tool is used to collect the data. Purposive sampling technique was adopted. The data was collected from 100 girls studying in degree and professional course at Mysuru. Results revealed that majority of the subjects 48% had very poor knowledge and 40% had poor knowledge, 10% had average knowledge, and 2% had good knowledge regarding ill-effect of lipstick on reproductive system. Findings show that the majority of the girls are believed that the lipstick is used only for better appearance. Approximately 90% do not read the lipstick chemical composition and the majority use low-quality lipstick 75% percentage of girls unaware the chemicals used in lipstick, 80 percent believe lipstick is safe and 90 %uninformed of the side effect of lipstick on the reproductive system. Most of the girls are unaware of the risk of using lipstick during pregnancy or hormonal side effects of long term lipstick use.

Keywords: Reproductive problems, Hormonal side effect, BPA, Female

1.Introduction

For centuries, women have been using a vast array of lipsticks, lip glosses, lip liners and other lip enhancing cosmetics to make their lips appear as plump and luscious looking possible. In ancient time cosmetics were made from natural such as red berries, pulverized gemstone or dye extracted from certain plants and flowers.

It wasn't until the 19th century that lipstick became available as a man made commodity continently packaged by the modern women and composed of mostly wax and artificial coloring.

Studies have been conducted all over the world to determine the actual amount of heavy metals present in lipstick. The campaign for safe cosmetics centre for disease control and prevention in the United states raised the concern about the presence of Lead in the lipsticks. Lead is mainly present in the pigments used to add the color to the lipstick bar. The concentration of pure pigment can vary from 1% in lip gloss to 10% in a darker shade of long lasting formulae depending on the type of product. Since US Food and drug administration (FDA) has not set a limit for lead in lipsticks, the CSC's results were evaluated based in the acceptable limit to lead in candy, assuming the lipstick can be swallowed like candy. They found that half of the 33 brand names red lipstick contained detectable lead in the range of 0.03-0.65 ug/gm and 1/3 of the tested lipstick exceeded the acceptable FDA limit of lead in candy (0.1ug/gm).

Goswami. K conducted a study on Toxic beauty: Are cosmetics Harmful to our Health? A total of 48 samples of lipsticks from different brand were studied for the presence of lead. This study revealed that the concentration of lead in the lipstick under study is much higher than that specified by the USFDA for candy.

Also continuous use of these cosmetics would result in an increase in the toxic metal levels of the body beyond permissible limits. Most common and widely used lipstick found in Indian Market contain level of lead ranging from 2 to 8ug/gm that is 20 to 80 times higher than the USFDA guideline Value of 0.1ug/gm for lead in candy The route of entry of heavy metals like lead (Pb) includes some cosmetics, especially color cosmetics like lipstick. Pb lipsticks toxicity affects the women using them, the unborn fetus, if used in pregnancy, and infants when used in lactation.

Lead is harmful to the nervous system. Lead is common constituent in most lipsticks. Lead is neurotoxin that has a harmful effect on the nervous system. It also cause brain damage, hormonal imbalance and infertility.

In 2012, the FDA developed a new method of testing for lead and ran it on 400 lipstick and other lip product samples from different brands. All of them contained lead, from a minuscule amount less than 0.026 parts per million (ppm) to 7.19 ppm. Until then, the FDA did not have any restrictions on the amount of lead in cosmetics products that can be considered safe for human intake. FDA has

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now issued draft guidance to cosmetic lip products and externally applied cosmetics manufacturers to limit the amount of lead to 10ppm, an amount that it considers nonhazardous.

Petrochemicals may affect the growth and brain development. Many lipsticks have petrochemicals as common ingredients, which have harmful side effects. Petrochemicals are by product of crude oils and natural gas. It can cause endocrine disruption that work as obstacle for growth, development, reproduction and intelligence.

Lipstick increases toxic ingestion. Lipsticks are worn most of the time including when eating out. Women ingest them accidentally while eating, long after they are applied. This increase the impact of the toxin present in lipsticks. The lipstick or lip gloss result in women exceeding the daily intake permitted for aluminum, cadmium, chromium and manganese. These accumulate in the body over time and cause toxicity. The intake of these metals more than 20 percent of their accepted daily intake (ADI) limit.

2. Need for the study

Metal content in lipstick has been an international health concern. This is because lipstick is the basic daily product that is included in face make up application in addition to face powder, foundations, eye shadow, and blush. Lipstick consumers are exposed to heavy metals only in small amounts, but they expose themselves for a prolong period of wearing time which make it vital. The application of lipstick on the lips might cause exposure to a minuscule amount of the lipstick through ingestion when the consumers eat and drink (Airin and Yu 2015).

Few literature and awareness programme are available that centre around the knowledge and perceived health risk associated with the use of cosmetics lip product. Colour cosmetics like lipsticks have a highest average annual growth rate in cosmetics sale while the global colour cosmetic market estimated in 2016 to be nearly 52 Billion dollars is anticipated to reach nearly 80 billion dollars in 2026. The knowledge and perceived health risk by the population with the most likely highest number of users (young females) is vital.

The result of the study would be useful for determining the magnitude of problem and for the design of effective educational intervention aimed at preventing and or controlling the utilization of cosmetics lips product at the university; especially as women of colour may happen to more exposed to toxic cosmetics products then the other women according to the Environmental working Group report.

3. Literature Review

Most women love wearing lipsticks and for good reason. But the burning question is are they good for you?

Some of the toxic substances found in lipsticks are Phthalates are harmful for the endocrine system. The

presence of lead causes long term health risks. Paraben are commonly found in lipstick and can easily penetrate into a skin. They are known to cause several side effects, including depression and diarrhea.

Lipstick contains petrochemicals which can cause major changes in the endocrine system. And if that happen, body can undergoes several issues in cognitive and reproductive abilities.

According to Thailand Medical news lipstick comes with some unavoidable side effect to one's health. Bisphenol-A (BPA) in lipstick containers cause infertility and cancer. BPA is an endocrine disruptors that has been found to cause fertility issues, birth defect, cancer and it can affect males who get kissed by users of the lipstick what we call as 'castrated kiss' as the affected male will end up getting the BPA into blood stream which will then effect his own fertility and reproductive organs.

The female gametes seems to be especially sensitive to BPA exposure and it has been linked with an increased risk of breast cancer and to the contribution Polycystic ovary syndrome as PCOS patient were found to have had elevated BPA levels in a cross sectional study of 71 women.

BHA (Butylated Hydroxyl Anisole and BHT (Butylated Hydroxyl Toluene) are closely related synthetic chemicals used as preservatives in lipstick. BHT may act as a tumour promoter in certain situation. Little evidence suggests that high dose of BHT may mimic estrogen, the primary female sex hormone, and prevent expression of male sex hormone, resulting in adverse reproductive affects.

A study by the Berkely School of public health at the University of California revealed that most lip glosses and lipstick available today contain harmful level of cadmium, aluminum, chromium, lead etc. What s more, the study also noted that continuous exposure to these levels could lead to a long term health issues, especially in those people who apply lipstick more than two or more times in a 24 hour a period.p

4. Research Methodology

Statement of the problem

A Study to Assess the Knowledge regarding ill-effect of Lipstick on Reproductive Problems amongst Female: Undergraduate Students, Mysuru.

Objective of the study:

Due to lack of studies in this regard, a study was performed to assess the knowledge about ill effect of lipstick on reproductive problems.

Research Approach

A research approach chosen for this study was descriptive survey approach to assess the knowledge regarding ill effect of lipstick on reproductive problems among college

girls, Mysuru. The research design selected for the study is non experimental descriptive design. The present study was conducted in a B. Sc nursing college Mysuru. The sample selected for study includes 50. The demographic variables and structured knowledge questionnaire tool is used to collect the data. . The sample were selected through purposive sampling technique. Data collected from 130 samples with the tool of Demographic Variables and structured questionnaire about lipstick and its side effect.

5.Result and Discussion

The primary aim of the study was to assess the knowledge regarding ill-effect of lipstick on reproductive problem among college girls. The researcher developed a structured knowledge questionnaire after having a comprehensive literature search in books, journals, newspaper article, internet articles and other sources.

The results are discussed in relation to objective of the study are as follows:

Section-I

Demographic variables:

Table-1: Distribution of demographic variables of the study sample

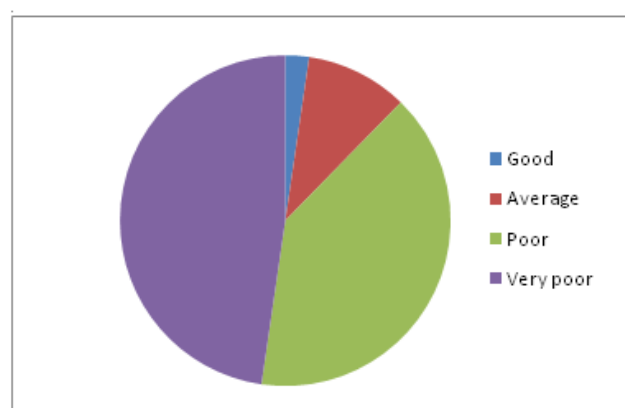
S. No	Demographic variables	Frequency (f)	Percentage (%)
1	Age in years		
	17-19	80	61.5
	19-21	50	38.4
2	Education		
	BA	35	26.9
	B. Com	45	34.6
3	Usage of lipstick		
	Yes	100	76.9
	No	30	23.07
4	Brand of lipstick		
	International	35	26.9
	Local	95	73.07
5	How often apply the lipstick		
	Daily-2 times	75	57.6
	Daily-1time	30	22.2
6	Weekly once	25	19.2
	Aware the composition of lipstick		
	Yes	119	91.5
7	No	11	8.46
	Aware the ingestion of lipstick while eating the food		
	Yes	120	92.3
	No	10	7.69

Section-II

Knowledge regarding ill-effect of lipstick on reproductive system

Results show that the majority of the girls are believed that the lipstick is used only for better appearance. Approximately 90% do not read the lipstick chemical composition and the majority use low -quality lipstick 75% percentage of girls unaware the chemicals used in lipstick, 80 percent believe lipstick is safe and 90 %uninformed of the side effect of lipstick on the reproductive system. Most of the girls are unaware of the risk of using lipstick during pregnancy or hormonal side effects of long term lipstick use.

Table 2 shows Frequency and percentage distribution of samples according to the level of knowledge.



Level of knowledge	Frequency (f)	Percentage (%)
Good	3	2%
Average	13	10%
Poor	52	40%
Very poor	62	48%

The data represents the above table 2 reveals that the knowledge score of the 130 samples, among that 48% had very poor knowledge and 40% had poor knowledge and 10% had average and 2% had good knowledge on ill effect of lipstick on reproductive system.

6.Conclusion

The findings revealed that the majority of the subjects 48% had very poor knowledge and 40% had poor knowledge, 10% had average knowledge, and 2% had good knowledge regarding ill effect of lipstick on reproductive system. The research further shows that students would continue irrespective of the possible risk.

7.Limitation & Implication

The study was conducted only on 130 subjects. So generalization is not possible. The study was limited on the college girls and assesses the knowledge aspect only.

Finding of the study have several implication for the following fields:

1. Nursing Education and General education

Study findings signifies that the younger girls are very fond of lipsticks and are unaware of the potential effects of chemicals used in cosmetics such as lipstick, lip gloss and so on. Hence the researcher felts that the importance of education to the girls about awareness of chemical composition of lipstick and other cosmetics so the investigator generally integrate findings into practice.

2. Nursing research

The investigator felt that it is vital to conduct various researches on the area reproductive complications of young girls about hormonal changes and PCOD, infertility etc due to the daily usage of chemical cosmetics like lipstick and make up products.

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