A STUDY OF COSMETIC TRENDS, ATTITUDE AND KNOWLEDGE TOWARD THE USE AND EXPIRY OF COSMETICS IN FEMALE POPULATION OF UAE

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ABSTRACT
The aim of the present study was to determine the cosmetics purchase trends in female population of UAE, popular brands and cosmetics associated side effects and consumer attitude and knowledge about expiry date of cosmetics. A questionnaire was prepared translated into Arabic and was distributed to a randomly selected female population age between 17 - 25 years in emirates of Abu Dhabi and Rasalkhaimh, UAE. The result of the survey indicated that most of respondents use cosmetics for beauty purposes on daily basis and purchase cosmetics once a month regularly. Choice of cosmetic products is based mainly on a specific trusted brand. Eye liner/ kohl found to be the most favourite cosmetics product. High percentage of individuals use make removal products for cleaning the face before going to bed. 53 % of the respondents revealed that they share / borrow cosmetics and a significant number of respondent use tester products in markets before purchasing cosmetics. Common side effect ever suffered with use of cosmetics is pimples/ acne and 33 % of respondents choose to ignore the side effects until they subside.

Key words: Cosmetics, eye liner, kohl, pimple, acne.

INTRODUCTION
From the immemorial times people have used cosmetics to enhance their personal appeal by using different kind of preparations. Tens billions of dollars are spent each year by women around the world on makeup and other cosmetic products. Generations of women have grown up fascinated by cosmetics. Grandmas and Moms pass on their tips to the next generation. When the granddaughter grows up she will pass on her cosmetic hints to her own granddaughter. While today’s cosmetics industry is amongst the most dominant markets, the
use of makeup has actually been with us for thousands of years. The earliest recorded use of makeup involved the Egyptians of the 4th Century before Christ. Scented oils, sheep fat based creams and eye paint were applied to beautify their facial feature.

According to FDCA 1938, in USA a cosmetic is defined as “an article intended to be rubbed, poured, sprinkled or sprayed on, introduced into, or otherwise applied to the human body or any other part thereof for cleansing, beautifying, promoting attractiveness, or altering the appearance without effecting structure or function. Cosmetics are used by both genders, but is predominantly used by more females than males.

Many people use cosmetics unaware of the potential dangers that can threaten their health while using them. From previous studies, researchers concluded that cosmetics such as lotions, shampoos and old facial and eye makeup have the ability to induce microbial growth and possibly cause infections if contaminated. Makeup can get contaminated during use, poor handling procedures during manufacturing and defects in preservative capacities of makeup. Nowadays the age range of female makeup users is very wide. The age that females begin wearing makeup gets younger and younger with every new generation. If consumers are knowledgeable about general handling methods of cosmetics then consumers should be able to have a low incidence of infection.

One of the oldest cosmetics firm is L’Oréal, was founded by Eugene Schueller in 1909. The market was developed in the United States during the 1910s by Elizabeth Arden, Helena Rubinstein, and Max Factor. These firms were joined by Revlon just before World War II and Estée Lauder just after. The growth of cosmetics and beauty products markets have surged significantly as consumers are increasingly becoming aware about appearance, beauty, grooming and choice of personal care products. According to a study conducted in 2006 there are more than 3,300 companies manufacturing and distributing cosmetic and skin care products in the United States alone.

In UAE, the beauty and cosmetics sector is experiencing extraordinary growth. Recent statistics reveal a category growth of 12 per cent annually and market value of $1.7 billion, which is expected to exceed $2.1 billion this year. It is estimated that Emirate women alone spend close to AED 1 billion (US $272 million) per year on beauty products and treatments. In recent years, working women with high disposable income spend more on cosmetics and beauty products and particularly international brands, which are more popular in the UAE.
According to Retail International, retail accommodation for beauty product retailers has grown 30% in the last three years to account for 25-30% of all retail space in the UAE. This rapid growth in cosmetics sales and market in UAE grabs the attention of beauty and skin care companies throughout the world. Paris Gallery, which has 26 outlets and controls around 60% of high-end cosmetics and fragrance sales in the UAE, is expected to see growth of more than 20% per year. The market's growth is also attributed to the region's demographics, with a population of young, fashionable trend setters with high disposable income. Due to the lack of local cosmetics manufacturers, most of companies selling cosmetics in the UAE are European and American.

**Methodology**

A questionnaire was prepared including around 16 questions and translated into Arabic. Before distributing the survey this project was approved by RAK MHSU ethical committee. Prior to conducting a pilot survey, the mini tab soft-ware version 16 was used to assist with finalizing the survey to ensure the collected data would address the over arching research questions to the extent possible and to check the validity and reliability of questions. The research questions that guided development of the survey were:

- What do female population between age 17-25 years used as makeup products?
- What are their beliefs about product expiry and safe handling of cosmetics during use and purchase?
- Is there an association between respondents’ age, product usage, brand preferences and demographic characteristics?
- What factors actually influence the purchase of cosmetics like influence of packaging and affect of financial state of the individuals on cosmetics purchase.
- Popular brands purchased by consumers.

For the purpose of this survey the cosmetics include makeup like lipstick, mascara, perfumes, nail-care items, and other related products. The first section asked of general use of facial makeup in which the responses where yes or no. If the response was yes, the participant would continue with the rest of the survey & demographic information and check of the types of makeup used and how often it was used and purchased, contributing factors to procurement. The next section of the survey concerned how makeup was removed, tendency of sharing makeup and using tester products and when it was replaced. The third section asked whether the participant had a facial problem due to makeup only and how they deal...
with it. And finally the participants were asked to list their favourite brands of cosmetics. The final survey script can be found in Appendix A of this article. The survey was conducted between December 2013 to January 2014. A total of 130 people responded to this survey. When estimating the sample size needed for a survey, one of the criteria included is the sampling error. The sampling error is defined as the level of accuracy liked to have in the results. In this survey, a random sample (N=130) was distributed in order to maximize results. For this calculation, a confidence interval of 95%, maximum variation (50/50), and the sample size that could be achieved was included. Response rate was determined and analysis of variance was run to find out any relation between age, frequency of use, purpose of use and demographic characteristics.

RESULT AND DISCUSSION

Table -1

<table>
<thead>
<tr>
<th>Different types of brands identified during the survey</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loreal</td>
</tr>
<tr>
<td>Mac</td>
</tr>
<tr>
<td>Labello</td>
</tr>
<tr>
<td>Maybellene</td>
</tr>
<tr>
<td>Nevia</td>
</tr>
<tr>
<td>Dior</td>
</tr>
<tr>
<td>Office</td>
</tr>
<tr>
<td>Guerlain</td>
</tr>
<tr>
<td>Bourjoris</td>
</tr>
</tbody>
</table>

Table -2

<table>
<thead>
<tr>
<th>Valid</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid percent</th>
<th>Cumulative percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Every day</td>
<td>63</td>
<td>6.3 %</td>
<td>6.3</td>
<td>6.3</td>
</tr>
<tr>
<td>Twice a week</td>
<td>12</td>
<td>1.2%</td>
<td>1.2</td>
<td>7.5</td>
</tr>
<tr>
<td>Once a month</td>
<td>3</td>
<td>0.3%</td>
<td>0.3</td>
<td>7.8</td>
</tr>
<tr>
<td>On occasions only</td>
<td>18</td>
<td>1.8%</td>
<td>1.8</td>
<td>9.6</td>
</tr>
<tr>
<td>Other</td>
<td>4</td>
<td>0.4%</td>
<td>0.4</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>10 %</td>
<td>10</td>
<td></td>
</tr>
</tbody>
</table>
Fig 1: Age distribution in years

Fig 2: Consumer feedback about the reason to use makeup

Fig 3: Percentage of different makeup brands preferred by females for different types of makeup
Fig 4: Purchase trend among consumers

Fig 5: Factors influencing consumer purchase habits

Fig 6: Makeup removal methods used by female
Fig 7: Response frequency of consumers who share / use tester make up products

Fig 8: Consumer Knowledge about Cosmetics expiry date

Fig 9: Types of side effects suffered by consumers
Fig 10: Consumer response about the treatment of cosmetic associated side effects

Fig 11: Consumer response about how they feel without wearing makeup

Fig 12: Response frequency of consumer about wearing makeup
Quantitative research involving a survey distributed manually or participants are being interviewed for randomly selected female (N=130) population in emirates of Rasalkhaima and Abu dhabi. The questionnaire was pre-tested on a randomly selected group of 25 women in order to questionnaire and ensure reliability. A total of 100 females participated (eligible candidates) in the survey the rest of 30 were excluded due incomplete, incorrect or multiple responses. Out of 100 eligible candidates 52 were UAE nationals and 48 were other nationalities residing in UAE which included Syrian, Egyption, Pakistanis, Iraqi and Indians mainly. 33 out of these were the residence of emirates of Abu dhabi and 67 were the residence of emirates of Rasalkhaimah. For the age distribution see Fig 1. Most of the participants in the survey were between 17-25 years of age except two who were above 25 years. Based on the figures and the size of the population, the sampling error for this survey was ±1.9%. To calculate the response rate the total number of eligible surveys was divided by total number of surveys distributed and the calculated response rate was 77%. See table -2 for more details. Overall, the average number of unique cosmetics brands used by female population identified was 21 (SD=3.97). Details of these identified brands can be seen in Table 1.

In response to question no-3 of the survey 46% of the females retorted that they are using makeup for beautifying purposes which indicates that cosmetics are used frequently among female adolescents because most of them are concerned of how they look. Furthermore, according to the European Chamber of Commerce Asian women use make-up to complement skin care and not to hide skin imperfections. 29% of this female population used decorative cosmetics to hide any imperfection on the face, 13% is using makeup for self-confidence and a very small percentage (9%) is using for civility. Check Fig-2 for details.

Out of 100 respondents 63% of individuals are using decorative cosmetics on daily basis (Fig -12) with 18% of individuals who used cosmetics only on occasions. A very small number percentage (3%) of females used makeup once a month and 12% are using it twice a week.

31 respondents reported that people feel that they are sick if they do not wear makeup (Fig -11), 21% reported that they loose confidence without wearing makeup which is indicating that cosmetics are an integral part of their personality tools to boost confidence. 18% of individuals feel fresh and healthy when they wear makeup every day.
To determine the purchase trend among the female population they were asked in the survey to mark their purchase trend on weekly, monthly and yearly basis. 42% of the female population is purchasing their cosmetics on monthly basis, 13 percent weekly and 17 percent yearly and 29 percent has a habit of purchasing when they run out of the item (Fig- 4). Factors that influence the purchase included brand, price, packaging and recommendation. A significant number of population (60%) is procuring specific brand that they trust and comfortable with. Second factor that contribute in shaping the purchase is price, 40% of the population choose moderate priced cosmetics, 21% of the population is buying cosmetics on friend’s recommendations and 7% on sales men recommendation during shopping. Only 18% of individuals get influenced with packaging of the cosmetics to purchase (Fig- 5). Which is in contrast to general behavior as they say consumers are strongly influenced by the packaging of products that they are considering buying. Marketers are well aware of this fact, and go to great lengths to create packaging that will draw in consumers and convince them to buy the product. This dynamic leads to a riot of competing colors, shapes and promises in supermarkets and shopping malls across the land.

It was found that 32% of the participant cannot give up on kohl/ eye liner, 25% cannot abandon the use of foundation / concealer. Third in this race is lipstick/lip gloss and mascara which is 16% and last in this category is blush on 11% only. From the results of this question it is clear that the favourite makeup item of adolescent females in UAE is eyeliner and kohol. Girls in UAE like to accentuate their eyes or make their eyes prominent.

When females were asked to mention the reason why they choose this particular brand for make-up varied responses have been registered as it was an open end question. For example one answer was “I choose Loreal lipsticks because of its high quality, nice shades and texture”. Other responses mentioned by consumers to choose lipsticks were natural shades, natural ingredient and nice smell. Dior has been found as the favourite brand for foundation because of its high quality, better looks, good blending capacity, natural appearance of face, longer stay, good shades range available and good covering properties. Maxfactor and Maybellene blush on has been chosen because it stay longer and good shades, Nyc is selected because it matches the skin tone, Bobi brown is for its variety of shades available, Mary kay is for good finishing, better texture and good blending properties, Lancome because its suits skin and Make up for ever is liked because it compliments the foundation base. Interestingly most of the eye liner/ kohl brands have been selected for the colour as most of the respondent
said: “because it gives dark colour” indicating the brand is being chosen to highlight the eye. Other factors to choose eye liner / kohl is easy to apply, stays longer, good texture and fast drying time. One of the consumer had chosen only brand for all types of cosmetics she is using and reason she choose this brand is because it is not tested on animals. See fig 3 for details.

A significant number of this female population removes makeup before going to bed (65%) and 39% do not bother to clean face before going to bed. 38% of the females are using specific make up removal products for cleaning their face, 21 out of 100 prefer wet tissues to remove makeup, 19 are washing face with soap and water, 10 percent rely on water only to remove makeup and remaining 10 will use other method for cleaning their face. As shown in Fig- 6, most respondents (65%) clean their face before going to bed every day, which indicates a relatively high level of awareness of skincare. A comparison of education level and frequency of cleansing revealed that there was a correlation (0.997) between the frequency of cleansing and the level of education. An explanation for the above cleansing frequency of the respondents could be a higher degree of awareness of skincare or may be due to access to this information or free availability of different channels to access such information.

It was shocking to see that 53% of the population either share or borrow makeup products and only 47% wisely not used or share their makeup products. In addition 62% of the participants are using tester products before purchasing the cosmetics, 21 percent refused to use any tester product in the market and 17 percent still are intended to use tester products before purchasing. See Fig- 7 for details.

In contrast to the high cleansing frequency among this female population it was found that most of the consumer are not knowledgeable about the expiry of cosmetics as 59% only dispose-off their makeup only when they run out of the item indicating that people keep on using cosmetics even if they get expired which can be harmful but it seems that people are not aware about this. Only 15% are renewing their makeup every year, 12 percent never throw away their cosmetics and 10 percent do not care at all what ever happens to a cosmetic product. From the result analysis of this question it can be seen that most of the adolescent female population do not know how to properly handle makeup, specifically, how to use and when to replace it etc. For example, ideally, mascara should be replaced on every three months and lipstick should be replaced every 2 years.
In spite of this high percentage of people who does not know about the expiry date of cosmetic, luckily 70% of the population never suffered any harmful effect associated with cosmetics only 30 percent have come across cosmetics related side effects.

A high percentage of people choose to ignore the side effects associated with the use of cosmetics if they appear at all. Only 27% will decide to go seek medical help or preferred to visit a skin specialist to solve their skin problems. 24 percent of the population chose to discontinue the use of cosmetics products if they are having any problem with its use. 14% decided to use skin care products on their own instead of seeking medical advice. 5 percent of the population will opt other methods to resolve their skin problems. A definite correlation (0.985) was found between the age and frequency of visiting a dermatologist, which indicates that age influences the decision whether to seek medical help or not. See Fig- 10 for details.

Appearance of acne/ pimple (Fig -9) has been observed (41%) in individuals using make up which can also be due to other reasons like hormones at puberty as most of the participants are aged between 17 -25. Second in this place is eye irritation (31%) which still cannot be associated with the use of cosmetics only. As no one was sure that whether this irritation in the yes develop due to which reason. Overall the probability of infection due to shared make up use / tester use only cannot be determined because there are numerous other factors that affect development of infection for example, whether a person uses a makeup properly or not or storage conditions, quality of make-up. Dry skin has been identified in 14 % of the participants as a cosmetics related side effects. 14 percent of participants reported the development of rash and no pigmentation or discoloration of the skin has been observed though.

From the above discussion it can be seen that there is a positive correlation between frequency of use, purpose of use and type of makeup preferred with age of the this female population (p>.05 to p<.10) but no significant relation was found between the demographic characteristics and brand preference, favourite type of makeup and product use frequency(p<.05).

CONCLUSION
From the results of the above survey it can be concluded that the favourite cosmetic of female population in UAE from age 17 -25 is kohl / eye liner independent of their demographic
characteristics. In additions, the consumers are well aware of the channels for purchasing cosmetics but might be neglectful of the various ways of avoiding undesirable effect. Also, it was noticed that who wear make-up regularly feel more confident and out-going than those who wear it occasionally.

ACKNOWLEDGEMENT
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Appendix -1

Demographics:
Age: National: Non-national: Qualification:

1). I wear make-up to:
2). To look beautiful
3). Hide imperfections
4). Civility
5). Confidence boost
6). Other

How often do you purchase make-up?
1). Once a week
2). Once a month
3). Once in a year
4). Occasionally
5). Only when I run out of an item

3) Factors that are most influential on my make-up purchase is (please choose more than one option if applicable)
a) Packaging
b) Price
c) Brand
d) Recommended by friends
e) Recommended by sales person in store
4) A make-up product I cannot give up is
a) Mascara
b) Eyeliner/kohl
c) Foundation/concealer
d) Lipstick/lipgloss
e) Blushon

5). Mention your favourite brand for the following cosmetics and state the reason why you preferred this brand.

6). Do you remove make-up before sleeping? If the answer is Yes, please choose method:
Yes / No
a) With water only
b) With make-up remover
c) Wet tissues
d) Water and soap
e) Other

7). Do you share/borrow make-up?
Yes / No

8). Do you use tester products before purchasing make-up?
a) Yes
b) Sometimes
c) No

9). Do you know about make-up expiry?
a) I renew my make-up purchases every year
b) I dispose of my make-up only when it runs out
c) I dispose if it smells funny/colour change
d) I never throw my make-up away
e) I don’t care
10). Have you ever suffered any of the following due to make-up? If the answer is Yes, please choose an option more than one option if applicable.

a) Pimples/acne    b) Rash/allergic reaction

c) Pigmentation and skin discoloration
d) Eye infection/ irritation    e) Dry skin

11). What will be your response if side effect appears at all?

a) Visit a dermatologist
b) Ignore it until it subsides
c) Discard used make-up
d) Use skin care products
e) Other

12). How do you feel without wearing make-up?

I look sick
I loose my confidence
I feel healthy / fresh
I don’t care
Other

13). How often do you wear make-up?

Everyday
Twice a week
Once a month
On occasions only
Other