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Prevalence and socio demographic factors associated with usage of skin lightening products among women of reproductive age in Mogadishu, Somalia.

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Abstract

Globally the use of SLP is on an increasing trend which has led to a significant growth of the cosmetic industry. However due to lack of proper regulation amidst social and cultural influences substandard SLP have found their way in the market. The use of substandard SLP have exposed women to mercury and corticosteroids which impacts negatively on health. Therefore the aim of this study was to investigate the rates of usage of SLP among women of reproductive age and the sociodemographic determinants. A survey was conducted using a semi structured questionnaire to collect data from 123 women of reproductive age in Mogadishu. The study employed a cross-sectional study design and random sampling was used to identify the study participants. The rate of usage of SLP among women of reproductive age in Somalia was 75.6% which was significantly higher than the global and continental rates. This basically implies that a high number of women in Somalia maybe exposed to mercury and corticosteroids which are the major active ingredients in the SLP. Sociodemographic factors that were significantly associated with the usage of SLP among women were age, marital status, level of education and occupation. In Somalia there are no laws and policies to govern the cosmetic industry and thus the abuse of SLP is on an increasing trajectory. In conclusion the Somalia government and partners in health should engage in mass sensitization on the negative impacts of SLP on health.

Introduction

Globally the use of skin lightening products for beauty purposes has become a norm among women. The use of skin lightening products has been popular for decades with predominance of use being in Africa and Asia (Al-Saleh, 2016).

Many women around the world aspire to have a light skin or fair complexion which has fueled the popularity of skin lightening products (Dlova, Hamed, & Grobler, 2015). The use of the skin lightening products has continued to increase despite the significant publications on the health effects as a result of long term use of the products. There is a huge market for the skin lightening products which is estimated to account for about 23 billion US dollars by 2020 (Research and Markets, 2020).

The skin lightening products normally contains mercury as a key ingredient. Mercury is used due to its ability to inhibit melanin and also due to its high absorption rate by the skin (Engler, 2005; Palmer et al., 2000). According to the US Food and Drug administration skin lightening products should only contain traces of mercury usually less than 1ppm. However studies have documented that skin lightening products with high mercury contents above 1 ppm find their way into the market (US FDA, 2011). Countries such as Kenya, Mexico and Brazil have taken a step further by introducing labelling systems aimed at informing the members of public of the mercury content in the skin lightening products (Ipen, 2010). Somalia lacks such legislation which further propagates the marketing and application of skin lightening products.

Application of skin lightening products predisposes the users to mercury toxicity. Actually studies have documented mercury poisoning among women using skin lightening products (Soo et al., 2003). Studies have cited that the systemic absorption and accumulation of mercury leads to gastrointestinal, renal and central nervous toxicity. Additionally studies have reported dermatological complications as a result of application of skin lightening creams (Ozkaya et al., 2009).

In Somalia the use of skin lightening products among women of reproductive age is a norm. Somalia women perceive a lighter skin to be more beautiful as compared to a dark skin (Adawe & Oberg, 2013). Furthermore Somalia women have confessed to use skin lightening products with the aim of removing dark spots after pregnancy. The women believe that a light skin is more acceptable and will thus increase their chances of getting married (Jannink, 2009). Studies have reported that the skin lightening products used by Somali women contains mercury and thus puts them at risk of developing health conditions (Adawe & Oberg, 2013). There is however scanty information regarding the rates of use of skin lightening products among women in Mogadishu. This study therefore aims to document the prevalence of use of skin lightening products among women of reproductive age in Mogadishu Somalia.

Methods

Study site

The study was done in Mogadishu the capital city of Somalia. Mogadishu is situated in the coastal section of Banadir region. Mogadishu sandy beaches are a key attraction to tourist in the city. The major economic activities in Mogadishu is business since it is a commerce and financial centre. Key features in Mogadishu includes Shebelle river which is a major water source in the city during the dry periods. Mogadishu experiences a hot and semi-arid climate. Being a capital city Mogadishu houses key government institutions, non-governmental institutions and institutions of higher learning (Wikipedia, 2022).

Study design

The study used a cross sectional study design which aided in identifying factors associated with usage of skin lightening products among women of reproductive age in Mogadishu.

Study procedure

Data was collected by trained data clerks using a semi structured questionnaire from 123 women of reproductive age. Simple random sampling was used to identify study participants within Mogadishu town. Ethical clearance to conduct the study was sought from Capital University ethical review committee. Furthermore permission to carry out the study was sought from the office of the Mayor. Additionally consent was sought from the study participants before commencement of the interview.

Data analysis and presentation

Data analysis was done using Statistical Package for Social Scientists (SPSS version 20). Descriptive analysis was done to determine the rates of usage, the duration of usage and the number of of skin lightening products being used by women of reproductive age in Mogadishu. Chi square test was done to determine socio demographic factors associated with usage of skin lightening products. The analysis was done at 95% confidence interval. Data was presented using tables and charts.

Results

Rate of use of skin lightening products among women of reproductive age in Mogadishu

Over three quarters of the study participants reported that they use skin lightening products while 24.4% do not.

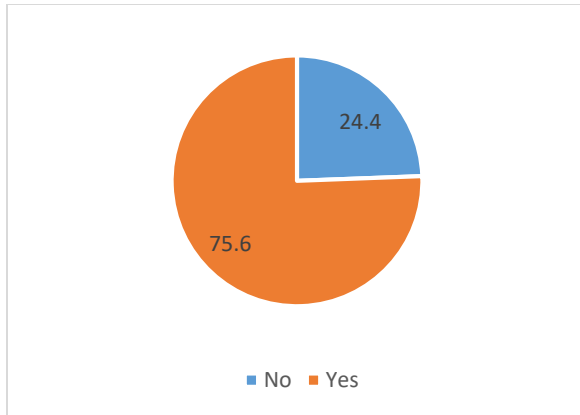


Figure 1: Prevalence of usage of skin lightening products among women of reproductive age in Mogadishu

A majority of the study participants had used the SLP for less than 1 year while the least had used the SLP for 6 to 9 years.

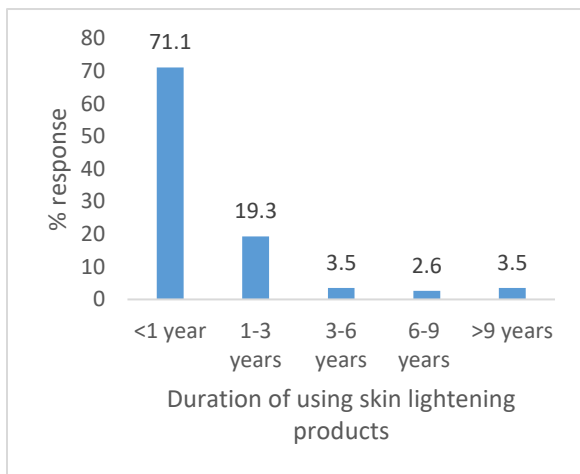


Figure 2: Duration of use of skin lightening products among women of reproductive age in Mogadishu

Half of the study participants reported that they only use one SLP, slightly over a quarter of the study participants reported to using two types of SLP while 13.8% and 9.5% reported to using more than three and three SLP respectively (Figure 3).

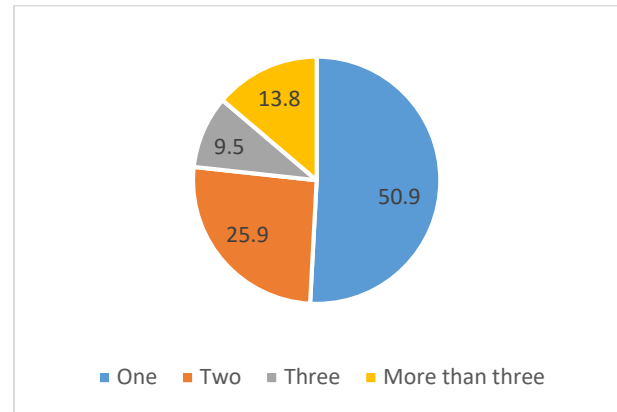


Figure 3: Number of skin lightening products being used by women of reproductive age in Mogadishu

Types of skin lightening products used by women of reproductive age in Mogadishu

Some of the key brands of skin lightening products used by Somalia women were Silky Cool, Gold Scrub, Seven Herbal Ubtan, Dermatove Cream, Noor and Shivanya as shown in figures 4a to figure 4e. A majority of these SLP contains active ingredients such as mercury and corticosteroids which have been documented to have negative health impacts.

Socio demographic factors associated with use of skin lightening products among women of reproductive age

Statistical analysis revealed that there was a significant association between age, marital status, level of education and occupation with usage of skin lightening products among women of reproductive age in Mogadishu ($p < 0.05$). With regard to age a majority of the respondents who used the skin lightening products were 18 to 35 years old while the least were 15 to 18 years old. With reference to marital status a high number of respondents who used the skin lightening products were married while the least were the divorced. In terms of level of education, a majority of the respondents who used the skin lightening products had primary level education followed by those with secondary level education while the least were those with tertiary or college level education. Additionally the usage of skin lightening products was high among formally employed respondents and least among farmers.

Table 1: Socio demographic factors associated with use of skin lightening products among girls and women.

Variable	Usage of skin lightening products		P value
Age	Yes	No	

	f (%)		
15- 18 years	14(11.4)	3(2.4)	0.048
18-35 years	63(51.2)	21(17.1)	
35-49 years	16(13.0)	6(4.9)	
Marital status			
Single	14(11.4)	3(2.4)	0.041
Married	71(57.7)	24(19.5)	
Divorced	8(6.5)	3(2.4)	
Level of education			
Primary	45(36.6)	22(17.9)	0.032
Secondary	30(24.4)	3(2.4)	
Tertiary	18(14.6)	5(4.1)	
Occupation			
Businesswoman	15(12.2)	12(9.8)	0.012
Farmer	17(5.7)	0(0)	
Formally employed	40(32.5)	15(12.2)	
Housewife	17(13.8)	2(1.6)	
Monthly income			
<100 USD	41(33.3)	10(8.1)	0.462
100-300 USD	37(30.1)	11(8.9)	
301-600 USD	10(8.1)	6(4.9)	
601-900 USD	3(2.4)	1(0.8)	
>900 USD	2(1.6)	2(1.6)	

Discussion

Women tend to use SLP for various reasons, a high number of women use SLP for cosmetic purposes while others use SLP to treat skin conditions such as melisma (Dadzie & Petit, 2009). In the present study the prevalence of usage of SLP was significantly higher than the rate reported among female health students in Somaliland (Yusuf et al., 2019). Equally the prevalence of usage of SLP among Somali women was significantly higher than the global rate (27.7%) and the continental rate (27.1%) (Sagoe et al., 2019). Additionally evidence

suggests that the prevalence of usage of SLP among women in Mogadishu was slightly higher as compared to the rates reported among adults in Accra Ghana (50.3%) (Lartey et al., 2017). The SLP are widely used in Asian and African countries like Somalia. In Somalia SLP are readily available in beauty shops in varying prices. There is no available regulation of the cosmetic industry in most African countries including Somalia and as a result the SLP tend to be used even by minors. As a result women who use these products expose themselves to dangers such kidney damage, skin rash, skin discoloration, anxiety depression, psychosis and peripheral neuropathy (Glahder et al., 1999; Ladizinski et al., 2011; Risher, 2003). It is worth noting that mercury which is one of the active agent in SLP is a teratogen transferrable through breast milk which thus endangers the life of an infant (Adawe & Oberg, 2013).

Socio demographic factors found to be significantly associated with the usage of SLP were age, marital status, level of education and occupation. Similarly based on a study conducted among university students in Asia age was identified a key factor associated with use of SLP (Peltzer & Pengpid, 2017). In the present study a majority of the study participants were 18 to 36 5 years and this population group may have a higher tendency of using SLP so that they may attract suitors for marriage. Furthermore evidence suggests that women who are aged 20 to 50 years are more likely to use SLP since they experience a high prevalence of acne and dyschromia (Dlova, Hamed, Tsoka-Gwegweni, et al., 2015).

In the present study marital status was reported to be significantly associated with the use of SLP with a majority of the women using the SLP being married. Potentially married women could be

using SLP so that they can be able to sustain their marriage. Other studies suggest that the perception among many communities is that a light skin tone makes a woman more attractive and thus may easily get married and also be able to keep her marriage (Hamed et al., 2010).

Ideally women of a higher level of education are expected to be more aware of the negative effects of using SLP while the reverse is true. In the present study a majority of the study participants had a primary education. Evidence suggests that due to poor level of education women believe that the use of SLP may not have any effects on their skin. Furthermore studies have documented that a majority of the uneducated women are not aware of the active agents on the SLP and their documented health effects (Alrayyes et al., 2019). The lack of awareness on active agents on SLP underscores the need of consumer education by sales persons and pharmacists on the effects of the active ingredients on the SLP on health (Hamed et al., 2010). Interestingly studies suggests that the use SLP still persists even among the very educated women in the society. The use of SLP among the highly educated women could be as a result of exposure to marketing of contemporary images of white beauty (Peltzer et al., 2016).

Occupation was another factor significantly associated with the usage of SLP. Ideally occupation has a direct correlation with income as well as social status. Interestingly evidence suggests that women in middle and low economic class are more likely to use the SLP (Peltzer et al., 2016). Studies have documented that a significant number of women in middle and low income classes perceive the use of SLP as a means of enriching themselves (Halder & Nootheti, 2003). Similarly based on a study done in Saudi Arabia women from poor socio

economic class were reported to have a high tendency of using SLP (Alrayyes et al., 2019). Previous studies suggests that the association of light skin with the perception of being wealthy and of high social economic class inspires women to use the SLP (Hamed et al., 2010).

Conclusion

The rate of use of SLP among women of reproductive age in Somalia was significantly higher than the global rates (27.7%) and African rates (27.1%). The high usage of SLP in Somalia could be attributed to regulatory gaps, social and cultural factors. Sociodemographic factors that were found to be significantly associated with the use of SLP among women in Somalia were age, marital status, level of education and occupation.

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Conflict of interest

The authors declares no conflict of interest.

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