

Influence of Body Image on Skin - Bleaching Behavior among Women in Nairobi County, Kenya

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Abstract: Skin bleaching is a centuries - old behavior involving the use of beauty products like creams and soaps to whiten the skin. Past studies indicate that skin bleaching is common despite the notable negative implications for the user. Skin - bleaching products are commonly used in Nairobi County as indicated by flourishing businesses retailing cosmetic products. The current study examined the influence of body image variable on skin bleaching behavior among women in Nairobi County. Objectification Theory guided the study, and descriptive design, incorporating both quantitative and qualitative approaches, was used. Purposeful sampling was used to recruit 138 women. The study recruited users of skin - bleaching products who frequented cosmetic retail shops within Nairobi County. Self - administered questionnaires were used to collect quantitative data from 138 participants while interviews involving 10 participants yielded qualitative data. The tools used in data collection were piloted to ensure their validity and reliability. Quantitative data were analyzed using descriptive statistics like frequencies, mean, percentage, and standard deviation. Findings were presented in tables. Qualitative data were analyzed thematically and presented verbatim. The average mean score of the aggregate items measuring body image was 2.94 (indifferent). Correlation analysis denoted a 0.194 correlation between body image and skin bleaching, with a p - value of 0.031. Regression analysis revealed that body image was a significant predictor of skin - bleaching behavior with an R - square value of 0.038 and a p - value of 0.031. It was concluded that body image had a significant influence on skin - bleaching behavior among women in Nairobi County. The study recommends that psychotherapists and public health officers should reference the study while empowering women on skin - bleaching at discrete and community levels. Other studies focusing on other variables influencing skin - bleaching behavior need to be done to further explore this noteworthy research subject.

Keywords: Skin - Bleaching Behavior, Skin Bleaching Products, Body Image, Women

1. Introduction

The global use of skin lighteners (bleaching agents) is an old phenomenon. The practice is global and ancient as evidenced by the archaeological findings that indicated that the practice was common in Ancient Egypt around 4000 BC (Apuke, 2018). Also, the global use of skin - bleaching agents cosmetologically has been in existence in Africa for centuries, as documented in archives (Durosaro et al., 2012; Street et al., 2014). In the past, the use of essential locally obtainable skin bleaching products or complicated imported bleaching agents was dependent on their availability and affordability (Kim et al., 2021). Today, nevertheless, the production of these materials has become commercialized and global, making the cosmetic industry a fabulous one (Jablonski, 2012). There is a worrying trend that cosmetic products have been proven to contain harmful components such as mercury, steroids, and hydroquinone (Benn et al., 2016; Durosaro et al., 2012; Oyediji, 2017; Street et al., 2014). These harmful ingredients have been demonstrated to be in amounts that exceed the legal limits even in countries with strict regulatory systems such as the European Union and the USA (Benn et al., 2016). The other worrying research findings are that access to various illegal bleaching agents has been made easier through immigration, global travel, as well as online purchases (Benn et al., 2016). While measures have been put in place to regulate the use of cosmetic products with the potential of causing harm to the user, studies have indicated different reasons as to why the demeanour is common. The purpose of

the current study was to examine the role of body image in the continued behaviour of skin bleaching among women in Nairobi County, Kenya.

Skin - Bleaching Behaviour

Skin bleaching behaviour is a global practice. Hermans (2021) demonstrated that the cosmetic industry in the United Kingdom has greatly advanced substantially in that in the recent times people are going for advanced cosmetic procedures such as the use of chemical peels (Hermans, 2021). Buisson, 2020 projected growth in the non - surgical cosmetic industry in the UK estimated at £3.6 billion in 2021. The market has not been without hiccups in that health complications have been reported after cosmetic practices. The Medical Defense Union in the UK report high (45%) success in negligence claims associated with skin - bleaching practices (Griffiths & Mullock, 2017).

In Europe, the cosmetic industry is advanced and there are regulatory laws that consider possible solutions to ensure safety among the users of cosmetic products (Kim et al., 2021). The EC Cosmetic Regulation 1123/2009, however, does not control personalized cosmetic products (Eixarch et al., 2019). Likewise in Korea, the republic's Cosmetic Act does not regulate customized cosmetics (Kim et al., 2021). The challenge is not unique to the two countries but also to America because the USA's Federal Food, Drug, and Cosmetic Act does not control the business of customized cosmetics (Kim et al., 2021; Quinonez et al., 2022). Lack of

adequate control has contributed to the occurrence of side effects associated with the unmonitored use of cosmetics. The use of skin - bleaching agents remains more popular throughout the African continent (Ladizinski et al.2018; Nimako, 2016) in countries such as South Africa, Kenya, Togo, Nigeria, Tanzania, Sudan, Senegal, and Ghana (Durosaro et al., 2012; Oyediji et al.2017; Street et al.2014; Ladizinski et al.2018).

In Kenya, the beauty industry is estimated at Kenya shilling 100 billion and growing at a rate of approximately 400% per annum (Mputhia, 2022). The cosmetics black market is popular along River Road Street in Nairobi's central business area and in Eastleigh shopping malls (Matara, 2017; Muindi, 2016). Similarly, the more orthodox Kenyan aesthetic market is flush with beauty products, that promise users a fairer skin tone in a convincing manner displaying before - and - after use images implying that lighter, blemish - less skin is preferable (Jannink, 2009; Muindi, 2016). The readily available bleaching products are Olay white radiance brightening intensive cream, glutathione pills, Kojic acid soap, and Caro light beauty products among others (Matara, 2018). The Kenyan government has put in place several regulatory laws to govern the use of cosmetic products because they have been proven to be injurious to users. However, the use of skin - bleaching products is extensive among women living in Nairobi County.

Body Image

Body image is one of the psychological factors that has been associated with the use of skin - bleaching products. Australian neurologist Paul Schilder coined the concept of body image which refers to the mental picture an individual forms about one's body including the physical appearance and an individual's attitudes towards the body appearance (Tiwari & Kumar, 2015). Researchers believe body image has cognitive, behavioural, and emotional components. The way one sees himself/herself (perceptual self), how one feels about the way one looks (affective self), their beliefs and thoughts about their body (cognitive), and what they do regarding the way one looks (behavioural). Humanity has always valued body attractiveness. Societies produce propaganda pictures of women's and men's ideal physique, which people internalize during socialization (Tiwari & Kumar, 2015). The study by Rusmadi et al. (2015) white - skinned women were more and that men considered women with white skin as more gorgeous. The findings support the presupposition that people have been socialized to believe in ideal beauty (Rahman et al., 2021).

Other societies have persuaded their members to believe that having light skin carries many privileges hence dark - skinned persons may contemplate whitening their skin. Colonial racism in Africa contributed to a preference for lighter skin (Rusmadi et al., 2015), and colonial racial systems favouring light skin exacerbated racial preferences (Rahman et al., 2021). Skin beauty should be emphasized while discussing ideal body image. In the internet age, there is a strong interest in beauty or the ideal body image, as seen on Instagram and Facebook. Such platforms enable the use of augmented - reality tools such as filters that make it possible to alter natural looks. Artificial beautification using filters lowers a person's self - confidence in his/her natural look. The perceived ideal

looks and low self - esteem push an individual to use skin - bleaching products to match the ideal looks they often see on social media platforms (Sharma et al., 2022).

Beauty's pursuit is only surpassed by its acquisition. Past studies on skin - bleaching products suggested their usage is increasing in places with increased modernity, capitalism, and Western influence (Rahman et al., 2021). Whiteness has been portrayed as the ultimate beauty, and its "purity" has been preserved (Olumide et al., 2018; Rahman et al., 2021; Sharma et al., 2022).

Statement of the Problem

Skin bleaching agents are ideally an option for fairer skin. However, studies have associated the products with negative biological, psychological, and social - economic implications for users (Olumide et al., 2018; Balekyani, 2017). The behaviour is condemned openly within society as well as by the international community. Governments have passed laws to regulate the use of cosmetic products. For instance, there are mounting public education campaigns by the Kenyan government against the consumption of skin - lightening products (Durosaro et al., 2012). Despite the measures put in place, the black market in Nairobi is flooded with products containing harmful components (Muindi, 2016). Studies have indicated that psychological, social, and biological factors are behind the high demand for cosmetic products. Society has socialized its people that white skin is superior to dark skin. This is because light skin tone is perceived as symbolizing prominence, superiority, beauty, sex appeal, and higher social ranking (Alghamdi, 2017). It's evident that some women including European women (naturally white) mainly use skin - bleaching products to achieve even skin. This is because it is common for one's skin to develop sunburns, acne, and other skin pigmentation anomalies because of getting exposed to heat and due to the natural process of aging. As such, some women use skin - bleaching products to achieve and maintain radiant skin (Alghamdi, 2017). Previous studies have been conducted in other regions, focusing on specific populations, and using various study designs to examine factors associated with the use of skin - bleaching products. Despite the existence of a pool of information regarding skin - bleaching behaviour, implications, and precautional measures, there is hardly any information on psychosocial factors that motivate the continued use of skin - bleaching products in Nairobi County, Kenya. However, data indicating how psychological factors such as body image have sustained the behaviour of skin - bleaching irrespective of their negative implications are scarce. The current study, therefore, examined how body image, contributed to the continued use of bleaching agents despite the common knowledge that these products hurt the user.

2. Materials and Methods

The study adopted a descriptive study using both qualitative and quantitative approaches to data collection and analysis. The research explored the influence of body image on skin bleaching among women in Nairobi County. The current study targeted women who went to purchase skin - bleaching products from retail shops within the Nairobi central business area. Sample determination was guided by Andrew Fisher's formula. The researcher used a purposeful sampling

technique to recruit 138 women within the age bracket of 20 to 60 years who purchased skin - bleaching products from retail shops within Nairobi County. 10 out of the identified 138 participants were interviewed. Pre - testing the tool ensured that the tool captured what it was intended to test. The piloting was done by administering questionnaires to 10 respondents and interviewing one respondent. The obtained data was analysed and yielded a Cronbach coefficient with an alpha value above 0.7 ($\alpha \geq 0.82$). Calculating Cronbach's alpha helped in determining the reliability of the tool used.

3. Results and Discussion

The data collected in the study were both quantitative and qualitative. Quantitative data were analysed using descriptive statistics which included standard deviation, percentages, and mean. Qualitative data were analysed thematically and presented verbatim. Statistical inference was achieved using model analysis and regression analysis. Findings were presented using tables, frequencies, and cross - tabulations.

Response Rate

The study recruited 138 participants and only 123 managed to successfully fill out and return the questionnaires. The study's

response rate was, therefore, at 89% and additionally, ten interviews were successfully conducted.

Demographic Findings

Demographics on the products commonly used by women indicated that Caro Light was the most commonly used brand (18.5%). The findings implied that there were numerous skin - lightening products readily available in the market. 93 participants (75.6%) started using skin - bleaching products while in the age bracket of 20 - 24 years, 13 at ≥ 30 years (10.6%), 9 at 25 - 29 years (7.3%), and 8 at 15 - 19 years (6.5%). Findings on the period of use indicated that 93 started using skin - bleaching products while in the age bracket of 20 - 24, 13 respondents in the age bracket of ≥ 30 years, followed by 25 - 29 years (9), and the least age of initiation was 15 to 19 years age bracket (8). Lastly, findings on body parts targeted for bleaching indicated that women involved in skin - bleaching behaviour mostly applied the products on their face (37); face and hands (30); face, hands, and legs (30); and the whole body (26). The obtained findings indicated that 20 - 24 years is the most likely age bracket when women start engaging in skin - bleaching behavior. This could be because most women in this age group have the freedom to make independent choices on what they prefer for personal use, have independent sources of income, and are likely to be searching for a spouse to settle with in the future.

Table 1: Response Rate & Demographics

Item	Category	Percentage	Comment
Response Rate	Responses	89%	High response rate.
	Non - responses	11%	
Product Preference	Caro lite	18.5%	Highly diverse.
	Turmeric Lemon Oil	12 %	
	Qasqas	10 %	
	Others	1 - 8 %	
Age of Initiation	15 - 19 Years	6.5 %	Highly biased to 20 - 24 years.
	20 - 24 Years	75.6 %	
	25 - 29 Years	7.3 %	
	≥ 30 Years	10.6 %	
Period of Use	1 - 5 Years	43.9 %	Highly biased to 1 - 5 years category.
	6 - 10 Years	34.9 %	
	11 - 15 Years	13.8 %	
	≥ 16 Years	7.3 %	
Body Part Targeted	Face	30.1 %	Highly biased to Face.
	Face & Hands	24.4 %	
	Face, Hands & Legs	24.4 %	
	Whole Body	21.1 %	

Descriptive findings

The researcher explained the obtained data. The responses were rated using a scale of 1 to 5 where; Strongly Agree (5), Agree, 4), Not Sure (3), Disagree (2), and Strongly Disagree (1).

Descriptive Findings on Skin - Bleaching Behaviour

The highest mean was 3.52, agreeing that skin - bleaching products were likely to cause harmful effects on users. The lowest mean was 2.17, showing indifference in the view that price consideration in deciding the product to use for skin bleaching was relevant to users. The aggregate mean was 2.88, indicating indifference to the views regarding skin - bleaching behaviour being common among women working in Nairobi. The highest standard deviation on responses was

1.5, implying that respondents had different views on experimenting with different skin - bleaching products. Standard deviations on the issue of the likelihood of side effects were the lowest (0.97), indicating a higher level of harmony in the respondents' views. The study findings were like the reports obtained from the interviews as reported verbatim:

Participant SK004: *I used different products before settling on the product that has given me the results I like.*

Participant SK008: *I have used only one product since my teenage and I love the outcomes.*

Participant SK003: Level of income may not necessarily determine skin bleaching behaviour because the products are readily available and vary in price.

Participant SK001, 004, 007, 010: Most women who use skin products regret using them because their skin looks terrible.

The results imply that price consideration was the issue of least concern among the respondents on skin bleaching behaviour. The study findings correspond to those obtained in other studies showing that the use of bleaching agents does not necessarily lead to the desired aspects of beauty (Bhattar et al. 2015; Durosaro et al., 2012; Nimako, 2016; Street et al. 2014). However, the study did not demonstrate that factors

such as availability of the skin - bleaching products and purchasing power influenced skin - bleaching practice as were the findings in the studies by Bhattar et al. (2015) and Durosaro et al. (2012). The findings that skin bleaching has negative implications correspond to the findings from other studies that skin bleaching is associated with the development of wrinkles, dark or red areas, and irritation (Benn et al., 2019; Chan et al., 2019; Faruquee et al., 2012). The findings that skin - bleaching beauty products are readily available and affordable supported the findings from the study by Muindi, (2016), which indicated that the cosmetics market is flourishing within Nairobi County.

Table 2: Skin - Bleaching Behaviour

Qn.	Statements	Mean	STD
1	I know the existence of a variety of skin - lightening products, and I have experimented with different products.	2.28	1.5
2	Price is an important aspect to consider in selecting skin - lightening products.	2.17	1.2
3	The active ingredient is an important criterion for selecting skin - lightening products.	3.16	1.3
4	Skin - lightening product gives the expected results.	3.27	1.3
5	Skin - lightening products may cause some undesired effects on user's skin.	3.52	0.97
	Aggregate Mean	2.88	

Descriptive Findings on Body Image

The findings revealed that the lowest mean score was 2.66, indicating indifference in the view regarding other people's judgment on one's skin had significant implications on skin bleaching behaviour. The highest mean score was 3.23 (agree), an indication that participants agreed that white and spotless skin was an indicator of beauty.

The findings from the interviews support the above results as reported verbatim:

Participant SK005: With some jobs, one must bleach her skin because it's about how people see you and not how one feels about her looks.

Participant SK 001, 0004, 006, 007, 008, 010: It is common to see good - looking women still bleach their skin thus the behaviour is influenced by how one considers her looks.

The study findings indicate that body image had some influence on skin - bleaching behaviour among a few women working in Nairobi. The findings support the study results demonstrating that some people are persuaded by their societal beliefs that having light skin carries many privileges and skin - bleaching behaviour provides a more fashionable look (Rahman et al., 2021). Similar findings were reported in the study by Yusuf et al. (2019), which indicated that women who use skin - lightening products believed that light skin increased their chances of securing a job, and attracting a spouse, and that light - skinned women were more confident and beautiful.

Table 3: Body Image and Skin Bleaching

Qn. No.	Focused issue	Mean	Standard Deviation
1	I believe having lighter skin implies I belong to a higher social class.	3.08	1.09
2	According to me I look more beautiful when my skin is light and with no blemishes unlike when my skin is dark and uneven.	3.23	1.08
3	I believe skin looks play a big role in securing a job.	3.01	1.11
4	I'm walking down the street and notice that people are taking a quick look in my direction; I feel that they are somewhat likely judging my skin appearance.	2.66	1.02
5	If someone makes a negative comment about my skin complexion, I feel hurt and wish I could be invisible.	2.72	0.99
	Aggregate	2.94	

Inferential Statistics

Inferential statistics helped to draw conclusions, generalize, predict, and make estimations based on obtained data. The study conducted inferential statistics, including model summary and coefficient analysis.

Model Summary

The stepwise regression model showed an R square of 0.038, an indication that the model explains 3.8 % of skin bleaching behaviour and is significant at a p - value of 0.031. The proportion explained by the model, though significant, is quite small. This means that other possible factors not addressed in the study explain the remaining percentage.

Table 4: Model Summary

Model Summary. Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin - Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.194 ^a	.038	.030	.59889	.038	4.741	1	121	.031	1.790
a. Predictors: (Constant), body image.										
b. Dependent Variable: Skin - bleaching behavior;										

Coefficient Analysis

The simple regression analysis indicated a beta coefficient of 0.194 and a p - value of $0.003 < 0.05$, showing a statistically significant positive connection between skin - bleaching behavior and body image. The findings nullified the study's

null hypothesis that stated: There is no significant relationship between body image and skin - bleaching behavior. The hypothesis p - value was 0.003, suggesting that there was a 0.3% possibility the findings were random.

Table 5: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.231	.303		7.372	.000
	Bod	.221	.101	.194	2.177	.031

The coefficient results in regression equation for this study is as:

$$Y = \alpha + \beta X + e$$

Where Y= dependent variable

X= independent variable

β = standardized beta coefficient

α = regression equation constant

e = error term

Therefore:

$$\text{Skin bleaching behaviour} = 2.231 + 0.194 (\text{body image})$$

The equation indicates that for every unit change in body image, there would be a change of 0.194 units in the skin bleaching behaviour. This implies that as issues of body image increase in a woman, the chances of engaging in skin - bleaching behaviour increase.

4. Conclusion

The survey's conclusion was body image, depicting how a woman perceives her appearance regarding societal, set standards for beauty, significantly influences skin - bleaching behaviour among women.

5. Recommendations

The researcher recommends that:

- 1) Government policymakers should recommend measures that are geared towards addressing the issue of body image, to successfully control the use of skin - bleaching products.
- 2) Therapists intervening in skin - bleaching behaviour should focus on empowering women to accept themselves as they are and encourage society to stop stigmatizing women based on their natural looks.
- 3) There is a need to conduct similar studies in other areas in Kenya to ascertain if similar findings will be obtained.
- 4) There is a need to conduct studies focusing on testing different variables that are possible predictors of skin - bleaching behaviour.

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