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September 2019

# HEALTH INFORMATION LITERACY ON THE RISKS OF USING SKIN BLEACHING PRODUCTS

Olufemi K. ARAMIDE, PhD

*The Polytechnic Ibadan, Nigeria, femaramid@yahoo.com*

Olusoji S. OLATUNJI

*The Polytechnic Ibadan, Nigeria, sojioustimilehin@gmail.com*

Olusola AYANDELE

*University of Ibadan/The Polytechnic Ibadan, solaayan@gmail.com*

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## **Health Information Literacy on the Risks of Using Skin Bleaching Products**

ARAMIDE, K. OLUFEMI, PhD

Department of General Studies, The Polytechnic, Ibadan, Nigeria.  
femaramid@yahoo.com

OLATUNJI, OLUSOJI, S.

Department of Mass Communication, The Polytechnic Ibadan, Nigeria.  
sojioustimilehin@gmail.com

AYANDELE, OLUSOLA

Department of Psychology University of Ibadan, Nigeria  
Department of General Studies, The Polytechnic Ibadan, Nigeria  
solaayan@gmail.com

### **Abstract**

*Information enables individuals to develop knowledge which can influence their health behavior and attitude while inadequate literacy about health information is associated with poor understanding of medical advice and negative health outcomes among the population. Skin bleaching is a health practice involving the (mis)use of chemical solutions to change one's complexion to a lighter tone. This paper investigated the viability of using the concept of health information literacy to reduce skin bleaching by reviewing previous empirical studies on skin bleaching with emphasis on health information. Finding showed that skin bleaching is driven by a self-destructive, unattainable beauty standard. It also revealed that health literacy can educate individuals about the risks and adverse effects of skin bleaching on one's health and physical appearance, thereby reducing the likelihood of skin bleaching and its negative consequences. The study therefore recommends that the media and other information gatekeepers/professionals should use health information to promote healthy skin care practices and the "black is beautiful" message.*

**Keywords:** Health information literacy, skin bleaching, health literacy, self-esteem, dermatology.

## **Introduction**

Educated people are more able to read, analyze and understand and evaluate the risk and benefit of their decisions. Education has been described as “medications against fatalism”. Individuals who are better educated are more aware of health problems, know more about availability of health care service, and use this information more effectively to maintain or achieve good health status (Aramide, Oduroye and Alagbe, 2013). They are also more likely to seek, understand and use information pertaining to their health and less likely to engage in dangerous health practices. Therefore, our level of literacy can influence our ability to act on health information and take more control of our health as individuals, families and communities.

Literacy, an individual’s ability to read and write, is used to describe a person’s knowledge about a particular topic and ability to understand and communicate abstract ideas. Individuals with adequate literacy about health issues can read, understand, and act on health care information (American Medical Association, 1999). Therefore, health literacy can be defined as a constellation of skills that are required to function in the health care environment (American Medical Association, 1999). The concept of health information literacy was introduced to increase health literacy by fostering an understanding of the role that health information literacy plays in empowering people to read, understand, and act (Medical Library Association, 2003).

Skin bleaching, also known as skin lightening, toning, or whitening, is the cosmetic (mis)use of toxic agents (e.g., mercurial) or abuse of skin lightening agents (e.g., topical corticosteroids) to change one’s natural skin color (Sagoe, Pallesen, Dlova, Lartey, Ezzedine, and Dadzie, 2019). The application of skin lightening products alters the chemical structure of the skin by inhibiting the synthesis of melanin (Olumide et al., 2008). 77% of women in Nigeria use skin bleaching products whose side effects include skin inflammation, fragile skin, tissue discoloration, acne, eczema, poor

wound healing, body odor, and more serious health risks like hypertension, diabetes, skin cancer, blindness, birth defects and death (Olumide et al., 2008; World Health Organization, 2011).

### **1.1. Statement of Problem**

Despite the negative consequences of skin bleaching and its detrimental effects on the physical and mental health of the skin bleachers, many individuals still use the deadly products. The widespread use of skin bleaching products is a public health issue due to the deleterious health side effects, but as far as this study is aware, there are no published reports examining the nature of the relationship between health information literacy and skin bleaching behavior. This evidently dearth of research on how health information literacy relates with skin bleaching constitutes an issue that should be addressed. This study aspires to demonstrate how low level health information literacy affects skin bleaching phenomenon. The paper therefore provides health information literacy about the dangers of skin bleaching.

### **Theoretical framework**

Health information literacy can be explained using behavioral, relational, and socio-cultural theoretical perspectives (Yates, 2013). Behavioral perspective stresses the importance of skills and competencies of a person. Relational theoretical perspective places emphasis on information literacy as individuals themselves experience it. Socio-cultural theoretical perspective focuses on the social settings in which health information literacy is developed.

There is an interactive relationship between behavioral, relational, and socio-cultural theoretical perspectives as the skills and competence of an individual is influenced by the experiences of the individual which are influenced by the socio-cultural practices of the person's environment. The theory assumes that health information literacy affects the ability of a person to be in a good state

of health, interact with the health care and education systems, and influenced by social and cultural factors (Yates, 2013).

### **Health Information Literacy**

Health literacy refers to a working knowledge of disease processes, self-efficacy, and motivation for actions regarding health issues. According to the U.S. Department of Health and Human Services, it is “the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions” (Institute of Medical Report, 2004). Health literacy integrates ideas, resources, and professionals from both the health and literacy fields and also encompasses the educational, social and cultural factors that influence the expectations and preferences of the individual, and the extent to which those providing health care services can meet those expectations and preferences.

Not having the information one needs or knowing where to get such information leaves one wanting and powerless. Information literacy is indeed the root of information, as information plays critical role in facilitating and improving the educational, social, occupational, and economic goals of individuals. The combination of health literacy and information literacy has become one of the main pillars of ensuring qualitative healthcare due to “its abilities to recognize a health information need; identify likely information sources and use them to retrieve relevant information; assess the quality of the information and its applicability to a specific situation; and analyze, understand and use the information to make good health decisions” (Medical Library Association, 2003).

A study (Wolf, et al., 2012) examining the readability, suitability, and comprehensibility of 185 medication guides revealed that the understanding of the medication guides was poor and marginal literacy was associated with poor understanding. The authors concluded that current medication guides were of little value to patients due to complexity and difficulty of patients’ understanding

the content (Wolf, et al., 2012). Another study (Aramide (2012) revealed that women with adequate health information literacy can read, understand and act on healthcare information.

### **Poor health information literacy**

Efforts to improve quality, reduce disparities and reduce costs cannot succeed without improving health literacy. Poor health information literacy is a stronger predictor of a person's health than age, income, education level and employment (American Medical Association, 1999). People with limited health information literacy are more likely to skip preventive health care, wait until they are quite ill before seeking care and make use of emergency rooms. This same source also reports that limited health care literacy is associated with increased complications resulting from chronic illnesses such as diabetes, heart disease heart failure, asthma, hypertension, and HIV (American Medical Association, 1999). Low health care literacy results in shame for the people involved and as a result people often try to hide their literacy deficits. This lack of understanding regarding instructions for care and medications contributes to a lack of compliance. This leads to continued poor health and morbidity and even untimely death due to failure to treat and manage potentially treatable conditions. This is a critical issue that significantly impacts our whole country and economic system.

### **Adequate health information literacy**

High level of health information literacy will enhance the ability of individuals to analyze risks and benefits of proposed medical treatments or procedure, interpret test results, calculate and measure dosages of medications. It will also increase their ability to locate the needed health information to assist in these tasks.

## **Skin bleaching**

Dissatisfaction with one's body is now a 'normative' experience for many people. This 'normative discontent' results in people changing their body in order to 'improve' their body image and appearance. Many individuals reduce or increase their weight or specific body parts like hip, waist, breast or buttocks while others change the color of their skin using various techniques.

Skin bleaching involves the application of chemical solutions for the removal of the upper surface of the skin and inhibiting the synthesis of melanin to achieve a lighter skin color (Charles, 2009; Durosaro, Ajiboye and Oniye, 2012). The phenomenon involves the use of chemical products marketed as skin lighteners, brighteners, toners, whitenicious, or whiteners; facial cleanser, mask, or moisturizer; and anti-aging, sun-block, fading, or fairness creams (Mire, 2001).

## **Motives for skin bleaching**

An examination of factors motivating people to bleach their skin is of interest to researchers who traced the origin to Eurocentric beauty standards, slavery, colonialism, white supremacy, external racism by whites, internalized racism by blacks, and unyielding conceptions of femininity and masculinity as it relates to race and skin tone (Blay, 2011; Gabriel, 2007; Hunter, 2013). The motives behind skin bleaching are driven by multifaceted factors that are historical, social, cultural, economic and psychological in nature (Blay, 2011). Other researchers (e.g. Lewis, Robkin, Gaska, and Njoki, 2011) conceptualized the motivations as being tied to the remnants of slavery, colonization, and globalization.

Some individuals with naturally fair complexion still use the bleaching creams to "maintain" the light skin color and prevent tanning or dark spots from sunlight (Dlova, Hamed, Tsoka-Gwegweni, Grobler, and Hift, 2014; Olatunji, Popoola, and Ayandele, 2019) while removal of pimples, rashes, skin disease and previous skin-bleaching adverse effects on the body; need to satisfy, attract and impress mates of the opposite sex and peers; secure a job, and desire to have a soft, white,



“attractive,” and more European looking skin are the other major reasons women in Africa engage in skin bleaching practices (Kpanake, Sastre, Sorum, and Mullet, 2008; Lewis, Robkin, Gaska and Njoki, 2011). The images on mass media also influence some people to engage in skin bleaching (Lewis, Robkin, Gaska, and Njoki, 2011; Olatunji, Popoola, and Ayandele, 2019).

### **Health Information Literacy on the Skin Bleaching Chemicals**

Using a skin bleaching product will remove the dark skin cover and suppress the production of melanin (Olumide et al., 2008). This will cause the skin to have a lighter complexion due to the suppression and/or destruction of the melanin. Melanin, a type of pigment made in melanocyte cells, determines a person’s skin and hair color complexion and protects the skin from the harmful effects of the sun’s ultra-violet rays. But a de-melanised skin is more vulnerable to damage by the sun. This can result in patchy depigmentation of the skin.

Up to 70% of women using skin bleaching products in Senegal have been diagnosed with at least one dermatological problem, but many people are still largely unaware of the risks associated with bleaching (Kpanake, Sastre, Sorum, and Mullet, 2008). Several of the skin bleaching products contains chemicals like mercury, hydroquinone and corticosteroids (steroid) that are harmful to the users (Mire, 2001). It should be noted that long term use and/or application of these chemical substances can have adverse effects on the skin and users should stop using these products if they notice negative reaction on their body. Chronic use of skin bleaching products is also deadly as long term bleaching of the skin was responsible for the death of an Europe-based middle-aged Nigerian lady (Olumide et al., 2008).

Mercury use was banned from cosmetic products in the developed countries (World Health Organization, 2011) as it is associated with anxiety, depression, psychosis and peripheral neuropathy (McKinley, 2001; World Health Organization, 2011). Exposure may also be linked

with rashes, skin discoloration, scarring, skin infections, and impairment of the renal and nervous system. The mercury compounds in the skin bleaching products put users at risk of kidney failure (World Health Organization, 2011) while pregnant and nursing mothers put their unborn fetuses and babies at major health risks due to the ability of mercury to act as a teratogen and cross the placenta which can cause birth defect, and its affinity to the human brain, which can lead to significant brain damage (Mahé, Ly, Aymard, and Dangou, 2003). It should also be noted that mercury can be transferred from mother to infant through breast milk. This shows women's health information literacy may not only impact her health care outcomes but her children's or unborn child's health as well (Aramide, 2012).

Hydroquinone is a strictly regulated product in the United States, as the Food and Drug Administration, (FDA) limited its concentration to be no more than 2% (Adebajo, 2002). But products sold in most African countries may contain anywhere from 4 to 25% hydroquinone (Adebajo, 2002). Use of hydroquinone may potentially lead to many medical and health concerns such as neurological problems, immunosuppression, Cushing's syndrome, renal damage, and skin abnormalities like vulval warts, striae atrophica and exogenous ochronosis, (Ajose, 2005; Mire, 2001). Exogenous ochronosis is a paradoxical increased pigmentation of the skin (see figure 1).



Figure 1: Exogenous ochronosis

Steroid based skin bleaching products contain corticosteroid which has been implicated in eye problems such as glaucoma and cataracts; endocrinologic complications like hypertension, diabetes mellitus, and suppression of growth in children; and skin problems such as steroid addiction syndrome, pitch black pigmentation (see figure 2), weaken of the skin (see figure 3), and bacterial, viral and fungal infections of the skin (Olumide et al., 2008). Partners and children can acquire fungal infections from the skin of users if they have close skin contact (Mahé, Ly, Aymard, and

Dangou, 2003; Olumide et al., 2008). Withdrawal from the use of corticosteroids based products can lead to deadly shock (McKinley, 2001).



Figure 2: Pitch black pigmentation



Figure 3: Weaken of the skin

The World Health Organization (2011) disclosed that contact with these products and other skin bleaching agents like lead, glucocorticoids, retinoic acid, arbutin, kojic acid and azelaic acid can cause a wide array of opportunistic infections, put users at risk for developing serious health problems, and have deleterious health side effects. The opportunistic infections and skin disorders include allergies, ulcers, premature ageing of skin, skin cancer, leukemia; thin-skinned that would not be able to receive injections and other routine medical procedures including stitching following surgery or accidents; and psychological disorders like depression, anxiety, identity and addictive disorders (McKinley, 2001).

## **Conclusion and Recommendation**

The ability to obtain, understand and use health related information is called health information literacy. The information revealed that skin bleaching is a self-destructive practice that is based on unattainable beauty standards which put the users of skin bleaching product at physical, medical and psychological risk.

The study therefore recommends that medical doctors, dermatologists, beauticians, information professionals, the mass media and all agents of socialization should use health information to promote healthy skin care practices. Health information literacy should also be used to inform people on the need for self-love and self-esteem, with emphasis on the protective functions of melanin especially, for those bleaching their skin and those at the risks of bleaching the skin. Enlightenment should be intensified using the “black is beautiful” message and that beauty is a diverse concept that should not be limited to only Eurocentric standard.

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