

The Skin Bleaching Culture In Nigeria: Prevalence, Motives, Determinants, Products and Adverse Effects

Yetunde Mercy OLUMIDE

Emeritus Professor of Medicine, University of Lagos.

Consultant Physician, Dermatologist and Genitourinary Physician.

Dept. of Medicine, College of Medicine of the University of Lagos,
Idiaraba, Surulere, Lagos, Nigeria.

Email: mercyolumide2004@yahoo.co.uk

Mobile: +234 803 344 6614; +234 808 123 7987

EXTENT OF USE

Skin lighteners are used by large fractions of the population, primarily women and young girls, in Asia, Africa and Latin America. Survey reports these figures for use in specific countries: Senegal, 27 percent; Mali, 25 percent; Togo, 59 percent; South Africa, 35 percent; Nigeria, 77 percent; Hong Kong, 45 percent; Republic of Korea, 28 percent; Malaysia, 41 percent; The Philippines, 50 percent; and Taiwan, 37 percent.¹⁻³ Systematic survey data have not been collected in Latin America, but the products are also widely used there and in the Caribbean. They are also imported illegally and used by women in the United States.

When asked why they used the products, 61 percent of the respondents to the survey of five Asian countries said they felt they looked younger with a fair complexion. Skin lighteners are heavily marketed to women, with the message that they hold a key to beauty. The surveys cited above and others have found that many women use the products for extended periods, up to 20 years in some cases.

PREVALENCE OF SKIN BLEACHING IN NIGERIA

Latest snap poll results released by NOI Polls have revealed that 64% of Nigerians are of the opinion that skin bleaching has become highly prevalent in the country, especially amongst Nigerian females (97%).⁴ This finding supports the claim by the World Health Organization (WHO) that Nigeria has the highest number of women that use skin-lightening products in the world with a prevalence of 77 percent.^{1,2,3} Nigeria has been described as “the world capital of skin bleaching”⁵ and “the skin-lightening hothouse of the world”.⁶

Various researchers in Nigeria revealed *consistently* high prevalence of skin bleaching practices. Adebajo⁷ studied

the prevalence among market traders in Lagos metropolis. She gave an overall prevalence rate of 77.3%; 72.4% among women and 27.6% among the men. Ofondu⁸ studied the prevalence rate among university students in Enugu. She found an overall prevalence rate of 62.4%; 71.9% among the women and 53.3% among the men. Ajose⁹ studied the prevalence rate in a skin clinic at the Lagos State University Teaching Hospital. 92% of the women and 5% of the men claimed to have used the skin bleaching products in the past, but at the time of study 40% of the women and 2% of the men were bleaching the skin. The figures dropped as a result of adverse effects, desertion by spouse, or inability to continue funding the cost of the products. Ofili *et al*¹⁰ studied the prevalence of skin bleaching among University students in Benin. The overall prevalence rate was 64.9%; 70.7% prevalence among women and 52.2% among men.

In the study of the prevalence of the use of skin lightening agents amongst university of Benin Undergraduates in Benin City¹⁰ Nigeria, it is interesting to note that almost everyone denied “**bleaching**” (95.3%), yet 16.3% agreed that they “**tone**”. Only 4.7% correctly said that toning is the same as bleaching. The investigators asked the respondents to **show** the cosmetics being used. There was a great disparity between the presence of bleaching agents in their cosmetics and the denial that they did not bleach (95.3%). This means that if prevalence was collated simply by asking the respondents to answer “yes” or “no”, only 4.7% will be bleachers, whereas the actual percentage of **forensically proven** bleachers was 64.9%. Furthermore, if the word “toning” was used, the actual (true) figure of bleachers would be nearer the figure of forensically proven bleachers. The lesson to be learnt from this study is that statistics on prevalence of bleaching should not be collated simply by asking questions which require negative/positive answers. There is need to **sign** the actual cosmetics used by respondents. Further,

sighting the cosmetics may not solve all the problem because most of the cosmetics carry no ingredient labeling or are deceptively labeled in content (misbranded).⁷ The brand name of the product is no guarantee either because of the rate at which the brand names and packaging are copied by backyard industries. For example, the constituents of “Clear Essence” in the USA may not necessarily be the same as “Clear Essence” in Nigeria.

I believe the above figures may even be an understatement because, from personal experience in the clinic, patients who present with the skin complications of bleaching creams often deny that they are deliberately bleaching due to a guilt complex, because the bleaching habit has been variously denounced, particularly among religious organizations, along immoral connotation. The following scenario is often the pattern in the skin clinic of the Lagos University Teaching Hospital.

Doctor: “Why do you bleach your skin?”

Patient: “I am not bleaching. I use just a normal body cream”

Doctor: “Bring the cream next visit, I just want to see if it is good for you”

At the next visit, on sighting the cream

Doctor: “But see what is clearly written on the cream – “fade cream”, “Complexion cream”. What else can it mean?”

Patient: “I don't know it bleaches.”

Doctor: “Even if you don't know the meaning of “fade” or “complexion” cream, you can see for yourself what it is doing to your skin, that you are getting lighter”

Patient: *(now wearing a guilty smile)* “I don't bleach, I just tone”; I am normally light skin, I just want to be sure I don't get darker in the sun! I am sure the cream I am using is not the cause of my problem, because I have been using it for several years without any adverse effect!”

The denials of bleaching may either be due to ignorance of the functions of the chemicals in the cosmetics or a guilt complex generated by the opprobrium visited on bleachers. The latter is more likely to be the reason. The study by Ofondu⁸ revealed that many women particularly those living in the rural areas, were not even aware that the cosmetic body creams they were using contain bleaching agents. The danger from denial of skin lightening

products is that many of the symptoms and signs of the complications of skin lightening chemicals are **not** specific to the skin lightening chemicals. The unpleasant sequelae of denial often leads to failure in making prompt diagnosis of the adverse health consequences, and delays in appropriating effective medical interventions and management. For example, I know a chronic skin bleacher suffering from intractable and incapacitating vertigo who has not been helped by the ear specialist nor the neurologist. She found it difficult to believe that the skin bleaching product containing mercury/hydroquinone could be the cause of her vertigo.

Furthermore, there are various levels of skin tones 1-7. Most people do not wish to get to the extreme level 7 as Dencia of Whitenicious fame;¹¹ they are content to achieve the mid-levels of 3-5 so as not to make it too glaring that they are bleachers. Therefore, a simple questionnaire designed for Yes/No answers in a field survey is likely to give lower figures from the **true** state of affairs. In clinical practice, we do prescribe benzoyl peroxide for acne; and one of the side effects of benzoyl peroxide is mild bleaching of the skin. Some patients who **genuinely** do not want to bleach find the bleaching effect objectionable and they quickly return for a change in prescription once they observe this undesirable side effect of benzoyl peroxide. Doctors in the skin clinic are so familiar with the characteristic features or stigmata of an artificially bleached or partially bleached skin, at whatever level, hence we know the liars even if they deny the truth. Nigerians and many Africans in Diaspora also bleach.

DEMOGRAPHIC CHARACTERISTICS OF SKIN BLEACHERS IN NIGERIA

Both men and women bleach the skin in Nigeria, it is just that the prevalence is higher among women. Skin bleachers come from all socio-demographic variables and professional group—All age groups, single/married/widowed, all educational levels—from the analphabetic to university professors, teenage secondary school students, students of tertiary institutions; all professions and occupational groups—including janitors, teachers, police officers, market traders, engineers, lawyers, doctors, nurses, pharmacists, and other workers in the health care sector, high court judges, some state governors, even a past head of state, some traditional rulers, politicians and wives of politicians, movie actresses, models, television newscasters and presenters, even men and women of God—pastors, Christians, Muslims and traditional religionists, some domestic staff (e.g cooks, stewards and drivers), some 'high profile' street beggars, and notably, those who work in the sex trade. Most worrisome is the

observation that some mothers have now started to bleach their babies because, as one mother said “black babies are not cute!”

MOTIVES FOR SKIN BLEACHING

Several studies have been done in Nigeria and some other African countries to decipher the motives for skin bleaching. The findings can be grouped under the following headings¹²

- Aesthetic and Beauty
- Social domination
- Attraction and Seduction
- Fashion
- Strengthening the self
- Success
- Compliance
- Pleasure and Sensuality
- Medical reasons

Light skin tone can be transformed into social capital (social networks), symbolic capital (esteem or status) or even economic capital (high-paying job or promotion). Various motives have been given during interviews for lightening the skin; these are: (1) to look more beautiful and attractive, (2) to improve self esteem, (3) to look younger, (3) to appear important, (4) to belong to a higher social class, (4) to be fashionable, (5) to improve better job opportunity, (6) to increase chances of getting married because men consider light complexioned women more beautiful and (7) due to advertisements that promote white ideal (8) to treat some skin diseases.^{4,8,9}

A study was conducted to investigate the perception of female secondary school students on skin bleaching practice in Ibadan metropolis.¹³ These were young girls between the ages of 11-14yrs (85.3%) and above 14yrs old (14.7%). The 3 top reasons for bleaching are related to finding and securing a marriage relationship. The major findings revealed that young girls engaged in skin bleaching as a method of receiving desired attention and relationship from the opposite sex and attract the desired marriage partners. The findings of the above study among school girls was therefore not surprising in a society where some mothers have indoctrinated their daughters to see marriage as the ultimate goal in life for the girl child!

Five reasons Nollywood celebrities give for skin bleaching are:¹⁴

- To look more beautiful/attractive
- To increase their professional relevance
- To attract the right suitors
- The bandwagon syndrome
- Looking good in photos

Susan Maxwell,¹⁵ a heavily bleached Nigerian Nollywood

actress, who makes her own brand of bleaching skin care business has this to say when interviewed

“Black is beautiful, but I have no qualms with enhancing your complexion. 80% of Nigerian men want their women to be fair. They want a lady that draws attention to them. I’ve worked with many married women who complain of their men staring at fair women and they say to me, Susan, make me fair, I want to be attractive to my man!” Some women have said their sons want them to visit their schools because they want to show off their fair mother. Clients all over the world have asked for my products. Black is beautiful but there is nothing wrong with enhancing your complexion”¹⁵

Hence if you want to secure a boyfriend and you don't want the boyfriend snatched from you by other **bleached** girls; if you want to marry and you don't want to lose your husband to **bleached** seductresses always on the prowl, you have to bleach your skin!”

Prostitution is another significant factor which could be responsible for skin bleaching practice. The concept of the body, especially the female body, as a commodity may also be traced to prostitution. Private parts bleaching involves the bleaching of sexually sensitive parts of the body in order to become lighter. The private parts, which may be involved, include the breasts, penis, the vagina, the buttocks and the thighs. The purpose of private parts bleaching could be for sexual attraction of the opposite gender, which is popular among commercial sex workers. Indeed, in the skin clinic, commercial sex workers brand themselves as “fashion designers” to hide the identity of their trade. Midas care Pharmaceuticals in 2012 began selling its clean and Dry intimate wash that promises women a fair look for their vaginas.¹⁶

DETERMINANTS FOR SKIN BLEACHING

Light skin tone can be transformed into social capital (social network), symbolic capital (esteem or status) or even economic capital (high-paying job or promotion).

The cultural ancestry/memes and institutions which though not codified have nonetheless continued to undergird, guide, define and propel otherwise rational people to want to change their physicality by bleaching their skin, in spite of the overwhelming risks to their health.

Women are judged much more heavily on the basis of appearance. Men are more likely to be considered valuable when they have wealth, education and other forms of human capital, while women are considered valuable when they are physically attractive, even if they lack other capital.

Skin-lightening is of utmost importance in attracting most

men. Women bleach so that they are not trapped in spinsterhood because most African men valorize light complexioned women since they find such women beautiful and sexually attractive. Even while married, women need to continue to bleach their skin to sustain the attention of their husbands so that they are not lost to bleached seductresses always on the prowl.

Women associate fair skin tone with elegance, beauty and a higher social status.

The dominant signal from highly visible women (celebrities) is that fair skin is associated with success. The desire to create an identity that is perceived as more socially acceptable drives the bleaching culture. In South Africa, for instance, skin bleaching is one of the psychological scars of colonialism and apartheid—some of which are self-hatred and low self-esteem. These negative psychosomatic influences often push people to alter their physical appearance to feel better about themselves. Agents of socialization such as Eurocentric educational system, media and popular culture have been found to influence people to internalize Eurocentric standards of beauty. The desire to bleach one's skin is similar to the obsession to acquiring Eurocentric beauty ideals such as a thin figure, aquiline nose, long straight hair.

Easy accessibility, availability, affordability and effectiveness of cheap, lowend skin lightening products drive the skin bleaching culture. Corporations have created product lines in a wide range of price categories, such that whiteness is financially accessible for both rural villagers and white-collar urban professionals. With the advent of online marketing, the products can be ordered and delivered, same day, at your door steps just by the click of the mouse!

The various bans on the skin bleaching culture have been ineffective for the following reasons: (a) the bribery culture and corruption in most African countries, notably Nigeria, (b) cross border smuggling, (c) thriving Black market for the products, (d) bootleg versions abound, (e) illegal vendors and desperate marketers, (f) easy accessibility, availability and affordability of cheap products, (g) the role of Websites—skin lightening products can be purchased through the internet, (h) ineffective and outdated regulatory policies, (i) failure to enforce the ban, (j) lack of political will to enforce the ban, (k) the population of skin bleachers has reached a critical mass for the ban to make any meaningful impact as the continued manufacture and sale of the products are demand-driven.

Advances in the technologies of the body, global economics and huge growth in the cosmetic industry drive

the bleaching culture. Polyvalent claims. The concept of multi-tasking/multifunctional beauty products in a world where every minute is rationalized, a simpler life becomes the Holy Grail. In order to appeal to the powerful discourse of “natural beauty” in many societies, most products claim to *restore* the natural beauty of skin (if it is lost), *reveal* the natural beauty of skin (if it is hidden), or *create* a natural beauty (if the consumer never had it to begin with).

There is no equivocation on the fact that the current wave of celebrity 'bleached beauties' in Africa has been a major driver of the bleaching culture. The media creates ideals in the form of celebrities and models, for women to admire. Celebrities, in context of Nigeria culture, are highly visible people in the media. The celebrities in Nigeria are movie stars, models, female television presenters and news casters, female politicians and wives of politicians, musicians, winners of beauty pageants, leading women in the corporate world, some female Christian pastors and wives of pastors. Skin bleaching is highly endemic among these groups of people. The troubling message that the celebrities transmit is that those with fair skin go further. The entertainment industry disproportionately projects and elevates light-skinned women in magazines, films, music and commercials. Celebrity endorsements serve four important purposes: (i) when Celebrities endorse a particular product, the public is more likely to believe in its effectiveness and purchase the product; (ii) when celebrities endorse skin-lightening products they also endorse the act of skin lightening itself, suggesting that their own beauty is attainable and that itself, skin lightening is a mainstream, culturally acceptable act; (iii) celebrity endorsement forms a direct association between whiteness and experiencing success; (iv) the celebrity endorsers have a greater influence in reinforcing hegemonic whiteness due to their popularity. Some of the celebrities proselytize others to bleach because they use their celebrity status to start their own line of “skin care business” which **consistently** involves skin bleaching products. Undue publicity given to some of these bleached celebrities is doing more harm than good to impressionable youths.

The media is also a major driving force of skin bleaching.¹⁷⁻²² The term “media” is an umbrella term that encompasses television, movies, newspapers, magazines, music, and various other forms of commercialized art including digital media e.g facebook, instagram, twitter, blogs etc. The media is a pivotal force through which cultural ideals are spread, articulated and internalized. Media images which glorify lighter skin tone and disseminate images of white beauty drive the skin bleaching culture by portraying “whiteness or lightness”

as a symbol of what is attractive, adorable, desirable, pure, loveable and competent. Women with lighter complexions are regularly used to advertise on the electronic and print media a broad spectrum of consumer products. Women have only to watch television commercials, read print and digital advertisements, or drive past huge billboards to internalize the message that light skin is to be desired. People who lighten their skin and those who associate light skin with positive virtues and dark skin with negative ones aren't stupid. They just don't have the psychological resources to withstand the deluge of images they are presented with every day.

White/light beauty is communicated through mass advertising, television shows, film, internet images, billboards, and celebrity culture. Images of white beauty do not simply rely on white women with blonde hair and light eyes to sell products. Images of white beauty sell much more than beauty ideals of fashions for women around the globe. Taken as a whole, images of white beauty sell an entire lifestyle imbued with racial meaning. The lifestyle that is communicated through these adverts sells whiteness, modernity, sophistication, beauty, power and wealth.

- The media promotes hegemonic whiteness
- The media promotes consumer culture
- The media promotes cultural migration
- The media fosters commodity racism
- The media fosters a feeling of inferiority

Skin bleaching can be a sign of non acceptance of one's cultural background due to the belief that the *only* standard of beauty is those defined by European ideals.

Skin bleaching may be simply a personal choice like tattooing or it may be an indication of more pathological problems such as Body Dysmorphic Disorder.

THE SPECTRUM OF SKIN BLEACHING PRODUCTS

The spectrum of skin bleaching chemicals is no longer restricted to mercury, hydroquinone and corticosteroids. A products pandemic has led to a tsunami of new skin-lightening chemicals which have now flooded the global market, some in the form of injectables and pills. This products pandemic has led to a plathora of cheap, affordable over-the-counter (OTC) products touted to be "the next best thing" for lightening the skin. Even some local individuals have begun manufacturing their own brand of skin creams for the home market creating a new "background industry."

The products used in lightening the skin topically are available as creams, gels, serums and soaps. In African countries, hydroquinone, mercury and topical

corticosteroids are the most common skin lightening agents, while worldwide, hydroquinone, magnesium-L-ascorbic L-2-phosphate (MAP), calcium ascorbate, L-ascorbic acid, mequinol, N-acetyl-4-S-cysteaminylphenol, arbutin, Kojic acid, Kojic acid dipalmitate, Azeleic acid, niacinamide, Bearberry, Kamana Egyptian milk, and natural home made products are the most widely used.²³⁻²⁸

Systemic skin whitening agents are either pills or injections.^{29,30} The pills are glutathione, L-cysteine peptide, Tranexemic acid and other miscellaneous agents. A novel preparation of glutathione, with absorption using the oral mucosal route, has been formulated to facilitate optimum absorption into the bloodstream without the side effects of intravenous administration and it bypasses the gastrointestinal (GIT) tract. Hence a novel preparation of GSH Lozenge has been formulated. Preliminary trials suggest that complications of sublingual and buccal medications are rare but can include inflammation of the mucous membrane including the gums³¹

None of the agents have been approved by the WHO nor FDA for use as a skin lightening agent.

Some of the adverse effects are, internal physical stress, allergic reactions, liver damage and hormonal imbalance. Glutathione injection has caused anaphylaxis, Stevens-Johnson syndrome, Toxic epidermal necrolysis, kidney failure and thyroid dysfunction.

The most commonly used systemic skin whitening agent is Glutathione (GSH) used alone or in various combinations, both as oral and intravenous formulations.

The Side effects of Glutathione injections are hair loss, white spots on the nails, numbness of extremities, shivers and shakes, depression and anxiety. **The Complications of Glutathione Injections** are allergy or anaphylaxis (manifested by difficulty of breathing, tightness of chest, rashes, hives, and swollen skin), systemic **infection**, Stevens-Johnson syndrome, Toxic epidermal necrolysis or Lyell's Syndrome, kidney failure, thyroid dysfunction, and severe abdominal pain.

As already mentioned above, these agents are not FDA approved for skin whitening and no scientific evidence exists for their use. In addition, the injectable formulations are counterfeited and given by untrained people illegally and hence associated with the risk of sepsis, air embolism, transmission of human immunodeficiency virus, Hepatitis B, and use of non-sterile preparations that can lead to serious infections.

A worrying skin-lightening practice has emerged in Kenya and possibly some other African countries including Nigeria. There is a booming black market where

creams that are intended for topical use are used as injectables by the wealthy Nairobi women for quicker action to lighten the skin because Kenyan men like women with whiter skin. The \$70 US treatment is so 'strong', it is said to be capable of turning a user into an 'albino.' The shots contain alpha hydroxy acids and mercury-containing creams.³²

Skin Lightening surgery and other techniques³³⁻³⁹

Laser surgery or cryosurgery is also used to whiten the skin by destroying the melanin cells

Laser surgery is a very expensive procedure.

Other methods for lightening the skin are

- Microdermabrasion
- Chemical peels
- Mesotherapy
- Fraxel laser treatment

The notable adverse effects that may arise from Laser surgery are heat injury, activation and dissemination of cold sores (herpes), scarring, infection and paradoxical darkening of the skin.

HOME MADE CONCOCTIONS FOR SKIN BLEACHING

In Nigeria, a backyard industry for manufacturing skin lightening products has emerged. Various additives are used to “enhance” the bleaching effect of over-the-counter products and possibly, make them affordable.²⁵ Some of the additives for the concoctions are African black soap, lemon or lime juice, sulfur powder, potash, potassium alum, tooth paste, liquid milk, pulverized naphthalene (camphor balls)—a moth proofing agents, Vitamin C tablets, hair relaxers, detergents, shampoo, laundry bleach, battery acid, mercury containing antiseptic soaps, Cam wood, papaya, honey,—indeed the list is endless. All these are made into a paste, in varied and assorted combinations, applied on the skin and left overnight, before being washed off the following morning to prepare for the day's work. Furthermore, it is customary to mix several creams containing steroids, mercury and hydroquinone for use. Indeed some salons now apply corticosteroids creams on the scalp to grow the hair! Cam Wood—Osun, in Yoruba, Majigi in Hausa, Uhie in Igbo is a reddish/orange paste obtained from *Baphia nitida* plant. Cam Wood is also know as African Sandalwood.⁴¹⁻⁴³

The African black soap is made from plantain skin which is dried and then roasted in the clay oven along with cocoa pods (shell of the cocoa fruit). The longer the skin is cooked, the darker it becomes. Essential oils such as Shea Butter and Palm kernel are added to the roasted skin to from soap⁴

THE ADVERSE EFFECTS OF SKIN LIGHTENING CULTURE

The adverse effects of the cosmetic skin lightening culture can be divided into

- (i) Complications related to disruption of the barrier functions of the skin which make the bleacher vulnerable to skin infections, irritant and allergic contact dermatitis.
- (ii) Disruption of the melanin pigment makes one vulnerable to the adverse effects of ultraviolet radiations such as precancerous and cancerous skin diseases.
- (iii) Complications related to the individual skin lightening chemicals, products and methods
- (iv) There are also serious complications related to other heavy metals e.g. lead, cadmium, chromium, copper etc which are possible contaminants in the products manufactured without Good Manufacturing Practices (GMP).
- (v) Serious psychosocial complications also abound largely from the cosmetically disfiguring complications and offensive body odour due to exogenous ochronosis, the stigma related to skin bleaching and the ridicule to which skin bleachers are subjected.
- (vi) In assessing the *cost* of skin lightening and its impact/consequences, one needs to consider the following factors:
 - a) The quantum of physical cash consumed by the practice globally—money that could be put into more important and productive sectors such as empowering women for better quality of life, productivity, and service—particularly in sub-Saharan Africa.
 - b) The economic cost to the skin bleachers.
 - c) The impact of skin lightening on the physical health of the users, public health concerns, and adverse health concerns on pregnant women, the unborn child and babies.
 - d) The time consuming nature of the practice of bleaching
 - e) The cost of treating the adverse health complications: overburdening the health system.

ADVERSE HEALTH EFFECTS OF SKIN LIGHTENING CHEMICALS

The complications of skin lightening products have been comprehensively described by several authors⁴⁴⁻⁶⁵

Depending on the products used, the duration and mode of use, skin lightening produces some harmful effects as

Table 1: Summary of Some Complications of Skin Lightening Practices

Mercury derivatives	Neurotoxic problems such as ataxia, speech and hearing impairment; mental problems such as irritability, fearfulness, and depression; kidney problems such as mercury -induced nephropathy ; and immunotoxicity, Fertility problems and birth d effects; public health issues due to release of measurable levels of mercury vapour toxic to household contacts, Environmental pollution and transformation by bacteria into methymercury which enters the food chain through the process of bioaccumulation and biomagnification in fish and shellfish, leading to brain damage and impaired neurological development of fetuses.
Hydroquinone Preparations	Ochronosis, a blue -black discoloration caused by deposits of ochre -colored pigment, loss of skin elasticity and impaired wound healing and wound dehiscence. Hyperchromia, presence of red cells with abnormally increased cell hemoglobin count. Hypochromia, presence of cells with abnormally low cell hemoglobin content. Neuropathy, disease of the nervous system.
Topical steroid products	Contact eczema, bacterial and fungal infections, adrenal insufficiency, cataract, glaucoma, Cushin g’s syndrome, hypertension, diabetes, lipid disorders, sleep apnea, osteoporosis, myopathy, and disorders of coagulation and fibrinolysis, which are components of cushings syndrome. Acne, skin atrophy and pigmentation disorders.

summarized in Table 1. Since some of these effects do not appear quickly, and some mimic known disease patterns, they are sometimes confused and misdiagnosed even by health care professionals because patients usually deny using any skin lighteners. It is reported that up to 69% of those who practice skin lightening may suffer from at least one complication.

Furthermore, because of the disruption of the natural defenses of the skin against radiation and infections, skin cancers have been reported in patients after prolonged bleaching.

Some other chemicals which are used as exfoliation and penetration enhancers during the “body works” are also very toxic. For example, tretinoin is teratogenic while salicylic acid is fetotoxic.

Both bleachers and toners report the intermittent, time-consuming, laborious, costly, yet addictive nature of the bleaching phenomenon. Their responses indicate that bleaching/toning requires commitment on various levels—financial, time and effort. Furthermore, the problem is complex, since it involves issues strongly burdened with emotion such as one's ethnic and personal identity. The practice has an addictive dimension. Both the health risks and the social and symbolic aspects of the practice must be highlighted in order to impede the practice. The speculative and market factors carried along

in the ensuring marketing and distribution of the products cannot be disregarded.

REFERENCES

1. World Health Organization (WHO). Preventing Disease Through Healthy Environments. *Mercury in skin lightening products*. www.who.int/ipcs/assessment/public_health/mercury_flyer.pdf.
2. UNEP (2008). *Mercury in products and wastes*. Geneva, United Nations Environment Programme, Division of Technology, Industry and Economics, Chemicals Branch (http://www.unep.org/chemicalsandwaste/Portals/9/Mercury/AwarenessPack/English/UNEP_Modl_uk_Web.pdf).
3. ZeroHg mercury working group. Fact SHEET; mercury in Skin Lightening Cosmetics *Mercury Policy Project* www.zeromercury.org. www.zeromercury.org
4. NO1 polls. Predominance of Skin Bleaching Linked to Search for Beauty and Attractiveness. <http://www.no1polls.com/root/index.php?pid=182aparential=14aptid=1>
5. Jide Ojo. Nigeria as the world capital of skin bleaching March 26, 2014. <http://www.punch.com/opinion/Nigeria-as-the-world-capital-of-skin...>

6. Kay Montano. The fairest of them all: Dija Ayodele on the culture of skin-bleaching. *THANDIEKAY* 31 July 2014. <http://thandiekay.com/2014/07/31/the-fairest-of-them-all-dija-ayodele..>
7. Adebayo SB. An epidemiological survey of the use of cosmetic skin lightening cosmetics among traders in Lagos, Nigeria *West Afr J Med.* 2002; Jan-Mar: 21(1): 51-5.
8. Ofondu EO. Cosmetic use of bleaching creams in Enugu. National Postgraduate medical College of Nigeria Dissertation 2003.
9. Ajose OA. Consequences of skin bleaching in Nigeria men and women. *International Journal of Dermatology.* 2005; 44 (Suppl1): 41-3.
10. Ofili AN, Eze EU, and Onunu AN. *Nigerian Medical Practitioner* 2006; 49: 1(2): 24-7.
11. Britni Danielle. Nigerian Singer Releases “Whitenicious” Skin Lightening Cream and its sold out. Jan 20, 2014. <http://www.xojane.com/issues/nigerian-singer-releases-whitenicious>.
12. The “NCUR 2012 Research Survey,” Kpanake, and Expert Interviews. Nina-Belle S. Mbayu. Skin Bleaching in Western and Central Africa: A Critical Analysis Utilizing the Social learning and Colonial Mentality Theories. Proceedings of The National Conferewnce On Undergraduate Research (NCUR) 2012. Weber State University, Ogden, Utah March 29-31. 2012.
13. Durosaro AI, Ajiboye SK, Oniye AO. Perception of Skin Bleaching Among female secondary School Students in Ibadan Metropolis, Nigeria. *Journal of Education and Practice.* 2012; 3(7): 40-46.
14. Five Reasons Nollywood Celebrities bleach their skin/...<http://www.nigerianbulletin.com/threads/5-reasons-nollywood-celebr...>
15. Susan Maxwell. <http://naijahomeandaway.blogspot.com.org.2015/05/i-bleached-because-80-of-nigeria-men.htm/#.VfvSk325XDF>.
16. Intimate whitening. <http://intimatewhitening.com/anal-bleaching/>
17. Sklair L. *Sociology of the Global System.* London: Prentic Hall / Harvester Wheatsheaf. 1995.
18. Kaitlin Sylvia. Hagemonic Whiteness: A Qualitative Study of Fairness Advertisements in India. *Texas State Undergraduate Research Journal.* 2014; 2 (1): 1-5.
19. Charles CAD. Skin bleachers' representation of skin color in Jamaica. *Journal of Black Studies;* 40(2): 153-70
20. Moscovici Serge. Notes towards a description of social Representations. *European Journal of Social Psychology.* 1988; 18(3): 211-50
21. Hunter Margaret. “If you're Light, you're Alright.” Light skin color as social capital for women of color. *Gender & Society* 2002; 16: 175-93.
22. 13. Nicole James. Society's influence on the perception of Beauty. <http://docslide.us/documents/societys-influence-on-the-perception-of-beauty-nicole-james.html>.
23. Policarpio B, Lui H. Skin Lightening and Depigmentation Agents. *eMedicine Specialties>Dermatology>cosmetics* 2009.
24. Komokshi R. Fairness via Formulations: a review of cosmetic skin-lightening ingredients. *J Cosmet Sci* 2012; Jan-Feb; 63(i): 43-54.
25. Olumide YM, Akinkugbe AO, Altraide D, Mohammed T, Ahamefule N, Ayanlowo S, Onyekonwu C, Essen N. *International Journal of Dermatol* 2008; 47: 344-53
26. Sarkar R, Arora P, Garg KV. Cosmeceuticals for hyperpigmentation: What is available? *J Cutan Aesthet Surg* 2013; 6:4-11
27. How to Treat Hyperpigmentation. <http://www.wikihow.com/Treat-Huperpigmentation>.
28. How to Naturally Whiten Skin at Home. <http://www.top10homeremedies.com/how-to/lighten-skin-naturally.html>
29. Villarama CD, Maibach HI. Glutathione as a depigmenting agent: An overview. *Int J Cosmet Sci* 2005; 27:147-53.
30. Malathi M, Thappa DM. Systemic skin whitening/lightening agents: What is the evidence? *Indian J Indian Dermatol Venereol Leprol* 2013; 79:842-6.2.
31. Evangeline B. Handog, Maria Suzanne L Datuin, and Ivan A Singzon. An open-label, single-arm trial of the safety and efficacy of a novel preparation of glutathione as a skin-lightening agent in Filipino women. *Int Journal Dermatol* 2016; 55:153-7
32. Annabel Fenwick Elliott. Kenyan men like women with whiter skin: The rise of wealthy Nairobi women illegally injecting themselves with skin-lightening creams. <http://www.dailymail.co.uk/femail/article-2650766/Kenyan-men-like-women-whiter-skin-The-rise-wealthy-Nairobi-women-illegally-INJECTING-skin-lightening-creams.html>
33. Skin Lightening Surgery—Cost, Before and After, Permanent, Procedure. <http://www.etopical.com/skin-lightening-surgery-cost-before-after-p...>
34. Laser Skin Resurfacing—Cost, Types, Risks, Recovery & Results. <http://www.docshop.com/education/dermatology/facial/skin-resurfacing>
35. skin Lightening South Africa- Check Prices and Compare Reviews. <http://whatclinic.com/beauty->

- salons/south-africa/skin-lightening.
36. Laser surgery skin bleaching complications—Google Search. <https://www.google.com.ng/serach?q=laser+surgery+skin+bleaching...>
 37. <http://www.docshop.com/education/dermatology/facial/microdermabrasion>
 38. Atlanta Blackstar. 15 Black Celebs Caught Whitening their skin <http://www.atlantablackstar.com/2013/08/19/15-black-celebs-caught-white...>
 39. Dr Nair. How do celebrities lighten their skin tone? <http://www.justanswer.com/dermatology/77tvh-celebrities-lighten-skin..>
 40. Mrskincare. Positive effect of Cam Wood (osun) on the skin *Nairaland Forum*. Feb 28, 2013. <http://www.nairaland.com/1210657/positive-effect-cam-wood-osun>.
 41. Brighten Your Skin With Camwood. *The Neni* <http://www.theneni.com/2013/04/brighten-your-skin-with-camwood.html> Wednesday, 17 April 2013.
 42. naturalbeauty. Making a bathing soap with black soap powder & Camwood/Red Sandalwood powder (osun). <http://emergingnaturalbeauty.com/making-a-bathing-soap-with-black-soap-powder-camwoodred-sandalwood-powder-osun-2>
 43. Olumide YM. Editorial: use of skin lightening creams. Lack of recognition and regulations is having serious medical consequences. *British Medical Journal (BMJ)* 2010; 341: c6102 (published 23 November 2010)
 44. Ladizinski B, Mistry N, Kundu RV. Widespread use of toxic skin lightening compounds: medical and psychosocial aspects. *Dermatologic Clinics*, 2011; 29:111-23.
 45. Hardwick N, Van Gelder LW, Van der Merwe CA and Van DerMerwe. Exogenous Ochronosis: An epidemiological study. *British Journal of Dermatology*. 1989; 120: 229-38
 46. Findlay GH, Morrison JGL, Simson IW. Exogenous ochronosis and pigmented colloid millium from hydroquinone bleaching creams. *Brit J Dermatol* 1975; 613-22.
 47. Ruocco V, Florio M. Fish-odor syndrome: an olfactory diagnosis. *Int J Dermatol* 1995; 34:92-3.
 48. Mahe A, Ly F, Perrett JL. Systemic complications of the cosmetic use of skin-bleaching products. *Int J Dermatol* 2005; 44(Suppl 1): 38-8
 49. Weldon MM, Smolinsku, Maroufi A, et al. Mercury poisoning associated with a Mexican beauty cream. *West J Med* 2000; 173:15-8.
 50. Mahe A, Ly F, Aymard G. et al. Skin diseases associated with the cosmetic use of bleaching products in women from Dakar, Senegal. *Br J Dermatol*. 2003; 148: 493–50
 51. Ly F. Skin diseases associated with the use of skin-bleaching products in Africa. *Ann Dermatol Venereol*. 2006; 133: 899–906 ([in French])
 52. Nnoruka E and Okoye O. Topical steroid abuse: its use as a depigmenting agent. *J Natl Med Assoc*. 2006; 98: 934–939
 53. Ly F, Soko AS, Dione DA. et al. Aesthetic problems associated with the cosmetic use of bleaching products. *Int J Dermatol*. 2007; 46: 15–17
 54. Staughton RC and August PJ. Cushing's syndrome and pituitary-adrenal suppression due to clobetasol propionate. *Br Med J*. 1975; 2: 419–421
 55. May P, Stein EJ, Ryter RJ. et al. Cushing syndrome from percutaneous absorption of triamcinolone cream. *Arch Intern Med*. 1976; 136: 612–613
 56. Bwomda P, Sermijn E, Lacor P. et al. Glucocorticoid hypertension due to the use of bleaching skin cream, a case report. *Acta Clin Belg*. 2005; 60: 146–149
 57. Levin, C. and Maibach, H.I. Topical corticosteroid-induced adrenocortical insufficiency: clinical implications. *Am J Clin Dermatol*. 2002; 3: 141–147
 58. Tobin AM., Barragry J, Kirby B. et al. Adrenal suppression following topical use of clobetasol propionate illegally supplied as a bleaching agent. *Ir Med J*. 2005; 98: 118
 59. Gilbertson EO, Spellman MC, Piacquadio DJ. et al. Super potent topical corticosteroid use associated with adrenal suppression: clinical considerations. *J Am Acad Dermatol*. 1998; 38: 318–321
 60. Perret JL, Sane M., Gning S. et al. Hypothalamo-hypophyseal-adrenal hypofunction caused by the use of bleaching cosmetics in Senegal. *Bull Soc Pathol Exot*. 2001; 94: 249–252 ([in French])
 61. Hogan DJ, Sibley JT, and Lane PR. Avascular necrosis of the hips following longterm use of clobetasol propionate. *J Am Acad Dermatol*. 1986; 14: 515–517
 62. Addo H. Squamous cell carcinoma associated with prolonged bleaching. *Ghana Med J*. 2000; 34: 3
 63. Ly F, Kane A, Deme A. et al. First cases of squamous cell carcinoma associated with cosmetic use of bleaching compounds. *Ann Dermatol Venereol*. 2010; 137: 128–131 ([in French])
 64. da Souza MM. the concept of skin bleaching in Africa and its devastating health implications. *Clin Dermatol* 2008; 26(1)27-9
 65. Skin lightening a global trend and billion-dollar business. *theGrio*. November 18,2009. <http://thegrio.com/2009/11/18/skin-lightening-a-global-trend-and-billion-dollar-business/>