CHANGING TOXIC BEAUTY CULTURE AND THE CLIMATE CRISIS IN NIGERIA

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Abstract

This paper explores the intricate connections between evolving beauty standards, the pervasive "toxic beauty culture" that disproportionately impacts people of colour and its influence on deteriorating environmental conditions. The continuous shift in beauty ideals and the societal emphasis on achieving a "pleasing" appearance significantly influence how men and women make beauty choices. The relentless pursuit of these ideals often predisposes people to harmful procedures that endanger human health and the environment. The study aims to examine these beauty ideals and toxic beauty trends, analysing their impacts on POC and the subsequent consequences for environmental conditions. 400 respondents were purposively selected from Rivers, Bayelsa, Akwa Ibom and Delta State. Descriptive survey design was used to demonstrate the implication of toxic beauty trends. The environmental injustice perspective and anthropogenic climate change frameworks were adopted to explain the intersectional systems of oppression, racialised beauty practices and the consequences of toxic beauty culture on health and the environment. The paper argues that hazardous ingredients banned in developed nations have remained vital components of beauty products exported to developing nations, including Nigeria. The study concludes by recommending the adoption of sustainability principles within beauty practices and the beauty industry to promote human health and an eco-friendly environment.

Keywords: *Toxic Beauty Culture; Environmental Injustice; Racialised Beauty Practices; Anthropogenic Climate Change; Human Behaviour.*

INTRODUCTION

The constantly evolving culture of unattainable perfection (trend-chasing) and the urge to conform to ideals and fit into societal construction of beauty have become toxic. Heather Widdows (2018) noted that there is a convergence of beauty ideals giving rise to a globalized dominant and demanding beauty ideal. Cosmetics, beauty products and procedures play a ubiquitous role in contemporary society, shaping perceptions of beauty, identity, and self-expression. From skincare routines to makeup application, the beauty industry encompasses a diverse array of products and procedures designed to enhance and transform one's appearance.

Daily habits of using personal care products and cosmetics expose people of colour (POC) to diverse chemicals. Unregulated toxic chemicals in personal care products are a global problem. Edwards, Ahmed, Martinez, Huda, Shamasunder, McDonald, Dubrow, Morton, & Zota, (2023) link the high level of beauty-product related chemicals for POC to entrenched social and economic systems like colonialism and slavery that favour Eurocentric beauty standards.

In today's globalized society, the concept of beauty has become deeply intertwined with cultural norms, media representations, and commercial interests. While beauty culture can serve as a source of empowerment and self-expression, it also harbours toxic elements that perpetuate harmful beauty standards and practices.

The pervasive influence of societal pressures and

ideals surrounding appearance negatively impact people and the environment. From a young age, individuals are bombarded with images of "ideal" beauty propagated by mass media, advertising, and popular culture. These unrealistic standards often prioritize certain physical traits, such as fair skin, slim bodies, thick lips and symmetrical features, while marginalizing diverse expressions of beauty. As a result, individuals may internalize these standards, leading to feelings of inadequacy, low self-esteem, and the pursuit of unattainable perfection through cosmetic interventions. Beauty ideals or standards refer to a set of cultural norms that dictate what is considered aesthetically pleasing across cultures and periods and may intersect with such social identities as race, ethnicity, gender or class (Kaur, Asif, Aur, Kumar, & Wani; 2023). Cultural norms and traditions play a significant role in shaping beauty ideals and practices within different communities. For example, in many societies, lighter skin is associated with wealth, status, and beauty, leading to the widespread use of skin-lightening products and the perpetuation of colourist attitudes. Similarly, gender norms and expectations dictate acceptable standards of beauty for men and women, reinforcing stereotypes and inequalities based on appearance.

The beauty industry, a multi-billion-dollar global enterprise, thrives on the perpetuation of toxic beauty culture through targeted marketing tactics and product offerings. Advertising campaigns often exploit insecurities and vulnerabilities, promising consumers transformative results through the use of beauty products and cosmetic procedures. Whether promoting anti-aging creams, weight loss supplements, or hair straightening treatments, advertisers capitalize on societal beauty standards to drive sales and profits.

Since the early 2000s, the rise of social media and influencer culture intensified the commodification of beauty, with influencers promoting products and lifestyle ideals that align with dominant beauty norms. The constant exposure to curated images of beauty on social media platforms can create unrealistic expectations and foster feelings of comparison and inadequacy among users, contributing to the perpetuation of toxic beauty culture.

At the individual level, psychological factors play a significant role in perpetuating toxic beauty culture and its associated behaviours. Body image dissatisfaction, fuelled by internalized beauty standards and societal pressures, can lead individuals to engage in harmful practices such as extreme dieting, cosmetic surgery and procedures, and excessive exercise in pursuit of an idealized appearance. Moreover, the prevalence of body dysmorphia and eating disorders underscores the detrimental impact of toxic beauty culture on mental health and well-being. In addition, interpersonal relationships and social networks can influence perceptions of beauty and body image. Peer pressure, family expectations, and cultural norms may reinforce certain beauty ideals and discourage deviation from societal standards, further perpetuating toxic beauty culture within communities.

Beauty, a concept as diverse and subjective as humanity itself, has long been a cornerstone of Nigerian culture. From traditional rituals celebrating natural aesthetics to modern-day beauty standards shaped by global influences, Nigeria's beauty landscape has undergone a profound evolution (Ubelejit-Nte, 2023). However, amidst this transformation lies a complex and often overlooked reality: the intersection of Nigeria's changing beauty culture and the escalating climate crisis. Historically, Nigeria's beauty standards have been deeply rooted in cultural traditions, societal norms, and colonial legacies. The perception of beauty has been shaped by factors such as skin tone, facial features, body shape, and hair texture, reflecting a blend of indigenous ideals and external influences. Yet, alongside the celebration of diverse beauty, Nigeria has grappled with the pervasive impact of colourism, Eurocentric beauty ideals, and the commodification of aesthetics.

In recent decades, Nigeria's beauty landscape has witnessed a seismic shift fuelled by globalization, urbanization, and the proliferation of digital media. For instance, in southwestern Nigeria, the Yoruba people have long valued a voluptuous figure, seeing it as a sign of health, prosperity, and fertility. This ideal, encapsulated in the term "lewa", continues to hold cultural currency. However, the influx of global media, particularly American and European television and social networking platforms, has introduced the countervailing ideal of a thin, slender body. As a result, many Yoruba women now navigate a paradoxical aesthetic: they seek to maintain the traditional curvy figure while also aspiring to the flat abdomen and toned limbs associated with global beauty norms. This has led to the popularity of practices like waist training

and cosmetic procedures that aim to achieve both ideals simultaneously (Eze & Akpan, 2019). The use of skin-lightening products, a phenomenon with historical roots, has been exacerbated by global advertising that often associates lighter skin with success and beauty. Similarly in southeastern Nigeria, the Igbo traditionally celebrated a natural, unadorned beauty. The focus was on a healthy, well-fed appearance, often symbolized by a glowing complexion and a full figure. But then again globalization has significantly influenced this beauty landscape by introducing a strong consumerist ethos (Okafor, 2021). In northern Nigeria also, the Hausa and Fulani cultures maintained a more resilient connection to their traditional beauty standards, which are deeply intertwined with religious and social customs. Beauty here is often expressed through modesty, grace, and intricate traditional adornments like henna (lalle). However, like in other cases, the advent of social networking platforms, beauty blogs, and influencer culture has democratized beauty, providing a platform for diverse voices and challenging conventional norms. Consequently, beauty standards have become more fluid, inclusive, and reflective of Nigeria's rich cultural heritage. However, beneath the surface of this changing beauty landscape lies a darker reality: the toxic underbelly of the changing beauty culture. Despite strides towards inclusivity, colourism continues to permeate societal attitudes, perpetuating harmful stereotypes and disparities based on skin tone. Moreover, the prevalence of skin-lightening products, often laden with hazardous chemicals, underscores the enduring influence of Eurocentric beauty ideals and the normalization of harmful practices on people of colour (Edwards, et al, 2023). The association of Nigeria's beauty culture with the anthropogenic climate change further complicates this narrative. As the world grapples with the devastating impacts of climate change, the beauty industry's contribution to environmental degradation cannot be ignored. From the extraction of natural resources for cosmetics production to the disposal of plastic packaging, the beauty industry life cycle assessment shows a significant ecological footprint, exacerbating Nigeria's vulnerability to climate-related risks. The climate crisis disproportionately affects communities already marginalized by societal inequities, widening existing disparities in access to clean water, sanitation, and healthcare. Furthermore, the relentless commodification of beauty through unsustainable consumption and single-use products fuels a self-perpetuating cycle of environmental degradation, positioning toxic beauty culture as a direct contributor to the climate crisis and a critical issue of social and environmental justice. Against this backdrop, the study examines the changing but toxic beauty culture and their impact on (POC) in the context of the climate crisis.

LITERATURE REVIEW

While the literature on toxic beauty culture and the climate crisis has traditionally been examined as separate phenomena, recent research has begun to explore the interconnected dynamics between these two issues. Policy frameworks have emerged to elucidate the pathways through which toxic beauty culture contributes to environmental degradation and exacerbates the impacts of climate change on human health and well-being. The Minamata convention on mercury is the most recent global agreement on environment and health adopted in 2013 (UNEP), banned personal care products containing more than 1mg/1kg of mercury. For over three decades, environmental justice movement had made concerted efforts to address the issue of unregulated chemicals in consumer products and their implication to people of colour (Sze and London, 2008; Cole & Foster, 2001). Empirical studies have documented the environmental footprint of the beauty industry, highlighting its contribution to greenhouse gas emissions, air and water pollution, and resource depletion. The production, packaging, and distribution of cosmetics and beauty products rely heavily on fossil fuels, energy-intensive processes, and non-renewable resources, leading to significant environmental impacts across the product lifecycle. The disposal of cosmetic waste, including packaging materials and single-use plastics, further exacerbates environmental degradation, contributing to marine pollution, landfill waste, and ecosystem disruption. The release of microplastics from beauty products poses additional risks to aquatic ecosystems and wildlife, highlighting the interconnected nature of toxic beauty culture and worsening climatic conditions.

The connection between toxic beauty culture and the climate crisis represents a complex and multifaceted issue with profound implications for human health, environmental sustainability, and social justice. Toxic beauty culture refers

to the pervasive influence of beauty standards, practices, and products that prioritize unrealistic ideals of beauty at the expense of human health and environmental sustainability. A plethora of studies have documented the drivers and impacts of toxic beauty culture on individuals, societies, and ecosystems.

The impacts of toxic beauty culture are manifold, ranging from adverse health effects associated with chemical exposure to environmental pollution and ecosystem degradation. There is a link between hair dye and breast cancer (International Journal of Cancer, 2019), while direct or indirect exposure to mercury from the use of skin lightening products is a risk factor for diabetes (Beautywell Project, 2023). Research has documented the presence of potentially harmful ingredients, such as, formaldehyde, phthalates, parabens, lead, mercury, triclosan, and benzophenone, in cosmetics and beauty products, linking them to various health issues (Chow and Mahalingaiah; Dodson, Nishioka, Standley, Perovich, Brody, & Rudel, 2012; Pierce, Abelmann, & Spicer, et al, 2011), like cancer including allergies, hormonal disruptions, and reproductive disorders. Extant literature provides a connection between harmful chemical ingredients of cosmetic and hygiene products sold to people of colour and adverse health conditions (Helm, Nishioka, Brody, Rudel and Dodson, 2018; Lianos, Rabkin, Bandera et al, 2017; Rao, McDonald, Barret et al, 2021; McDonald, Lianos, Morton & Zota, 2021). Moreover, the production, packaging, and disposal of beauty products contribute to environmental pollution, resource depletion, and waste generation, exacerbating the climate crisis and environmental degradation.

The climate crisis represents a global challenge characterized by rising temperatures, changing precipitation patterns, and extreme weather events, driven primarily by human activities such as the burning of fossil fuels, deforestation, and industrial processes. While the nexus between the climate crisis and sectors such as energy, transportation, and agriculture are well-documented, the intersection with toxic beauty culture has received less attention in the literature.

Recent studies (Alnuqaydan, 2024; Nguyen, Nguyen, & Vuong, 2024; Okafor, 2021), have explored the connections between toxic beauty culture and the climate crisis, highlighting the environmental footprint of the beauty industry and its contribution to greenhouse gas emissions, air pollution, and resource depletion. Research has shown that the production and distribution of cosmetics and beauty products rely heavily on fossil fuels, energy-intensive processes, and non-renewable resources, leading to significant carbon emissions and ecological impacts (Nguyen, Nguyen, & Vuong, 2024; Okafor, 2021).

The disposal of cosmetic waste, including packaging materials, single-use plastics, and non-biodegradable containers, further exacerbates environmental degradation, contributing to marine pollution, landfill waste, and ecosystem disruption. The release of microplastics from beauty products such as exfoliating scrubs and glitter poses additional risks to aquatic ecosystems and wildlife, further underscoring the interconnected nature of toxic beauty culture and the climate crisis.

THEORETICAL FRAMEWORK

The conceptual framework of environmental injustice of beauty is a derivative of the environmental justice approach that incorporates beauty perspectives into existing environmental justice theoretical and methodological frameworks. This approach explains a systemic and institutionalized discrimination against people of colour through exposure to banned harmful chemicals that are constituent ingredients of cosmetic and hygiene products sold to POC in order to maintain Eurocentric beauty norms. It links intersectional systems of oppression such as race, age, gender and status to racialized beauty practices, unequal chemical exposures, and adverse health outcomes (Zota & Shamasunder, 2017). The intersection of toxic beauty culture and the climate crisis embody a profound environmental injustice rooted in systemic disparities in access, impact, and accountability.

The environmental injustice of beauty framework unveils the intricate dynamics exacerbating ecological harm and social inequities within this context. Toxic beauty culture perpetuates a cycle of environmental degradation through resource extraction, production, consumption, and disposal. From petroleum-based ingredients in cosmetics to the excessive packaging and single-use plastics, the beauty industry contributes significantly to greenhouse gas emissions, deforestation, water pollution, and waste accumulation. This environmental burden, however, is not distributed evenly. Communities already marginalized by race, class, and geography bear the brunt of this toxicity. They

often live in close proximity to extraction sites, manufacturing facilities, and waste disposal sites, exposing them to heightened levels of pollution and health risks. Moreover, the marketing of beauty standards predominantly caters to Eurocentric ideals, further marginalizing individuals with diverse ethnicities and features, perpetuating social hierarchies and reinforcing environmental injustices. In the context of the climate crisis, these disparities are exacerbated. Climate change disproportionately affects frontline communities, amplifying existing vulnerabilities and injustices. Extreme weather events, rising temperatures, and shifting ecosystems exacerbate health disparities and socioeconomic inequalities, compounding the impacts of toxic beauty culture on marginalized populations.

The global nature of the beauty industry exacerbates environmental injustice on a transnational scale. The extraction of raw materials often occurs in the Global South, where regulations are lax, and communities lack resources to defend their rights. These materials are then shipped to manufacturing hubs, predominantly in the Global North, where they are processed into beauty products marketed worldwide. This global supply chain further entrenches power imbalances, perpetuating environmental degradation and exploitation along racial and economic lines.

The theory of anthropogenic climate change posits that human activities, particularly the burning of fossil fuels and deforestation, have significantly altered the Earth's climate system, leading to global warming, changes in precipitation patterns, and extreme weather events. In the context of toxic beauty culture, the excessive use of cosmetics and beauty products containing harmful chemicals contributes to environmental pollution, resource depletion, and adverse health effects on individuals. Toxic beauty culture poses significant risks to human health, as many cosmetics and beauty products contain a myriad of chemicals like aerosolized particles from hairsprays, perfumes, and nail polishes that can be harmful upon prolonged exposure. Ingredients such as talcum, Trichlorocarbanide (TCC), EDTA, parabens, phthalates, formaldehyde, and heavy metals have been linked to various health issues, including allergies, hormonal disruptions, reproductive disorders, and even cancer. Additionally, the use of skin-lightening products containing hydroquinone, corticosteroids and mercury (Agorku, Kwansah-Ansah, Voegborlo, Amegbletor, & Opoku, 2016; Ladizinski, Mistry, & Kundu, 2011) can lead to skin damage, discoloration, and systemic toxicity. Racial discrimination based on European beauty norms can lead to internalized racism, body shame, and skin tone dissatisfaction, factors that can influence product use to achieve straighter hair or lighter skin.

METHODOLOGY

This research adopted a descriptive survey method to meticulously examine the intricate connections between changing toxic beauty culture and its implications for the climate crisis within Nigeria. The choice of a descriptive survey was driven by its efficacy in gathering detailed information on perceptions, attitudes, and reported behaviours concerning beauty practices and environmental awareness among the target population. Data collection was primarily facilitated through an online Google Form questionnaire. This digital approach was chosen for several reasons pertinent to the Nigerian context. It offered widespread accessibility, enabling the researchers to reach a diverse demographic of individuals across different states within Nigeria, overcoming potential logistical and cost barriers associated with traditional paper-based surveys. Furthermore, Google Forms ensured anonymity and confidentiality, creating an environment where respondents could provide candid answers without fear of identification, thereby enhancing data validity.

The questionnaire comprised a consent form and fifteen carefully structured thematic questions, each aligned with the study's objectives. Ten (10) of these questions were close-ended, primarily employing multiple-choice, Likert scale, or rating scale formats. These questions aimed to quantify specific variables such as the frequency of engagement in certain beauty practices, the types of beauty products regularly used, awareness levels regarding product ingredients, perceived health effects, and the level of concern about the environmental impact of these products. This quantitative data allowed for the identification of patterns, trends, and statistical relationships within the dataset. In contrast, five (5) open-ended questions were included to solicit richer and in-depth qualitative insights. These questions encouraged respondents to elaborate on their personal experiences, motivations behind their beauty choices, challenges faced in adopting more

sustainable practices, and their perspectives on the broader societal pressures related to beauty ideals. The questionnaire was specifically distributed among individuals identified as "people of colour" residing within Nigeria, predominantly focusing on the experiences of Black Nigerian women and men, who are disproportionately affected by the pervasive nature of toxic beauty culture and its attendant environmental consequences. The survey included 400 respondents from four purposively selected states in Nigeria, namely: Rivers, Bayelsa, Akwa Ibom, and Delta State. These states were chosen because they are situated in the Niger Delta region, a space marked by intense socio-economic and environmental complexities. The region is characterised by heavy oil exploration, which has long contributed to ecological degradation and public health concerns, thus making questions about environmental harm particularly salient. At the same time, urban centres such as Port Harcourt, Yenagoa, Uyo, and Warri have become hotspots of consumer culture where globalised ideals of beauty, skin-lightening practices, and cosmetic industries thrive. These conditions create a convergence of issues: a visible struggle with toxic beauty standards, racialised aesthetics, and their connection to both individual health risks and wider ecological damage. Selecting these states therefore allows the study to explore the subject within contexts where environmental decline and beauty consumption practices overlap most sharply. Respondents were reached mainly on social networking sites, online community platforms, and through targeted digital groups that are widely used by young people in particular, as these demographics are often the most active participants in conversations around beauty practices.

The overarching aim of this study, to examine the impact of toxic beauty ideals on people of colour and the resultant worsening climate condition in Nigeria, was directly supported by this methodological design. By gathering both measurable data on behaviours and subjective insights into perceptions, the survey method allowed for a comprehensive understanding of how racialized beauty practices contribute to environmental injustice and anthropogenic climate change within the specific Nigerian context. The subsequent analysis of these data sets, employing both descriptive statistics and thematic analysis, provided the empirical foundation for the study's arguments and recommendations.

RESULTS

This section presents the findings from the descriptive survey of 400 respondents across Rivers, Bayelsa, Akwa Ibom, and Delta States in Nigeria. It integrates both quantitative data, obtained from the closed questions, and qualitative insights, gleaned from the open-ended questions. This dual approach provides a comprehensive understanding of the complex relationship between toxic beauty culture, its effects on Nigerians, and its broader contributions to the climate crisis.

SOCIODEMOGRAPHIC DISTRIBUTION OF RESPONDENTS

To provide a comprehensive overview of the survey participants, a detailed sociodemographic distribution is presented below. This information is crucial for contextualizing the study's findings on toxic beauty culture and its environmental implications within Nigeria.

The demographic data as shown in Table 1 reveal a sample composition that is largely aligned with the characteristics of the target population for this study. The higher proportion of female respondents (70%) directly reflects the study's focus on beauty practices, which are often more overtly marketed to and engaged in by women in the Nigerian context. This distribution is vital for understanding the disproportionate impact of toxic beauty culture on women.

The age distribution highlights that the majority of participants fall within the 18-47 age range (90%), with the largest segment in the 18-27 years category. This is significant as these age groups represent the primary consumers of beauty products and are highly susceptible to evolving beauty standards propagated through social media and popular culture. Their experiences offer critical insights into contemporary beauty trends and their associated impacts. The occupational breakdown indicates a diverse economic background among respondents, with a notable presence of students (25%) and self-employed individuals (30%). This diversity suggests varying levels of disposable income and exposure to beauty product marketing, providing a broad perspective on consumption patterns. The mix of private and public sector employees further enriches the dataset, reflecting different professional environments that might influence beauty choices. In terms of religious affiliation, the sample largely mirrors Nigeria's predominant religious landscape in the Southern region, with Christianity (75%)

Characteristic	*Category*	*Frequency (n)*	*Per (%)*
Gender	Women	280	70.0
	Men	120	30.0
Age Group	18-27 years	160	40.0
	28-37 years	120	30.0
	38-47 years	80	20.0
	48-57 years	30	7.5
	58 years and above	10	2.5
Occupation	Student	100	25.0
	Unemployed	60	15.0
	Self-Employed	120	30.0
	Private Sector	80	20.0
	Public Sector	40	10.0
Religion	Christianity	300	75.0
	Islam	80	20.0
	African Traditional Religion (ATR)	10	2.5
	Others (e.g. Atheist)	10	2.5
Level of Education	First School Leaving Certificate	20	5.0
	Senior Secondary School Certificate	80	20.0
	Tertiary (OND/HND/B.Sc.)	200	50.0
	Post Graduate (M.Sc./Ph.D.)	80	20.0
	Others	20	5.0
State of Residence	Akwa Ibom	100	25.0
	Bayelsa	100	25.0
	Delta	100	25.0
	Rivers	100	25.0

Source: Field Survey, 2025.

Table 1

and Islam (20%) accounting for the vast majority of respondents. While direct links between religion and beauty practices were not the primary focus, this distribution ensures that the findings are representative of the broader Nigerian society. The educational attainment shows a strong representation of individuals with tertiary education (50%) and postgraduate qualifications (20%), indicating a relatively educated sample. This level of education suggests a greater potential for awareness and critical thinking regarding health and environmental issues, making their reported perceptions particularly valuable for the study's objectives. Finally, the equal distribution across the four purposively selected states (Akwa Ibom, Bayelsa, Delta, Rivers) was a deliberate methodological choice. These states, representing diverse regions and socio-economic contexts within Nigeria, ensure that the findings capture regional variations in beauty culture and environmental concerns, thus enhancing the generalizability of the study's conclusions within the targeted areas. This comprehensive demographic profile provides a robust foundation for interpreting the subsequent findings on toxic beauty practices and their environmental implications.

ANALYSIS OF RESEARCH OBJECTIVES

The study's primary objective was to examine the impact of toxic beauty ideals on people of colour (specifically Nigerians) and the attendant worsening climate condition in Nigeria. The findings are discussed below, structured around key themes derived from the survey data.

PREVALENCE AND TYPES OF TOXIC BEAUTY PRACTICE

Quantitative data unequivocally highlight a

significant engagement in beauty practices widely associated with toxic beauty culture among the surveyed Nigerian population. A staggering 65% (260) of all respondents admitted to having used skin lightening or bleaching products at some point in their lives (see Table 2). More critically, 30% (120) reported current regular use (at least once a week). When disaggregated by gender, this trend was more pronounced among women, with 70% (196 out of 280 female respondents) reporting past or current use, compared to 50% (60 out of 120 male respondents) among men. This indicates a deeply entrenched societal preference for lighter skin tones across genders, though women remain the primary consumers.

Similarly, the prevalence of hair chemical treatments was high. 78% (218 out of 280) of female respondents confirmed using chemical relaxers or other strong chemical treatments for hair straightening or texturizing within the last six months. This widespread use points to the pervasive influence of beauty standards that favour straightened or altered

Beauty Practice/Aspect	***Category / Detail***	***Frequency (n)***	***Per (%)***
Skin Lightening/Bleaching Product Usage	Used at some point in life (Overall)	260	65.0%
	Current regular use (at least once a week)	120	30.0%
	Women (Past/Current use)	196 (out of 280 females)	70.0% (of women)
	Men (Past/Current use)	60 (out of 120 male respondents)	50.0% (of men)
Hair Chemical Treatments (Female Respondents)	Used chemical relaxers/treatments in last 6 months	218 (out of 280 females)	78.0% (of women)
Product Sourcing	Purchased from informal markets/online vendors	220	55.0%

Source: Field Survey, 2025

Table 2

hair textures, often at the expense of natural hair and exposure to harsh chemicals.

Furthermore, product sourcing patterns revealed a significant vulnerability. Approximately 55% (220) of respondents indicated purchasing beauty products from informal markets (e.g., street vendors, local shops without formal licenses) or online vendors. This practice is concerning as these channels often lack stringent regulatory oversight, increasing the likelihood of exposure to banned or harmful ingredients in products, directly impacting consumer health and contributing to unregulated waste streams.

PERCEIVED HEALTH EFFECTS OF TOXIC BEAUTY PRACTICES

The direct impact on human health was evident from respondents' reported experiences. Among those who engaged in skin lightening, 40% (104 out of 260 users) reported experiencing various adverse skin reactions, including rashes, thinning skin, hyperpigmentation (often leading to a darker, uneven complexion in the long run), or persistent irritation. For users of chemical hair treatments, 35% (76 out of 218 users) reported issues such as scalp burns, severe hair breakage, or significant hair loss, directly attributing these problems to the products used.

Beyond immediate skin and hair reactions, qualitative responses revealed a profound underlying anxiety about long-term systemic health risks. Respondents frequently voiced concerns about the potential for organ damage (e.g., kidney and liver damage) and various types of cancer, associating these fears with prolonged exposure to undisclosed hazardous chemicals in beauty products. While

Health Effect Category	***Specific Issues Reported***	***Affected Group***	***Per (%) of Affected Group***	***Freq (n) of Affected Group***
Adverse Skin Reactions	Rashes, thinning skin, hyperpigmentation, persistent irritation	Users of skin lightening/bleaching products (n=260)	40%	104
Hair & Scalp Issues	Scalp burns, severe hair breakage, significant hair loss	Users of chemical hair treatments (n=218)	35%	76
Long-Term Systemic Concerns	Organ damage (kidney, liver), various cancers	All respondents (based on qualitative data, not quantified percentage of total)	Not quantified	Not quantified

Source: Field Survey, 2025

Table 3

these were based on personal belief and anecdotal observation rather than medical diagnoses, they underscore a deep-seated public mistrust and fear regarding product safety. A respondent from Bayelsa poignantly shared, "[m]y aunt used a popular lightening cream for years, and now she battles kidney problems. It makes me genuinely scared about what these chemicals are doing to our insides". This highlights the human cost of unregulated beauty practices, aligning with the concept of environmental injustice of beauty, where marginalized populations bear a disproportionate burden of health risks due to exposure to harmful substances.

AWARENESS OF ENVIRONMENTAL IMPACT AND CONTRIBUTION TO CLIMATE CRISIS

The study found a notable gap in respondents' explicit awareness of the direct environmental ramifications of beauty products, particularly regarding chemical pollutants. Only 25% (100) of all respondents demonstrated a clear understanding of how the production, use, and disposal of beauty products contribute to broader environmental degradation (e.g., microplastic pollution, chemical runoff into water bodies, and carbon emissions from manufacturing and transportation). However, a more generalized concern about packaging waste was evident. A significant 70% (280) of respondents expressed worry about the sheer volume of plastic packaging generated by beauty products. This indicates a visual awareness of solid waste pollution, even if the more insidious chemical impacts were less understood. A minority, 15% (60), specifically articulated concerns about chemical runoff from beauty products contaminating water sources, particularly Nigeria's rivers and boreholes, suggesting a nascent understanding among some individuals of the broader ecosystem impact.

The findings suggest that while direct knowledge of

the beauty industry's contribution to anthropogenic climate change via fossil fuel-derived ingredients and industrial pollution is limited, there's a growing discomfort with visible environmental pollution like plastic waste. This highlights a critical area for public education and awareness campaigns to bridge the gap between individual beauty choices and their collective environmental footprint. The sheer scale of product consumption, especially those with toxic ingredients and non-biodegradable packaging, contributes significantly to waste accumulation, chemical leaching into soil and water, and increased carbon emissions throughout the product lifecycle—from extraction of raw materials (often petroleum-based) to manufacturing, transportation, and disposal.

UNDERLYING MOTIVATIONS AND ATTITUDES TOWARDS SUSTAINABLE BEAUTY

Qualitative data provided critical insights into the complex motivations driving engagement in toxic beauty practices. The most dominant theme was the overwhelming societal pressure and the pervasive influence of media (including social media platforms and the Nigerian film industry, Nollywood). Respondents frequently articulated that lighter skin tones and specific hair textures are heavily promoted as ideals of beauty, success, and even social mobility. Many confessed to feeling inadequate or less desirable if they did not conform to this prevailing aesthetics. A respondent from Rivers State lamented, "[l]ighter skin is constantly paraded as more beautiful, more successful. It's what we see everywhere, in films, on billboards, even among our friends". This illustrates the powerful socio-cultural forces shaping beauty standards and driving the demand for products that promise conformity.

Some respondents explicitly linked their beauty choices to perceived better social, economic, or relationship opportunities, believing that conforming to these ideals would grant them advantages in various aspects of life. Conversely, a recurring sentiment was the lack of accessible, affordable, and effective "natural" or "safer" alternatives to conventional beauty products. Many also expressed a severe lack of comprehensive and reliable information regarding the harmful ingredients present in common products, leading to uninformed choices.

Despite these challenges, there was an encouraging openness to more sustainable alternatives. Approximately 50% (200) of respondents indicated a willingness to transition to more eco-friendly and natural beauty products, provided they were readily available, affordable, and demonstrably effective. Critically, there was a strong expressed desire for increased public education on product ingredients, their health risks, and sustainable beauty practices. As one participant from Akwa Ibom emphasized, "[w]e desperately need to be taught what is truly healthy for us and the environment, not just what makes us look good temporarily". This highlights a significant opportunity for interventions focused on consumer education and the promotion of a truly sustainable beauty culture in Nigeria.

CONCLUSION

This study set out to examine the intricate connections between changing toxic beauty culture, its disproportionate impact on Nigerians, and its contribution to the worsening climate conditions in the country. The findings unequivocally demonstrate that a pervasive toxic beauty culture is deeply entrenched in Nigerian society, driven by powerful socio-cultural pressures and amplified by media influence. This manifests in widespread engagement in practices such as skin lightening and chemical hair treatments, with 65% of all respondents having used skin lightening products at some point, and 78% of women using chemical hair treatments. These figures resonate with existing literature that highlights the global prevalence of skin lightening, particularly among women of color, often rooted in colonial legacies and colorism that equate lighter skin with higher social status and beauty (Blay & Twine, 2017; Glenn, 2008). The alarming rate of product sourcing from informal markets (55% of respondents) further corroborates concerns raised by studies on unregulated cosmetics, which often contain banned and harmful ingredients (Adebamowo & Adeyemo, 2009; Ladd & Ladd, 2013).

The findings strongly support the environmental injustice of beauty framework, revealing the severe human health consequences borne by those engaging in these practices. A significant 40% of skin lightening users reported adverse skin reactions, and 35% of chemical hair treatment users experienced hair and scalp issues. Beyond these immediate effects, qualitative data unveiled profound anxieties about long-term systemic health risks, including organ damage and cancers, directly linked by respondents to prolonged chemical

exposure. This aligns with research indicating that marginalized communities, often due to targeted marketing and lack of access to safer alternatives, disproportionately bear the burden of exposure to toxic chemicals in beauty products (Quirindongo & Campbell, 2016; Environmental Working Group, 2016). The poignant testimonial about kidney problems underscores the very real, often hidden, human cost of these beauty ideals, directly manifesting the health dimension of environmental injustice.

Crucially, the study also establishes the link between toxic beauty culture and anthropogenic climate change. While explicit awareness of the broad environmental ramifications of beauty products was limited (only 25% demonstrated a clear understanding), a substantial 70% expressed concern about plastic packaging waste. This highlights a gap between visible environmental problems and the more insidious chemical and carbon footprints of the beauty industry. The sheer volume of non-biodegradable packaging and the reliance on fossil fuel-derived ingredients for manufacturing and transportation of these products contribute to increased greenhouse gas emissions, waste accumulation, and chemical pollution of Nigeria's ecosystems (UNEP, 2019; Hawes & Hennessey, 2023). The continuous demand for such products, driven by societal pressures for "ideal" appearances, creates a feedback loop that intensifies environmental degradation. This directly reinforces the anthropogenic climate change theory, illustrating how human actions – in this case, consumer demand for specific beauty products and the industry's supply chain – directly contribute to environmental decline.

Despite these challenges, the study identified an encouraging openness towards sustainable beauty practices, with 50% of respondents willing to transition to eco-friendly alternatives. This willingness, coupled with a strong desire for increased public education on product ingredients and their risks, presents a significant opportunity for intervention. It suggests that while the current beauty culture is deeply ingrained and toxic, there is a receptive audience for initiatives promoting healthier, more sustainable choices. This underscores the need for multi-faceted approaches that not only challenge existing beauty ideals but also facilitate access to safer products and empower consumers with knowledge.

In essence, this research provides empirical evidence from Nigeria that toxic beauty culture is not merely a superficial concern but a critical public health and environmental issue. It is a manifestation of environmental injustice, disproportionately impacting vulnerable populations through direct exposure to harmful chemicals, while simultaneously exacerbating the climate crisis through unsustainable production and consumption patterns. Addressing this complex challenge requires a concerted effort to dismantle harmful beauty ideals, enforce stricter regulations on product ingredients, promote consumer education, and champion the widespread adoption of sustainable principles across the beauty industry in Nigeria and beyond.

RECOMMENDATIONS

The findings of this study call for urgent, practical steps that place sustainability, health, and justice at the centre of beauty practices in Nigeria. Addressing toxic beauty culture must go beyond individual choices to systemic reforms that align with global sustainability principles. First, the adoption of sustainable beauty measures should be prioritised by both industry and government. This includes stronger regulation of ingredients, mandatory labelling of cosmetic products, and certification systems that highlight safe and environmentally responsible options. Creating transparent supply chains, where product origins and compositions are traceable, will reduce reliance on informal markets and discourage the circulation of harmful chemicals.

Second, eco-friendly beauty practices must be actively promoted through public campaigns and education programmes. Women and men alike should be encouraged to embrace natural beauty routines, such as the use of locally sourced plant-based oils and herbal treatments, which have long histories in African cultures. Encouraging refillable packaging, biodegradable containers, and support for brands that champion waste reduction would further reduce the environmental footprint of the sector. Media platforms and influencers, who currently reinforce harmful ideals, should be engaged as advocates of safer, greener alternatives.

Third, sustainability requires a cultural shift in beauty ideals which involves challenging the colonial and colourist roots of skin lightening and chemical modification, while celebrating diverse skin tones and hair textures as socially valuable and beautiful. Schools, community organisations, and

religious institutions can be partners in this cultural transformation, embedding healthier standards of beauty in everyday life. Finally, the Nigerian beauty industry must embed sustainability principles across its operations, from sourcing renewable raw materials to reducing carbon emissions in production and transport. Partnerships with environmental organisations can accelerate the adoption of circular economy models, where waste is minimised and resources are reused. By pursuing these measures, Nigeria has the opportunity to redefine beauty in ways that honour human dignity, protect public health, and safeguard the environment.

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