

Submitted to Current Opinion in Pediatrics

Colorism: A Global Adolescent Health Concern

Nadia Craddock¹, Ncoza Dlova², Philippa C. Diedrichs¹

¹ *Centre for Appearance Research, University of the West of England, United Kingdom*

² *Dermatology Department, Nelson R Mandela School of Medicine, University of KwaZulu-Natal, Durban, South Africa.*

Correspondence to: Nadia Craddock, Centre for Appearance Research, University of the West of England, Coldharbour Lane, Bristol, BS16 1QY, UK; nadia.craddock@uwe.ac.uk; phone: +441173287924.

Conflict of Interest Statement: The authors have no conflicts to disclose.

Colorism: A Global Adolescent Health Concern

ABSTRACT:

Purpose of review: Colorism, a form of prejudice and discrimination based solely upon skin color; stands to jeopardize the physical health, wellbeing, and life chances of adolescents of color, globally.

Recent findings: Research shows that adolescents can experience colorism at school and college, in the criminal justice system, at work, and in the media they consume. It is therefore unsurprising that adolescents of color often express a desire for lighter skin tones and /or are dissatisfied with their skin tone. Although research is scarce, some studies include older adolescents in their samples of skin-lightening product users. This is significant as the evidence is clear that the unmonitored use of skin-lightening products can be harmful to physical and psychological health, with evidence linking skin-lightening use to skin damage, kidney failure, and depression.

Summary: While it is evident that colorism is central to the lives of adolescents of color, more research is needed concerning the use of skin-lightening products among adolescents. Media literacy and critical race theory offer avenues in helping attenuate the harmful impact of colorism for adolescents of color.

KEYWORDS: Colorism | Adolescence | Skin |Skin-Lightening | Body Image

Introduction:

Colorism is central to the lives of adolescents of color, globally (1). Defined as the prejudicial or preferential treatment of an individual based solely on skin color (2), colorism typically privileges those with lighter skin tones and occurs both within and between racial groups (3). Importantly, colorism intersects with gender as a lighter skin tone is recognized as a key component of global beauty ideals and thus is embodied as a form of ‘beauty capital’, particularly for women of color (4). Unsurprisingly, the global cosmetic skin-lightening industry reflects a burgeoning market as its products symbolize a gateway to accessing the social status associated with lighter skin tones (5). Consequently, the practice of skin-lightening has been identified as a serious, yet overlooked, public health and social justice priority due its negative health outcomes and intersection with colorism, racism, and gender (6, 7).

This review will discuss how colorism can affect the lives of adolescents of color. Next, it will describe how the skin-lightening industry can be harmful to adolescent health, identifying important gaps in the literature. Then, given the salience of skin color to body image, this review will draw upon body image literature to explore possible avenues to disrupt sociocultural pressures experienced by adolescents to aspire to lighter colored skin and engage in skin-lightening practices.

How adolescents experience colorism in their daily lives

Adolescence is a critical period of physiological and socio-emotional development, representing the transition from childhood to adulthood between the ages of approximately 12 to 25 years (8). Given the salience of this life stage, prejudice, stereotypes, and discrimination as a consequence of colorism can negatively impact the health, wellbeing, and life opportunities of adolescents of color (1). Although colorism has received noticeably less attention in the literature than racism (9), mounting evidence indicates that adolescents experience colorism in multiple contexts in their daily lives (1).

Education

Experiences of colorism in educational settings include preferential treatment by teachers and peers and can affect educational outcomes (1, 3, 10). Indeed, lighter-skinned people of color, particularly in Western countries, spend more years in education overall, perform better, and have greater access to higher education than their darker-skinned contemporaries (3). Research using nationally representative data from the United States (US) found that African American adolescent girls with darker complexions were more likely to receive an out-of-school suspension than African American girls with lighter complexions (11). Another study using nationally representative, longitudinal data found a lighter complexion was associated with higher educational attainment among both Asian American adolescent girls and boys after controlling for other factors such as socioeconomic status (12). Interestingly, a further longitudinal study following Asian American young adults over a four year period found that lighter colored skin was a protective factor against experiences of prejudice and depression, particularly for Asian American females (13), factors which, in turn, may inhibit academic performance. Importantly, such research introduces some additional nuance to the commonly discussed ‘black-white’ achievement gap in the US, as skin color intersects with race for educational outcomes (14).

Popular Culture

Colorism is pervasive in celebrity culture, music, and media where light skin is endorsed and dark skin is erased or vilified (15). This messaging is significant given how influential popular culture is upon adolescents' beliefs, attitudes, and behavior (16). Media images of celebrities of color (particularly women) are frequently digitally lightened in beauty or fashion magazines and advertisements, and preference is commonly given to models with naturally lighter skin (6, 17). Additionally, the higher status and apparent desirability for light-skinned women of color are ubiquitous in rap/hip-hop music lyrics and videos (18). Conversely, negative stereotypes rooted in colorism are common in media representations of people of color. For example, dark-skinned actors are disproportionately cast as criminals or unsavory characters compared to lighter-skinned actors (15).

Furthermore, social media platforms popular with adolescents (e.g., Instagram, Snapchat) have filters that automatically lighten the skin, thus indirectly endorsing lighter colored skin. There are also editing tools that allow users to self-lighten their skin in images, which seem to be popular among adolescents of color. For example, in an ethnographic study, Varghese (19) found the young Indian women used lightening filters in every photo of themselves before they uploaded them to social media as they perceived this would make the images more 'attractive' and 'likable'. Given the importance of peer validation and social media in the lives of adolescents, the reinforcement of colorism via social media images may be particularly potent in how adolescents feel about their own skin tone.

Criminal Justice and Employment

Recent evidence indicates colorist stereotypes play out in the criminal justice system and employment, negatively affecting dark-skinned individuals of color beyond the impact of race alone. For example, using sentencing data collected by the Georgia Department of Corrections (USA), researchers found that while medium- and dark-skinned African

American men and adolescents (13-80 years, median age = 25) receive sentences 5.5% higher than their white counterparts (20), light-skinned African Americans received sentences that were not statistically significantly different from their white peers after controlling for socioeconomic status. A discrepancy was also observed in the average sentencing length of a first offence among light- (-20 days), medium- (+200 days), and dark-skinned (+400 days) African American inmates compared to the average white inmate.

Investigating the influence of skin color in employment earnings, a study found differences in earnings stratified by skin tone among young African American men using representative data from the National Longitudinal Study of Youth (21). After controlling for skills accumulated prior to entering the labor market, the research found light-skinned African American men earned significantly more than their dark-skinned peers, and this gap increased over time. Similarly, a study examining the influence of skin color on wages among immigrants to the US using nationally representative data of 8,573 individuals also found a 'skin shade penalty' in wages for darker-skinned immigrants compared to their lighter-skinned peers (22). Interestingly, this finding was most pronounced among Latin-American immigrants.

Beauty Ideals and Body Image

Colorism is also deeply embedded in global beauty ideals (23) and so is especially salient for adolescent girls of color, as adolescent girls are particularly susceptible to sociocultural pressures to achieve unrealistic beauty standards (24, 25). Indeed, body image research demonstrates that body dissatisfaction is highly prevalent among adolescent girls. For example, between 34%-62% of adolescent girls across 24-countries reported body weight dissatisfaction (26). Significantly, body dissatisfaction is associated with negative health outcomes among adolescents such as anxiety, depression, eating disorders, and risky weight management behaviors (e.g., diet pills) in an attempt to change their appearance (27).

The Tripartite Model (28) is one of the most well-established sociocultural theories for the development of body dissatisfaction and subsequent eating disorder pathology. The model proposes that family, friends, and the media influence body image and disordered eating via the extent to which individuals internalize cultural beauty ideals and make appearance-related social comparisons. The Tripartite Model has been well supported among adolescent samples (29, 30). Given that skin color is a salient part of cultural beauty ideals (31), this model might usefully explain how sociocultural pressures for lighter colored skin can lead to body dissatisfaction and subsequent harmful skin-lightening behavior among adolescents of color, through the internalization of appearance standards that privilege lighter skin and appearance comparisons with those of lighter colored skin (9).

Importantly, for adolescents of color, skin color is a significant component of their body image. For example, researchers found British Asian and African Caribbean participants (mean age = 24 years) were dissatisfied with their skin tone and expressed a preference for a lighter colored skin (31). Significantly, dissatisfaction with skin color predicted decreased body appreciation, even after controlling for ethnicity, age, ethnic identity attachment, and self-esteem (31). Furthermore, dissatisfaction with skin color may evoke similar or even greater levels of concern compared to concerns surrounding body weight and shape (32). Although non-weight related characteristics are important to adolescent girls' and women's body image, they are often overlooked in mainstream body image research (33).

Skin Lightening and Adolescents

Given the pervasiveness of colorism, adolescents are at risk of adopting harmful skin-lightening practices (9, 34). Skin-lightening involves the use of cosmetic products (including creams, face washes, tablets, and injectables) that promise to lighten skin color (9). Although the practice of skin-lightening is not new, the growing availability and expanding range of

products and procedures reflects a burgeoning global industry projected to be worth \$31.2 billion by 2024 (35). The industry is buoyed by women in ‘global south’, who are the most frequent consumers of skin-lightening products (6). Up to 77% of women in parts of Africa, Asia and the Middle East use products to lighten their skin (36). In some countries (e.g., India, Thailand) skin-lightening products represent over half of the entire dermatological market (5, 37).

Skin-lightening poses a significant risk to health as many products contain toxic chemicals such as mercury, hydroquinone, and corticosteroids (6). Their (unmonitored) use can cause permanent skin damage (including post-inflammatory hyperpigmentation, contact dermatitis, and ochronosis), as well as life-threatening conditions such as renal failure and skin cancer (38). Despite the ban of hazardous chemical ingredients such as hydroquinone in over-the-counter cosmetic skin-lightening products in countries such as Australia, Ghana, South Africa, and throughout Europe, these products are still widely available elsewhere and on the black market, and are often very affordable and accessible (38). Moreover, some evidence suggests that even when products have been deemed to have ‘safe’ levels of hydroquinone by FDA standards, regular unmonitored use can lead to accumulation of ingredients in the liver and kidneys, which can eventually cause irreversible damage (39). Therefore, commencing skin-lightening practices during adolescence stands to have enduring cumulative repercussions to an individual’s physical health.

Research indicates that skin-lightening product use is also correlated with negative mental health outcomes among adolescents and young adults. A large cross-sectional study of female university students from 26 countries found depression was significantly correlated with skin-lightening product use (5). Another cross-sectional study found poor mental health was associated with skin-lightening product use among female university students in five Southeast Asian countries (40). In addition, one study explored the link between skin-

lightening and body dissatisfaction and found that 50% (n=80) of skin-lightening product users reported body dissatisfaction (41). Notably, the common limitation of these studies is their cross-sectional design, thus the directionality of the relationship between skin-lightening use and psychological wellbeing is unclear.

Despite the potential risks of skin lightening to adolescent health, there is a need for more research to document the prevalence of skin-lightening practices among adolescents, as robust research is sparse. There are, however, a few recent studies exploring the practice of skin-lightening which have included mid to late adolescents in their samples. One study examined skin-lightening practices among 620 female university students in Cameroon (mean age = 21.3, range 16-46 years), and found that 27.3% of participants reported to be currently using skin-lightening products (42). Current skin-lightening practices did not vary by age when compared to non-users. However, the authors noted that the practice of skin lightening is taboo in Cameroon, consequently the incidence of skin-lightening use among this population may be underreported.

A much larger, cross-sectional study including 19,624 university students from 26 low and middle income countries found the 12-month prevalence of skin-lightening product use to be 16.7% in male and 30% in female students (5). Use varied greatly by country, from 0% in Turkey to 83% in Thailand. However, as the mean age was 20.8 (SD = 2.8), the findings may not be entirely reflective of younger adolescents. Furthermore, the generalizability of the findings is limited to university students in these countries.

Tackling colorism and skin lightening among adolescents

Intervention and prevention efforts are required to attenuate the negative impacts of colorism on adolescents' lives. Media literacy and critical race theory offer potential fruitful avenues for reducing the negative impact of colorism on an adolescent's life as it relates to body image and the harmful practice of skin lightening.

Media literacy skills training is a common strategy in prevention programs targeting unhealthy beliefs and behaviors, such as body dissatisfaction and disordered eating, among adolescents (43). Media literacy encourages adolescents to question how realistic images presented in the media are, how stereotypes and prejudices are communicated, and the ubiquity of commercial motives to sell products (44). Body image researchers theorize that media literacy has the potential to be effective by disrupting the pathway between media pressure to achieve appearance ideals and subsequent internalization and upward appearance-related social comparisons in line with the Tripartite Model (29). This is partly supported by a recent systemic review of 16 studies exploring the role of media literacy interventions, often conducted in schools, for body dissatisfaction and disordered eating. The review found that increased media literacy (e.g., skepticism and awareness of media motives for profit) improved body image-related attitudes, although it did not affect disordered eating behaviors (43). Media literacy approaches to reducing colorism among adolescents could encourage young people to think critically about advertising and media practices in relation to skin color (including beauty ideals and other stereotypes) and skin lightening products.

As the practice of skin lightening is rooted in colorism, incorporating critical race theory in prevention programs could serve to address the wider societal issue of color-based privilege and oppression. Critical race theory offers counter-narratives as a means to recognize and legitimize the perspectives of traditionally marginalized groups of people (45). Tenants of critical race theory, such as power and privilege of (intra)racial identities, finding voice for the disempowered, and the use of counter-narratives to share perspectives can be applied to colorism and thus are relevant in remedying negative associated outcomes such as skin-lightening product use (4). Incorporating critical race theory into programs designed to attenuate the negative effects of colorism allows students to, for example, examine the

colonialist roots of many major skin-lightening manufactures, which are European, yet sell these products exclusively to the global south.

Conclusion and Directions for Future Work

Colorism and the pursuit of lighter colored skin is a highly relevant topic for adolescents of color (9). Despite this, research investigating the prevalence, nature and consequences of colorism for adolescents in recent years is sparse. Evidently, there is an urgent need for more research exploring the trends, motivations, risk factors and outcomes of colorism and skin lightening in general and among adolescents in particular. One priority is to ascertain age of onset of skin-lightening product use in order to determine when to target prevention programs. A second priority concerns work around the acceptability and effectiveness of skin-lightening prevention and intervention programs given the sensitivity of the topic and the vulnerability of the adolescent period of development. For example, research should examine whether race-matched facilitators impact outcomes. Finally, given the systemic nature of colorism, intertwined with issues of race, gender and class, macro-level intervention (e.g., advertisement regulation, education and employment policy) is required.

KEY POINTS:

1. Colorism can affect adolescents of color in a multitude of ways in their daily lives.
2. Colorism refuels the large and growing skin-lightening industry.
3. Skin lightening products can be extremely dangerous to an adolescent's physical and psychological health.
4. More research is urgently required on skin-lightening among adolescents.

Acknowledgements:

1. Acknowledgements: none
2. Financial support and sponsorship: none
3. Conflicts of interest:

PD is a paid independent consultant to, and has received research funding from, the Dove Self-Esteem Project (Dove, Unilever). Unilever had no role in this paper, including its conception, content, or publication. The authors declare no other potential conflicts of interest.

REFERENCES:

1. Adams EA, Kurtz-Costes BE, Hoffman AJ. Skin tone bias among African Americans: Antecedents and consequences across the life span. *Developmental Review*. 2016;40:93-116.
2. Walker A. In search of my mothers' garden. *Within the Circle: An Anthology of African American Literary Criticism from the Harlem Renaissance to the Present*, Angelyn Mithchell (ed) Duke University Press, Durham. 1983. * *Seminal text. Walker coined the term colorism in this text.*
3. Hunter M. Colorism in the classroom: How skin tone stratifies African American and Latina/o students. *Theory Into Practice*. 2016;55(1):54-61. * *This article theorises the classroom-level interactions between students, teachers, parents, and administrators that contribute to color-based discrimination i.e., colourism in schools. This article theorises how colorism affected the educational trajectories of African-American and Latina/o adolescents.*
4. Hunter ML. "If you're light you're alright" light skin color as social capital for women of color. *Gender & society*. 2002;16(2):175-93. **Seminal paper theorising the specific impact of colourism for women.*
5. Peltzer K, Pengpid S, James C. The globalization of whitening: prevalence of skin lighteners (or bleachers) use and its social correlates among university students in 26 countries. *International Journal of Dermatology*. 2016;55(2):165-72. ** *This study included a very large sample of 19,624 university students from 26 low and middle income countries and provides prevalence rates and associated risk factors for skin lightening product use.*
6. Glenn EN. Yearning for lightness: Transnational circuits in the marketing and consumption of skin lighteners. *Gender & Society*. 2008;22(3):281-302. * *Key paper critiquing the skin-lightening industry, highlighting the toxic impact of skin lightening products and the social inequity of intervention in this area.*
7. Shroff H, Diedrichs PC, Craddock N. Skin color, cultural capital, and beauty products: An empirical investigation of the use of skin fairness products in India. *Frontiers in Public Health*. 2017;5:365. ** *This study explored skin fairness product use among 1992 women and men aged 16-60 years in metropolitan Mumbai, India using a self-report questionnaire.*
8. Crews F, He J, Hodge C. Adolescent cortical development: a critical period of vulnerability for addiction. *Pharmacology Biochemistry and Behavior*. 2007;86(2):189-99.
9. Hunter ML. *Race Gender and the Politics of Skin Tone*. New York. Routledge; 2013. **Important discussion of the intersection between race, gender, and colorism.*
10. Hannon L, DeFina R, Bruch S. The relationship between skin tone and school suspension for African Americans. *Race and Social Problems*. 2013;5(4):281-95.
11. Blake JJ, Keith VM, Luo W, Le H, Salter P. The role of colorism in explaining African American females' suspension risk. *School Psychology Quarterly*. 2017;32(1):118. * *This study uses nationally representative US data to show colorism is a significant predictor of school suspension risk among African American adolescent girls.*
12. Ryabov I. Colorism and educational outcomes of Asian Americans: evidence from the National Longitudinal Study of Adolescent Health. *Social Psychology of Education*. 2016;19(2):303-24.

13. Tran AG, Cheng H-L, Netland JD, Miyake ER. Far from fairness: Prejudice, skin color, and psychological functioning in Asian Americans. *Cultural Diversity and Ethnic Minority Psychology*. 2017;23(3):407.** *Using nationally representative longitudinal data, this study shows colourism negatively affects Asian American adolescents' mental health and social experiences, particularly for Asian American adolescent girls.*
14. Monroe CR. Colorizing educational research: African American life and schooling as an exemplar. *Educational Researcher*. 2013;42(1):9-19.
15. Hall R. The bleaching syndrome: African Americans' response to cultural domination vis-à-vis skin color. *Journal of Black Studies*. 1995;26(2):172-84.**A seminal paper on colorism and skin lightening practices as a means to access social capital.*
16. Giles DC, Maltby J. The role of media figures in adolescent development: Relations between autonomy, attachment, and interest in celebrities. *Personality and individual differences*. 2004;36(4):813-22.
17. Phoenix A. colourism and the politics of beauty. *Feminist Review*. 2014;108(1):97-105.
18. Maxwell ML, Abrams JA, Belgrave FZ. Redbones and earth mothers: The influence of rap music on African American girls' perceptions of skin color. *Psychology of Music*. 2016;44(6):1488-99.
19. Varghese J. Fair (?) & Lovely: Ideas of beauty among young migrant women in Chennai, India. *Women's Studies Journal*. 2017;31(1):59.* *An ethnographic study that describes the role of skin lightening products in young Indian women's lives*
20. Burch T. Skin Color and the Criminal Justice System: Beyond Black-White Disparities in Sentencing. *Journal of Empirical Legal Studies*. 2015;12(3):395-420.
21. Kreisman D, Rangel MA. On the blurring of the color line: Wages and employment for Black males of different skin tones. *Review of Economics and Statistics*. 2015;97(1):1-13.
22. Rosenblum A, Darity Jr W, Harris AL, Hamilton TG. Looking through the Shades: The Effect of Skin Color on Earnings by Region of Birth and Race for Immigrants to the United States. *Sociology of Race and Ethnicity*. 2016;2(1):87-105.
23. Jha M. *The global beauty industry: Colorism, racism, and the national body*: London: Routledge, Taylor and Francis Group; 2015.
24. Stice E, Whitenton K. Risk factors for body dissatisfaction in adolescent girls: a longitudinal investigation. *Developmental psychology*. 2002;38(5):669.
25. Halliwell E, Diedrichs PC. Influence of the media. In: *The Oxford handbook of the psychology of appearance*. Edited by Rumsey, N & Harcourt D (editors). Oxford: Oxford University Press; 2012. pp. 217-38.
26. Al Sabbah H, Vereecken CA, Elgar FJ, Nansel T, Aasvee K, Abdeen Z, et al. Body weight dissatisfaction and communication with parents among adolescents in 24 countries: international cross-sectional survey. *BMC Public Health*. 2009;9(1):52.* *A cross-sectional study showing prevalence rates of body dissatisfaction among adolescents in 24 countries.*
27. Bucchianeri M, Neumark-Sztainer D. Body dissatisfaction: an overlooked public health concern. *Journal of Public Mental Health*. 2014;13(2):64-9.
28. Thompson JK, Heinberg LJ, Altabe M, Tantleff-Dunn S. Exacting beauty: Theory, assessment, and treatment of body image disturbance: *American Psychological Association*; 1999.**This paper introduces the Tripartite Model - that shows a pathway between sociocultural pressures and body image concerns.*
29. Rodgers RF, McLean SA, Paxton SJ. Longitudinal relationships among internalization of the media ideal, peer social comparison, and body dissatisfaction:

- Implications for the tripartite influence model. *Developmental Psychology*. 2015;51(5):706.
30. Shroff H, Thompson JK. The tripartite influence model of body image and eating disturbance: A replication with adolescent girls. *Body image*. 2006;3(1):17-23.
 31. Swami V, Henry A, Peacock N, Roberts-Dunn A, Porter A. "Mirror, mirror...." A preliminary investigation of skin tone dissatisfaction and its impact among British adults. *Cultural Diversity and Ethnic Minority Psychology*. 2013;19(4):468. * *This study examined skin tone dissatisfaction among British young adults (mean age 24). The study found a preference for lighter colored skin among non-white participants and showed skin tone dissatisfaction negatively affected a more holistic measure of body appreciation.*
 32. Awad GH, Norwood C, Taylor DS, Martinez M, McClain S, Jones B, et al. Beauty and body image concerns among African American college women. *Journal of Black Psychology*. 2015;41(6):540-64.
 33. Pope M, Corona R, Belgrave FZ. Nobody's perfect: A qualitative examination of African American maternal caregivers' and their adolescent girls' perceptions of body image. *Body image*. 2014;11(3):307-17.
 34. Shrestha S. Threatening consumption: managing US imperial anxieties in representations of skin lightening in India. *Social Identities*. 2013;19(1):104-19.
 35. Global Industry Analysts I. *Obsession With Lighter Skin Tones in Asia, the Middle East & Africa Drives Opportunities in the Global Skin Lighteners Market*. 2017. Available from http://www.strategyr.com/MarketResearch/Skin_Lighteners_Market_Trends.asp [Accessed 1st February 2018].
 36. WHO. *Mercury in skin lightening products*. 2011. Available from http://www.who.int/ipcs/assessment/public_health/mercury_flyer.pdf [Accessed 1st February 2018].
 37. Banerji R. *In the dark: What is behind India's obsession with skin whitening?* 2016. Available from <https://www.newstatesman.com/politics/feminism/2016/01/dark-what-behind-india-s-obsession-skin-whitening> [Accessed 1st February 2018].
 38. Jacobs M, Levine S, Abney K, Davids L. Fifty shades of African lightness: a bio-psychosocial review of the global phenomenon of skin lightening practices. *Journal of Public Health in Africa*. 2016;7(2).
 39. Agorku ES, Kwaansa-Ansah EE, Voegborlo RB, Amegbletor P, Opoku F. Mercury and hydroquinone content of skin toning creams and cosmetic soaps, and the potential risks to the health of Ghanaian women. *SpringerPlus*. 2016;5(1):319. * *Indicates the physical harm associated with skin-lightening products*
 40. Peltzer K, Pengpid S. Knowledge about, attitude toward, and practice of skin lightening products use and its social correlates among university students in five Association of Southeast Asian Nations (ASEAN) countries. *International Journal of Dermatology*. 2017;56(3):277-83. ** *Identified risk factors of skin lightening product use include poor mental health and unawareness of harm associated with products*
 41. Charles CA, McLean SK. Body image disturbance and skin bleaching. *British Journal of Psychology*. 2017. ** *One of the few studies looking at body image and skin lightening*
 42. Kouotou EA, Nansseu JRN, Adegbidi H, Mebara TCJZ, Ndam ECN. Skin whitening among Cameroonian female university students: knowledge, attitudes, practices and motivations. *BMC women's health*. 2017;17(1):33. * *One of the few studies exploring motivations for skin lightening use among female university students in Cameroon. Participants reported to using skin lightening products to achieve a uniform skin*

color. The study highlighted a lack of awareness concerning the risks of skin lightening products among skin lightening product users.

43. McLean SA, Paxton SJ, Wertheim EH. The role of media literacy in body dissatisfaction and disordered eating: A systematic review. *Body image*. 2016;19:9-23.
44. Scharrer E, Ramasubramanian S. Intervening in the media's influence on stereotypes of race and ethnicity: The role of media literacy education. *Journal of Social Issues*. 2015;71(1):171-85.
45. McArthur SA. Black girls and critical media literacy for social activism. *English Education*. 2016;48(4):362.