

Use of skin lightening creams among female University students in Zimbabwe: a preliminary survey

James January^{a*}, Yvonne Tafadzwa Mberi^b, Rutendo Roselyn Muchenje^b,
Laston Gonah^c, Shepherd Shamu^a, Roy Tapera^d

^aDepartment of Community Medicine, College of Health Sciences, University of Zimbabwe

^bSchool of Pharmacy, College of Health Sciences, University of Zimbabwe

^cFaculty of Medicine, Midlands State University

^dDepartment of Environmental Health, Faculty of Health Sciences, University of Botswana, Gaborone, Botswana

ABSTRACT

Objective: To explore the prevalence and beliefs around use of skin lighteners among female university students at the University of Zimbabwe.

Methods and Materials: We conducted a descriptive cross sectional survey to ascertain the prevalence and correlates of use of skin lightening creams among a sample of 138 female university students (mean age 22years, SD=1.73) who responded to self-administered questionnaires.

Results: Prevalence of use of skin lightening creams among the respondents was 20%. Most of the women (83.3%) preferred lighter skin tone, and 93.3% perceived light skin as a symbol of beauty, 65% as a sign of wealth and 23.3% as symbolizing power.

Conclusions: Results from this survey provide a preliminary evidential entry point for health promotion interventions in a potentially influential subgroup of *society*.

*Corresponding Author

James January

Department of Community Medicine,
College of Health Sciences, University of Zimbabwe,
Box A178, Avondale, Harare, Zimbabwe. +263 4795835;
email: miranda.january@gmail.com

INTRODUCTION

Skin lightening and bleaching have been reported to be a common and harmful practice globally with women from Africa ranking among the top users of skin lighteners.^{1,3} Use of skin lightening creams have been associated with many adverse effects^{1,2,3} such as ochronosis, rashes and systematic effects such as diabetes mellitus, hypertension and even psychosis due to the ingredients they contain.

Most societies appreciate light skin tone as beautiful and in some cases it is regarded as a form of social capital. Research evidence from Togo indicated that some of the motives to use these skin lighteners included a desire to be noticed, the desire to be beautiful, appreciation of light colored skin, following fashion trends and the need to have a good social standing⁵. In a Tanzanian study, women in relationships admitted to using the products as a way to maintain their appeal to their partners². In a study at the University of Sudan it was found that 8 out of 10 of Sudanese undergraduate females had tried skin-whitening products⁶. Another study conducted in four university campuses of Yaoundé, Cameroon the main reasons for using lightening creams were the desire to have a uniform body skin color, followed

Key words: prevalence, skin lighteners, university students, Zimbabwe

by the need to have a soft skin (7). A high prevalence of skin lightening products use was found in a large sample from five Association of Southeast Asian Nations (ASEAN) university students, and several social and mental health-related risk factors were found that may help in guiding interventions (8,9). Given that the motives of using products are mostly socially influenced as indicated in previous findings, younger university students are more likely to be susceptible to social influence such as conformity.

Although the prevalence of use of skin lighteners among tertiary students in Zimbabwe is unknown, the use of skin lighteners in Zimbabwe has been previously documented¹⁰. However it is not clear to what extent female University students use these products and their perceptions towards the products. Thus it is imperative to explore the prevalence and beliefs around use of skin lighteners among female university students since they constitute an influential group in society.

METHODS

We conducted a descriptive cross sectional survey among University of Zimbabwe female students from April to May 2014. The University of Zimbabwe is the largest and oldest university in Zimbabwe and attracts students from most parts of Zimbabwe.

Data Collection procedure

Using Yamane (1967) formula the population size of $N = 18,000$ (student population at the University of Zimbabwe by time of study) and a 92% confidence level with a precision of 0.07; the required sample size for the study was 138. Non-probability convenience sampling was employed to recruit 138 female students from different undergraduate degree programmes at the University. Two female researchers approached the female students, explained the rationale and purpose of the study, and

after obtaining informed consent, issued out questionnaires to the students. All questionnaires were administered in English language. All questionnaires were checked for completeness in the field before storage.

Data Analysis

Statistical analysis of the results was carried out using the Epi Info (version 3.5.3) software. Descriptive statistics were utilized to describe the demographic characteristics of the students in our study sample. The overall prevalence of use of skin lighteners was calculated. In addition, prevalence for use of skin lighteners was calculated separately by marital status and type of degree programme the students were enrolled in (medical and non-medical). Separating students into medical and non-medical categories was done to see whether medical knowledge had any potential influence on use of skin lightening creams among university students.

Ethics

The Institutional Review Board of the University of Zimbabwe, College of Health Sciences reviewed and approved the study protocol prior to commencement of the study. All the students gave written informed consent.

RESULTS

Demographic characteristics of respondents, n = 138 (mean age = 22 years; SD = 1.73)

	Number	%
Program of study		
• Medical	39	28
• Non-medical	99	72
Marital Status		
• Married	35	25
• Single	104	75

A total of 138 students responded giving a response rate of 100% and all the questionnaires were used in the analysis. The women were aged from 20–27 years, with a mean age of 22 years (SD=1.73). The students were divided into two broad categories namely medical (28%) and non-medical students (72%). A minority (25%) were married with the remainder being single.

The overall prevalence of use of skin lightening creams among our sample was 20%. When disaggregated by marital status, 6 (17%) of the married students and 21 (20%) of the unmarried students reported use of skin lighteners; and when disaggregated by program of study, the use of skin lighteners was 5 (13%) and 18 (18%) among medical and non-medical students, respectively.

Knowledge and perceptions of students on use of skin lighteners

Results revealed that 61.7% of the students expressed satisfaction with their skin colour. On skin tone 83.3% preferred the light skin tone and the other 16.7% preferred the dark skin tone. Almost all (94.9%) women knew of someone who uses skin lightening creams and 5.1% did not know of anyone who uses skin lightening creams. The respondents gave more than one perception on what they thought was the meaning of skin tone: 93.3% thought light skin was a symbol of beauty, 65% thought light skin was a sign of wealth and 23.3% agreed that light skin symbolized power.

Awareness on the adverse effects of skin lightening products

Responses given by the students revealed that a majority (66.7%), reported that when the skin lightens it becomes thin and only a few (13.3%) linked the use of skin lighteners with diabetes and 15% reported that these products can cause hypertension.

DISCUSSION

Use of skin lighteners poses major challenges to the public health fraternity since it results in adverse health outcomes.^{1,2,3} In our study, a proportion of 20% of University of Zimbabwe students used skin-lightening creams and 94.9% of the women knew of someone who uses the creams. These results concur with findings from Senegal where the prevalence of use of skin lighteners was reported to be 26%.¹¹

When disaggregated by marital status, the use of skin lightening creams is more common among the unmarried students with a prevalence of 20% as compared to the 17% amongst the married students. Given the low numbers of married students in our sample, it is possible that this group may have been under-represented and the slight difference in the prevalence rates may not really be significant. Future studies could possibly explore this link. A possible plausible explanation for these differences could also be that younger unmarried women may be more likely to use skin lighteners due to pressures from society for them to look attractive so as to attract potential marriage partners.

Most of the women in the study population (83.3%) preferred light skin which confirms past research from other parts of Africa^{2, 11}. Most of the females also agreed that light skin is a symbol of beauty, success and wealth which is a notion that is prevalent in most of Africa⁵. These factors have become an influence for the use of skin lightening creams.

As revealed by the findings from our study, most students cited adverse effect such as thinning of the skin as a result of using skin lightening creams and very few mentioned systemic disorders such as hypertension and/or diabetes mellitus despite evidence that exist that these creams can cause systemic disorders³. Lack of correct information on some of the adverse effects of using skin lighteners

present as an opportunity for health promotion interventions aimed at reducing the practice of using skin bleaching agents. However, the awareness of the side effects could have been affected by the fact that most of the women (72%) were not studying medical related programs. The significance of awareness on the possible harmful effects of skin lighteners on health can in part be shown by the lower proportion of medical students who used skin lighteners (13%), compared to that for non-medical students (18%).

A major limitation to this study was convenience sampling which was used to identify study participants. This might have resulted in a study population that might not have been representative enough for the whole University of Zimbabwe female student community, thus resulting in bias and inability to generalize our findings. Again, all data was collected at only one institution of higher education in the country leaving out more than ten universities which are in Zimbabwe, thus there is need for future studies to incorporate findings from all universities in Zimbabwe and make generalizations for all female university students in Zimbabwe. However, the present study is worthwhile in providing preliminary evidence and insights on the use of skin lighteners among university students in Zimbabwe, to inform future larger studies on the area.

CONCLUSION

This study sets a base for future studies to be conducted looking at factors that contribute to the use of these products among women in Zimbabwe. The prevalence of use of skin lighteners was 20% among female university students and it would be crucial to compare this with the general population which may be less aware of the adverse consequences of using these products.

REFERENCES

1. Cristaudo A, D'Ilio S, Gallinella B, Mosca A, Majorani C, Violante N, et al. Use of Potentially Harmful Skin-Lightening Products among Immigrant Women in Rome, Italy: A Pilot Study. *Dermatology*. 2013;226(3):200–6.
2. Lewis KM, Robkin N, Gaska K, Njoki LC. Investigating Motivations for Women's Skin Bleaching in Tanzania. *Psychol Women Q*. 2011 Mar 1;35 (1):29–37.
3. Olumide YM, Akinkugbe AO, Altraide D, Mohammed T, Ahamefule N, Ayanlowo S, et al. Complications of chronic use of skin lightening cosmetics. *Int J Dermatol*. 2008 Apr 1;47(4):344–53.
4. Arbab AH, Eltahir MM. Review on Skin Whitening Agents. *Khartoum Pharm J*. 2010;13(1):5–9.
5. Kpanake L, Sastre MTM, Mullet E. Skin Bleaching Among Togolese: A Preliminary Inventory of Motives. *J Black Psychol*. 2010 Aug 1;36(3):350–68.
6. Ahmed, A.E. & Hamid, M.E. J. Racial and Ethnic Health Disparities (2017) 4: 149. <https://doi.org/10.1007/s40615-016-0212-5>
7. Kouotou EA, Nansseu JRN, Adegbid H, Mebara TCJZ, Ndam ECN. Skin whitening among Cameroonian female university students: knowledge, attitudes, practices and motivations *BMC Women's Health* (2017) 17:33 DOI 10.1186/s12905-017-0385-z
8. Peltzer K and 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. *Int J*

- Dermatol. 2017 Mar; 56(3):277-283. doi: 10.1111/ijd.13518
9. Siti Zulaikha Rusmadi, Sharifah Norkhadijah Syed Ismail, and Sarva Mangala Praveena, "Preliminary Study on the Skin Lightening Practice and Health Symptoms among Female Students in Malaysia," *Journal of Environmental and Public Health*, vol. 2015, Article ID 591790, 6 pages, 2015. doi:10.1155/2015/591790
 10. Gwaravanda E. Shona Proverbial Implications on Skin Bleaching: Some Philosophical Insights. *J Pan Afr Stud*. 2011;4(4).
 11. Del Giudice P, Yves P. The widespread use of skin lightening creams in Senegal: a persistent public health problem in West Africa. *Int J Dermatol*. 2002 Feb 1;41(2):69–72.
 12. Yamane, T. (1967). *Elementary sampling theory*.