Original Research Article

Hair Disorders and Health Discourse of Black Police Women: A New Public Health Challenge in the 21st Century

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ABSTRACT

Background: Police are expected to subscribe to professionalism; yet no study has ever been done that examined their quality of life, hair dysfunction, self-esteem and evaluate the extent of their hair disorders as well as examine the correlation of hair disorders.

Objectives: The current study seeks to determine the extent of hair disorders among women in the Jamaica Constabulary Force (JCF); examine perceived stress, self esteem and quality of life of policewomen in the JCF, hair disorders, and evaluate the correlation between self-esteem, stress, wellbeing, socio-demographic characteristics, perceived value of hairstyle, policy on hairstyle, hair quality and hair dysfunction.

Materials and Method: Stratified random sampling was employed of the eight Divisions (or Areas) in the Jamaica Constabulary Force and Other Sections therein. The computed sample size was 44 police women for each Area and 48 from the Other Divisions, and this was based on equal proportion across the Areas. The sampled officers represent 12.6 percentage points of the 3,180 policewomen in Jamaica.

Results: Six in every 10 policewomen indicated that they have a hair dysfunction. On average, a policewoman with hair disorder has lower psychological wellbeing (6.91 ± 2.223; 95% CI: 6.60-7.21) compared to those who do not have hair disorders (7.49 ± 1.861; 95%CI: 7.17-7.80) - t-test = -2.608, $P = 0.010$).

Conclusion: Hair disorders must be assessed as a health issue and be included among the concerns of public health and policies are needed in this regards.

KEYWORDS: Hair; hair disorders; health discourse; quality of life, police women.

INTRODUCTION

The discourse on hairstyles, particularly among police, in the 21st century focuses primarily on hairstyle-professionalism with little attention to the public health challenge of hair disorders.

Lee [1] aptly describes the hairstyle policy and positions taken by some senior administrators in police departments as oppressive in nature, one that is culturally insensitive and lacks individuality as well as diversity. Penning the words of the police

officer in Dallas who was fired for his choice of hairstyle, Lee writes: "Who would have thought 20 years ago there would be someone on the police force wearing dreads?" "The rules are not set up to single out blacks. It's just a part of the culture of the institution". [1]

The questions which arise in the discourse on hairstyle among police personnel are: 1) what constitutes a professional look, 2) can a decision of management be too much and comes across as oppressive and violate human rights, 3) where is the individualism in regulating hairstyle for the workplace, and 4) how should managers balance their perspectives with those of the culture, individualism and not trample on human rights while fostering a work atmosphere that is holistic, conducive to a harmonious relationship between them and staffers, and meeting the expectations of all. Outside of the organizational expectations, internal dynamics of managers and staffers on hairstyle, the general populace has a certain impression and expectation of people, particularly police officers. There is a cultured interpretation of people and the public's interpretation of police officers in this design, which could explain the reasons police officers, cannot wear any hairstyles while on uniformed duty. Police are continuously having to interact with the public and this social interaction brings about an assessment of officers based on some culturalized standard and expectations. [2] Police is a profession [3-5] and their appearance, which includes hairstyle, is part of the professionalism [6] and justifies some regulations on the matter. In this professional look that police departments seek to attain, there are many issues that are unresolved and become problematic for senior managers. Lee opens this discussion, when she postulated that: The policy, written in the 1970s, addresses Afro

hairstyles but it does not mention current styles, such as dreadlocks and twists. Bolton, who is black, has told officers and members of his top command staff that he does not approve of the hairstyles. [1]

A matter expressed in the Jamaica Gleaner provides an interpretation that senior managers in the Jamaica Constabulary Force (JCF) expect a cultured look, particularly for women officers, which is similar to that in the Dallas police department outlined above. [1] The article in the Jamaica Gleaner by Silvera [7] had a caption 'Policewomen Fight To wear Afrocentric 'Dos,' which speaks to an ongoing problem in the Jamaican police force, which is typical across other jurisdiction. [1,7-9] The issue is managers are attempting to standardize the hairstyles regardless of ethnicity, and it appears that the focus is not solely on the styles of those of African descent. The African art and craft of dressing the hair is often times abandoned [10] for a more Eurocentric look. The African craft and styles of hairdos are construed as 'vulgar and disorderly' for police officers of African descent in Jamaica, which accounts for the banning of many such hairstyles from the hierarchy of the JCF. [7,11] There is still another side to the hairstyle discourse that is unexplored, hair dysfunction and health, measured from sub-components of wealth and general subjective health.

The tragedy of non-standardization in hairstyles, particularly among police officers, pose some challenge as the cut-off point in this individualistic framework has expiration and can distort the expected perception of the public on the police. It is this same individualism that led to the suspension of a police officer in Dallas. [1] and the institutionalization of hairstyle in many police handbook or Force Orders. [9, 11] The individualism of some police officers has resulted in the restriction of particular

hairstyle as they are deemed inappropriate. The decision to make some hairstyle inappropriate in the police department, across the globe, is primarily owing to extreme individualism. Outside of style, there are some hair dysfunctions (or disorders) that accounts for women having to choose certain hairstyle to cover the conditions. In such cases hairstyles are more than trendy look, fad, and individualism, they are in keeping with the professional appearance that some women need to apply in order to mitigate the psychological scars of the ill-health hair conditions.

Women continue to process and/or style their hair in various hairstyles and the price of this process results in hair and scalp disorders. The price of beauty in the contemporary society is still not a focus of public health, despite the number of women who have experienced hair and scalp dysfunctions owing to the hairdos. There are many hair and scalp disorders that affect humans (i.e., alopecia; Telogen effluvium; Hair breakage; Central centrifugal cicatricial alopecia; Trichotillomania; cicatricial alopecia). One scholarly article had this caption 'I think I'm losing my hair' [12] another notes 'How to treat: Hair loss and 'hirsutism' [13] and in another the headline read 'Chronic telogen effluvium: increased scalp hair shedding in middle aged women' [14] indicating that hairstyle-professionalism must be examined with critical urgency in public health as it will influence the new professionalism that the police department intends to achieve.

Ironically, although a person's look is critical to the issue of professionalism, hair and scalp disorders were never featured in an examination of professionalism in the Jamaica Constabulary Force (JCF) and its auxiliary the Island Special Constabulary Force (ISCF), especially among police women. There are over 3,000 police women employed with the JCF and the ISCF in Jamaica, and there is a specific requirement with regards to appearance. This professional-look for police women has never been examined as it relates to 1) hair disorders, 2) health and 3) the extent of the hair dysfunction among police women in Jamaica. Despite this reality, the literature is extensive on hair and scalp dysfunctions. [15-23] but there is a paucity of information in public health on hairstyle-professionalism and cost association, to include hair and scalp disorders, perceived stress, self-esteem, and quality of life among women in a police department, especially women of African descent. Clearly, there is a price-effect of beauty which includes reduced health that has never been highlighted in the literature in health discourse and its public health challenges. The current study seeks to determine the extent of hair disorders among women in the JCF; examine perceived stress, self esteem and quality of life of policewomen in the JCF, and evaluate the correlation between self-esteem, stress, wellbeing, socio-demographic character-istics, perceived value of hairstyle, policy on hairstyle, hair quality and hair dysfunction.

MATERIALS AND METHODS
Sample
The present study used data from a cross-sectional national mixed methodological study, which was conducted in between October 2012 to May 2013. The initial study was to evaluate "Hairstyle-Professionalism for women police officers in the Jamaica Constabulary Force (JCF) and provide a guideline for a standardized Hairstyle-Professional appearance for female officers in the JCF. [24] The actual data collection was carried out over a four-month period, January to April 2013. Initially, the computed sample was 400 police women from the JCF, ISCF and Constables across Jamaica (i.e., the 8 Areas and Other Divisions in the Jamaica

Constabulary Force). The Jamaica Constabulary Force is categorized into 8 police Divisions (or Areas) along with special Divisions that may operate within a general Division (or Area). Stratified random sampling was employed of the eight Divisions and Other Sections in the police force. The computed sample size was 44 police women from each Area and 48 from the Other Divisions, and this was based on equal proportion across the Areas. [23] The sampled officers represent 12.6 percentage points of the 3,180 policewomen in Jamaica. Of the 2,095 policewomen in JCF, 264 was sampled (i.e. 12.6%); of 483 in ISCF, 61 were chosen for the sample (i.e. 12.6%) and of 602 District Constables, 75 were selected for the sample (12.5%). The inclusion criteria for this study were 1) police women employed by the Jamaica police department (ie. JCF, ISCF or District Constables); 2) police women who reside in Jamaica; 3) police women not on suspension or interdictions (i.e. active duty); and 4) police women who were in the Areas or Division during the research period. All participants verbally consent to the study prior to their inclusion in the research exercise. They were informed that their rights in the research including voluntary withdrawal at their convenience.

Data analysis

Data were stored, retrieved and analyzed using the Statistical Packages for the Social Sciences (SPSS) for Windows (Version 21.0). Descriptive statistics were used to report on the demographic characteristics. In addition to the aforementioned, mean values were computed and differences were calculated in order to establish meanings for differences. Multivariate logistic regression technique was conducted to determine variables that explain hair disorders. A *P* value < 5% (2-tailed level) was used to indicate statistical significance in this study.

Instrumentation

Prior to constructing the survey instrument (i.e., questionnaire), the initial researchers. [24] reviewed 'Designing and Conducting Survey Research' by Rea and Parker. [25] The text provided critical insights in the construction of a questionnaire, which was equally aided by a probability sample survey that was carried out by Powell, Bourne and Waller. [26] Based on the information within the research conducted by Rea and Parker [25] and Powell, Bourne and Waller [26] the initial researchers formulated a standardized questionnaire. The instrument comprised of fifty questions, of which seven (7) were open-ended items. The instrument was classified into six sections- Section I (socio-demographic characteristics); Section II (Self-Esteem - Rosenberg Self-Esteem Index. [27]) Section III (Perceived Stress index developed by Cohen and Mermeistein. [28] Section IV (Hairstyle Issues); Section V (Hairstyle Catalogue sets of photos of policewomen in certain hairdos from which participants were expected to select some based on particular questions), and Section VI (Quality of Life - Mezzich and Cohen Subject Version of QoL).

Measures

Self-Esteem. Self-esteem is measured using Rosenberg Self-Esteem Scale. Questions 2, 5, 6, 8 and 9 were reverse coded, and these were summed with questions 1, 3, 4, 7, and 10. Self-esteem is coded based on the Rosenberg's Foundation stipulations. Scoring: SA=3, A=2, D=1, SD=0. Items with an asterisk are reverse scored, that is, SA=0, A=1, D=2, SD=3. Sum the scores for the 10 items. The higher the score, the higher the self esteem. The scores ranged from 0 to 30.[27] The internal consistency for the overall scale was 0.68. A detailed description of the Cronbach alpha score is presented in Table 1.

Table 1: Summary of inter-correlation between items in self-esteem index.

Inter-Item Correlation Matrix										
	Ques6	Ques7	Ques8	Ques9	Ques10	Ques11	Ques12	Ques13	Ques14	Ques15
Ques6	1.000	-.148	.450	.462	-.058	-.130	.463	.036	-.077	.383
Ques7	-.148	1.000	.128	-.063	.484	.633	-.098	.404	.525	-.283
Ques8	.450	.128	1.000	.539	.179	.117	.434	.175	.204	.205
Ques9	.462	-.063	.539	1.000	.093	-.106	.563	.116	-.051	.309
Ques10	-.058	.484	.179	.093	1.000	.448	-.030	.385	.495	-.272
Ques11	-.130	.633	.117	-.106	.448	1.000	-.088	.423	.650	-.274
Ques12	.463	-.098	.434	.563	-.030	-.088	1.000	.064	-.175	.423
Ques13	.036	.404	.175	.116	.385	.423	.064	1.000	.341	-.209
Quesq14	-.077	.525	.204	-.051	.495	.650	-.175	.341	1.000	-.348
Ques15	.383	-.283	.205	.309	-.272	-.274	.423	-.209	-.348	1.000

Stress (or stressor)

Stress is the emotional and physiological response to psychological events. This study employed the perceived stress index developed by Cohen and Mermeistein in 1983 (cited in Calderon et al. [28]). The perceived stress index (or stress index) is a summation of 14 items, with the value being a single score with higher scores indicating greater level of perceived stress experienced by the individual. Prior to the summation of the 14-item index, the following items were reversed coded 19, 20, 21, 22, 24, 25, and 28. The overall Cronbach alpha for the 14-item scale is 0.61, which indicates that it is relative good measure of perceived stress among policewomen in the Jamaica Constabulary Force (JCF). A detailed description of the inter-correlation is presented in Table 2.

Table 2: Detailed description of inter-correlation between the 14-item perceived stress index.

Inter-item Correlation Matrix														
	Ques16	Ques17	Ques18	Ques19	Ques20	Ques21	Ques22	Ques23	Ques24	Ques25	Ques26	Ques27	Ques28	Ques29
Ques16	1.000	0.368	0.506	0.051	-0.028	-0.044	-0.159	0.183	0.010	-0.118	0.391	0.188	-0.084	0.351
Ques17	0.368	1.000	0.340	0.113	-0.086	-0.107	-0.104	0.250	-0.023	-0.201	0.348	-0.036	-0.045	0.373
Ques18	0.506	0.340	1.000	0.078	-0.051	-0.045	-0.159	0.217	0.035	-0.154	0.382	0.242	-0.099	0.482
Ques19	0.051	0.113	0.078	1.000	0.483	0.304	0.179	0.094	0.061	0.200	0.193	0.076	0.096	0.065
Ques20	-0.028	-0.086	-0.051	0.483	1.000	0.371	0.324	0.050	0.049	0.231	0.070	0.086	0.140	-0.058
Ques21	-0.044	-0.107	-0.045	0.304	0.371	1.000	0.397	0.019	0.062	0.413	-0.074	0.116	0.255	-0.111
Ques22	-0.159	-0.104	-0.159	0.179	0.324	0.397	1.000	-0.002	0.039	0.465	-0.125	-0.078	0.257	-0.174
Ques23	0.183	0.250	0.217	0.094	0.050	0.019	-0.002	1.000	0.002	-0.102	0.307	0.127	-0.014	0.338
Ques24	0.010	-0.023	0.035	0.061	0.049	0.062	0.039	0.002	1.000	0.138	0.041	0.058	0.014	-0.067
Ques25	-0.118	-0.201	-0.154	0.200	0.231	0.413	0.465	-0.102	0.138	1.000	-0.119	0.004	0.283	-0.271
Ques26	0.391	0.348	0.382	0.193	0.070	-0.074	-0.125	0.307	0.041	-0.119	1.000	0.085	-0.062	0.445
Ques27	0.188	-0.036	0.242	0.076	0.086	0.116	-0.078	0.127	0.058	0.004	0.085	1.000	0.071	0.225
Ques28	-0.084	-0.045	-0.099	0.096	0.140	0.255	0.257	-0.014	0.014	0.283	-0.062	0.071	1.000	-0.009
Ques29	0.351	0.373	0.482	0.065	-0.058	-0.111	-0.174	0.338	-0.067	-0.271	0.445	0.225	-0.009	1.000

Quality of Life (or wellbeing). This is the general state of physical, social, and psychological wellbeing. QoL Index constitutes 1) physical, 2) psychological, 3) spiritual, 4) personal, 5) community and service, and 6) social and emotional wellbeing, with wellbeing a 10 point Likert Scale measure (ranging from 1=poor to 10=excellent). QoL Index, therefore, is the summation of the 6-item Likert Scale measure, with greater values indicating better wellbeing or QoL. Cronbach alpha for the 6-item Likert Scale measure was 0.837. The inter-correlation among the six items is presented in Table 3.

Table 3: Detailed description of inter-correlation between the 6-item measure of QoL.

Inter-Item Correlation Matrix						
	Ques44	Ques45	Ques46	Ques47	Ques48	Ques49
Ques44	1.000	0.506	0.339	0.364	0.322	0.444
Ques45	0.506	1.000	0.548	0.561	0.406	0.550
Ques46	0.339	0.548	1.000	0.555	0.441	0.459
Ques47	0.364	0.561	0.555	1.000	0.417	0.556
Ques48	0.322	0.406	0.441	0.417	1.000	0.454
Ques49	0.444	0.550	0.459	0.556	0.454	1.000

Findings

Table 4 presents the socio-demographic characteristics of the survey-sampled respondents. The non-response rate for this survey was 7.0 percent (n = 28). Of the sampled respondents (n = 372 policewomen), 17.4 percent indicated that they are in the lower class, 44.8 percent reported middle-middle class and 3.0 percent said upper class. The average length of service of respondents was 9.8 years ± 7.9 years (95% CI: 8.7 – 10.4 years), with the mean age of the sample being 33.2 years ± 8.5 years (95% CI : 32.0 – 33.9 years). The findings indicate that policewomen in the JCF were middle aged, with 22 percent being less than or equal to 25 years old and 76.8 percent were at most 40 years old. Perceived Stress Level (PSL) among the sampled respondents was moderate (27.1 ± 5.6, 95% CI : 26.5 – 27.7 and maximum value being 51), with Self-Esteem being very high (38.9 ± 5.8, 95% CI: 38.4 – 40; maximum = 48) and quality of life being relatively high (39.9 ± 10.1, 95%CI: 38.9 – 41.1; maximum = 60). The psychological component of the QoL scale was very high (7 ± 2.5, 95% CI: 6.7 - 7.5).

Table 4: Socio-demographic characteristics of sampled policewomen, n = 372

Characteristic	n (%)
Rank	
District Constable & Constable	187 (50.3)
Corporal	82 (22.0)
Sergeant	76 (20.4)
Inspector	15 (4.0)
Assistant–to-Superindendent	12 (3.3)
Subjective social class	
Lower (working) class	57 (17.4)
Lower-middle class	89 (27.2)
Middle-middle class	147 (44.8)
Upper-middle class	25 (7.6)
Upper	10 (3.0)
Age, mean ± SD	33.2yrs. ± 8.5 yrs, 95% CI : 32.0 – 33.9 yrs.
Length of service in JCF or ISCF, mean ± SD	9.8yrs. ± 7.9 yrs, 95% CI : 8.7 – 10.4 yrs.
Self-Esteem Index, mean ± SD	38.9 ± 5.8, 95% CI : 38.4 – 40.0
Stress Index, mean ± SD	27.2 ± 5.6, 95% CI : 26.5 – 27.7
QoL Index, mean ± SD	39.1 ± 10.1, 95% CI : 38.9 – 41.1
Psychological Wellbeing Index, mean ± SD	7.2 ± 2.5, 95% CI : 6.9 – 7.5

Figure 1 shows hair dysfunctions of policewomen in the JCF, ISCF and District Constables. Six in every 10 policewomen indicated that they have a hair dysfunction.
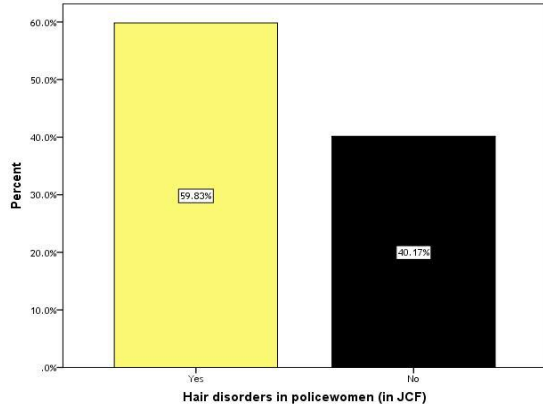
Figure 1.1: Hair disorders among policewomen in JCF, ISCF and District Constables.

Examples of cases of hair disorders among Jamaican policewomen

Figure 1.2: Cases of actual hair disorders in policewomen in the Jamaica Constabulary Force

Twenty one and four-tenth (21.4) percent indicated excellent hair quality (Figure 2).
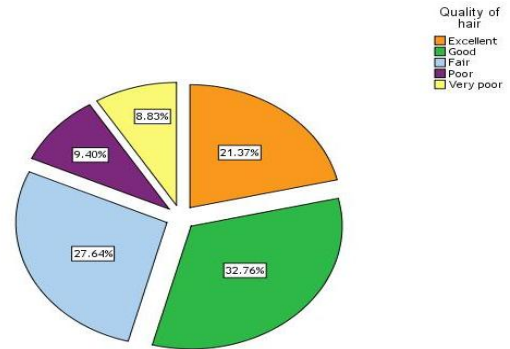

Figure 2: Quality of the individual's hair

Figure 3, depicts the ranks of policewomen by hair dysfunction. Sixty-four percent of constables reported having a hair dysfunction compared to 60.0 percent of inspectors, 56.3 percent of sergeants and 53.3 percent of corporals, with there being no statistical association between rank and hair dysfunctions ($\chi 2 = 3.320$, $P = 0.361$).
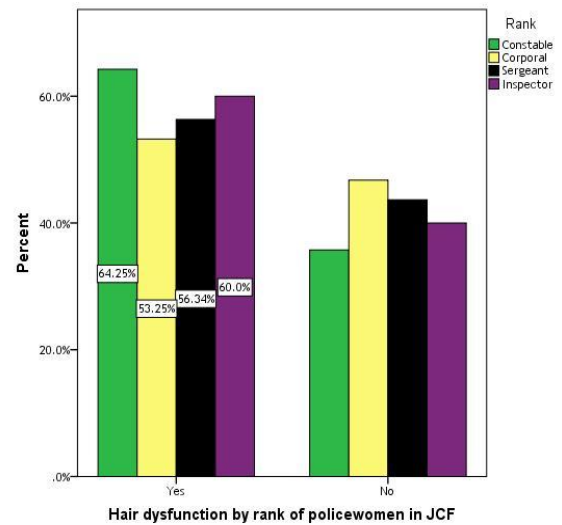
Figure 3: Hair dysfunction by rank of respondents

Figure 4, summarizes the views of policewomen on hair dysfunctions by subjective social class. Seventy-one percent of those in the lower-middle class reported having a hair dysfunction compared to 60.0 percent of in the upper class, 67.8 percent of those in lower-middle class and 52.9 percent of those in middle-middle class, with there being no statistical association between

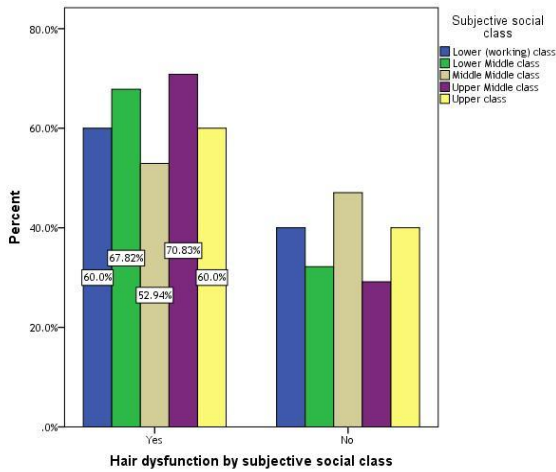subjective social class and hair dysfunctions ($\chi2 = 6.208$, $P = 0.184$).

Figure 4: Hair dysfunction by subjective social class

Policewomen who reported having a hair dysfunction were younger (32.0 years ± 8.0 years) than those who do not have a hair dysfunction (34.7 years ± 8.8 years) – t = -2.773, $P = 0.006$ (Figure 5).
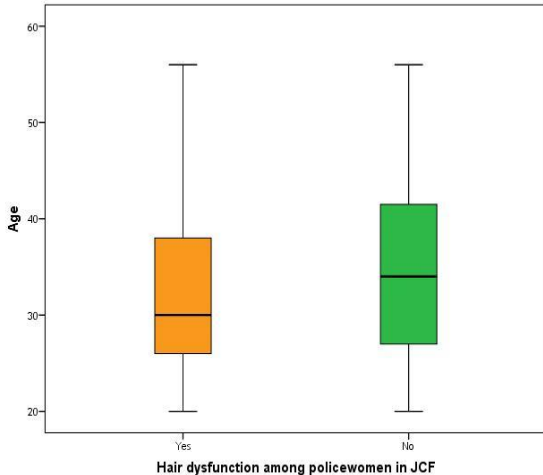

Figure 5: Hair dysfunction by age of respondents

Figure 6, shows hair dysfunction (or not) and the rating a policewomen gave to the quality of her hair. Policewomen who have poor hair quality are more likely to have hair dysfunction than those with better quality hair ($\chi2 = 94.409$, $P < 0.0001$). The findings revealed that all the policewomen with at most poor hair quality reported having a hair dysfunction compared to 75.3 percent of those with fair hair quality.
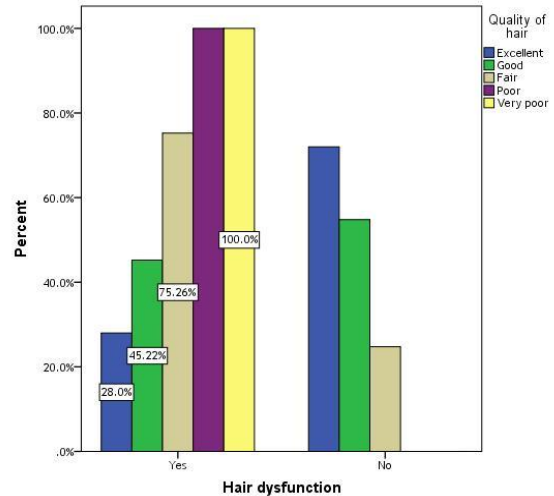

Figure 6: Quality of the individual's hair by hair dysfunction

Table 5, presents an Independent sample t-test of psychological wellbeing and hair dysfunctions of policewomen in the JCF. A policewoman with hair disorder has on average lower psychological wellbeing of 6.91 ± 2.223 (95% CI: 6.60-7.21) compared to those without (7.49 ± 1.861; 95%CI: 7.17-7.80) for those who did not report an hair disorder and these variables are statistically different (t-test = -2.608, $P = 0.010$). This finding provides empirical evidence that hair disorder is negatively influencing the psychological wellbeing of policewomen in Jamaica.

Table 5: Independent sample t-test of hair dysfunction and psychological wellbeing of policewomen in JCF.

Details	Hair dysfunction	Descriptive statistics		
		Mean	Std. Deviation	Std. Error
Psychological wellbeing	Yes (n = 206)	6.91	2.223	0.155
	No (n= 138)	7.49	1.861	0.158
	t-test = -2.608, $P = 0.010$			

Table 6, presents a binary logistic regression of hair dysfunctions and selected variables including quality of hair, perspective of current hairstyle policy for policewomen in the JCF and the disaggregated quality of life index. Of the selected variables, quality of hair and psychological wellbeing emerged as statistically correlated with hair dysfunction, with those factors accounting for 32.2 percent for the variance in hair dysfunctions. The findings revealed a negative statistical correlation between psychological wellbeing and hair dysfunction, suggesting that hair disorder among policewomen is reducing their psychological wellbeing.

Table 6: Binary Logistic Regression of having a hair dysfunction by selected variables

	B	Std. Error	Wald	*P*	OR	95% C.I.	
						Lower	Upper
At least Good Hair Quality	-2.187	0.288	57.657	0.000	0.194	0.064	1.657
Unfavourable Hair Policy	-0.389	0.344	1.276	0.259	0.678	0.345	1.331
Perceived Stress Index	0.004	0.027	0.023	0.880	1.004	0.952	1.059
Self-Esteem Index	-0.031	0.024	1.663	0.197	0.970	0.926	1.016
Physical wellbeing	-0.052	0.066	0.617	0.432	0.949	0.834	1.081
Psychological wellbeing	-0.026	0.092	0.078	0.008	0.968	0.814	1.091
Spiritual wellbeing	0.141	0.079	3.187	0.074	1.151	0.986	1.343
Personal fulfillment	-0.054	0.079	0.463	0.496	0.948	0.812	1.106
Community wellbeing	0.041	0.071	0.338	0.561	1.042	0.906	1.198
Social wellbeing	-0.124	0.088	1.990	0.158	0.884	0.744	1.049
Constant	1.407	1.447	0.945	0.331	4.083		

OR denotes Odds ratio

Model $\chi2$ = 87.245, *P* < 0.0001; -2LL = 343.803; Hosmer and Lemeshow, $\chi2$ = 4.796, *P* = 0.779

R^2 = 0.322

Overall classification = 73.0%, correctly classified those with hair dysfunction = 773.5%

n = 322

Table 7, presents a binary logistic regression of hair dysfunctions and selected variables. The findings revealed that there is a negative correlation between hair dysfunctions and age of policewomen, with age accounting for 5 percent for variance in hair dysfunctions. Based on the odds ratio, a young policewoman is 0.064 times more likely to report a hair dysfunction.

Table 7: Binary Logistic Regression of having hair dysfunctions by selected variables

	B	Std. Error	Wald	*P*	OR	95% C.I.	
						Lower	Upper
Perceived Stress Index	-0.004	0.025	0.026	0.871	0.996	0.948	1.047
Self esteem Index	-0.022	0.025	0.755	0.385	0.978	0.931	1.028
QoL	-0.010	0.014	0.531	0.466	0.990	0.963	1.017
Age	-0.066	0.030	4.921	0.027	0.936	0.883	0.992
Length of service	0.035	0.038	0.850	0.357	1.035	0.962	1.115
Constable	-0.205	0.824	0.062	0.804	0.815	0.162	4.097
Corporal	-0.369	0.739	0.250	0.617	0.691	0.162	2.943
Sergeant	-0.120	0.691	0.030	0.862	0.887	0.229	3.433
Inspector and beyond					1.000		
Middle class	-0.165	0.363	0.206	0.650	0.848	0.416	1.727
Upper class	0.279	0.938	0.089	0.766	1.322	0.210	8.314
Lower class					1.000		
Constant	4.060	1.975	4.225	0.040	58.000		

OR denotes Odds ratio

Model $\chi2$ = 10.47; -2LL = 361.045; Hosmer and Lemeshow, $\chi2$ = 5.902, *P* = 0.658

R^2 = 0.05

Overall classification = 62.7%, correctly classified those with hair dysfunction = 91.9%

DISCUSSION

A part of price humans pay for hairstyles is hair or scalp disorders. The opportunity costs of hair beautification include 1) hair loss, 2) price for treatment, 3) psychological discomfort and 4) lost

production time due to hair treatment. There is extensive literature that has examined hair loss and other hair disorders experienced by humans and some are gender specific. [12-23] but these are from dermatological or medical perspectives. Studies have empirically found that 1) rubber bands should not be used in one's hair; 2) pulling the hair particles tightly with braids will increase the likelihood of traction alopecia; 3) dull and defected scissors can destroy the hair shaft; 4) styling products that hold the hair stiff are likely to damage the hair; 5) the more the hair is left alone, the healthier it will be - hence relaxing the hair damages it; 6) colouring the hair destroys the hair shaft, and 7) permanent waving or curling, if tight, damages the hair shaft. [29, 30]

The hair and scalp disorder discourse cover areas such as alopecia; Telogen effluvium; Hair breakage; Central centrifugal cicatricial alopecia; Trichotillomania; cicatricial alopecia; Female pattern hair loss; Hyperandrogenism [23, 31-34] Emanating from hairstyles and hair ornaments worn by women are hair loss, other disorders and scalp dysfunctions. Despite the reality of hair and scalp disorders, women will continue to style their hair because of its association with beauty, power and social status. This makes a discourse on hairstyle-professionalism equally about hair disorders as a professional hair look.

In this study, 3 in every 5 policewomen in Jamaica were experiencing some kind of hair disorders. These included thinning of hairlines, hair breakage to various types of alopecia. Clearly there is a hair disorder pandemic faced by many policewomen in Jamaica which has gone unnoticed for decades, which is equally the same across the different ranks. The discipline of public health to date has not been examining the issue of hair and hair disorders; but with at least 1 out 2 or 3 in 5

policewomen in Jamaica experiencing hair disorders, there is no denial that this a public health matter that requires urgent intervention. Why should public health concern itself with hairstyles among women, particularly policewomen?

Many of the hairstyles having to do with hair pulling, bleaching of the hair and tightened hairlines oftentimes result in artefactual damaging of the hair shaft. [35] Outside of the issues identified by Farrell, Sinclair and Dawber [35] we have excluded 1) the psychological distress which results from hairstyle choices worn by women, 2) the quality of life influence of hairstyle choices and 3) any self-esteem issue that arises because of choiced hairstyles worn by women. We will refer to those as the *price-effect of beauty*. The price-effect of beauty does not incorporate into its computation the loss of future beautification because of current choices and decisions of the individual. The choice of hair design and beauty frequently overlooks the hair growth, destruction of hair cells, which hairdos damage hair and those that do not, and the ones that account for hair and scalp disorders. The price-effect of beauty becomes expensive when the individual is seeking to enhance beauty yet neglects the anatomy of the hair (or hair cycle) and what goes best with it. The resultant effect of poor hair choice and the expense of such decisions on the hair shaft mean that management of lost hair becomes quite expensive as the individual seek to reclaim social consciousness of societal standard of beauty.

The present findings revealed that Jamaican policewomen with hair disorder has on average lower psychological wellbeing of 6.91 ± 2.223 (95% CI: 6.60-7.21) compared to those who did not report a hair disorder ((7.49 ± 1.861; 95%CI: 7.17-7.80; t-test = -2.608, *P* = 0.010). The issue of professionalism for policewomen is

account for reduced psychological wellbeing among those experiencing hair dysfunction, which has been overlooked by police managers and public health practitioners. While the issue of hairstyle choices may appear simple, the matter is more complex than the actual look to cost, health care utilizations, psychological discomfort, treatment and lowered productivity. Therefore, hair disorder must be considered as part of the health discourse. From the current findings that hair disorder influences psychological wellbeing, hairstyle choices of women must now included in the ambits of health discourse. Being that hair quality is correlated with hair disorders and that 46% of policewomen have at most fair hair quality, it follows that psychological stressors of the hair will continue to affect close to one half of them. With the high prevalence of hair disorders and those with at most fair hair quality among policewomen in Jamaica, the matter must be included in public health as well as the general health discourses.

CONCLUSION

The price of beauty (i.e., **price-effect of beauty)** among policewomen in Jamaica is now a public health concern. The hair disorder is in an epidemic proportion in the police force as 3 in 5 policewomen require public health intervention because the 1) prevalence of cases, 2) effect on wellbeing and the 3) impending cost to the society. This pandemic of hairstyle choices is a young policewoman phenomenon and with hairstyles choices must be the high on the agenda of young policewomen, it denotes that the price-effect of beauty must be the concern of public health practitioners and general health researchers from here onwards.

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