

# Affective States and Racial Identity among African-American Women with Trichotillomania

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Affective correlates of hair pulling were investigated in a sample of 43 African-American women with trichotillomania. The relationship among affective correlates and dimensions of racial identity was also examined. Via phone interview, participants completed the hair-pulling survey on which they rated the intensity of 10 different affective states across three different points in the hair-pulling episode (before, during and after). Participants also completed the Multidimensional Inventory of Racial Identity, which assesses racial identity across the dimensions of centrality, regard and ideology. Univariate analyses identified the feelings of being bored, happy, anxious, guilty and relieved as reflecting a time difference. Negative correlations were found among the racial identity dimension of private regard and the affective correlates of happy and relief that were experienced during and after pulling. Negative correlations were found between the racial identity dimension of humanist ideology and relieved affect as well as humanist ideology and relieved affect during a pulling episode. In light of the results, the importance of understanding and assessing cultural factors in the affective experience of African-American women with trichotillomania is discussed.

**Key words:** trichotillomania ■ chronic hair pulling ■ affective correlates ■ African Americans ■ racial identity

## INTRODUCTION

Trichotillomania is defined as the recurrent pulling out of one's own hair that results in noticeable hair loss.<sup>1</sup> Hair pulling may occur sporadically throughout the day or in sustained periods that may last hours. For some individuals, periods of stress seem to facilitate the hair pulling, whereas for others, the behavior occurs most frequently during periods of relaxation or distraction. Little is known about the prevalence rates of trichotillomania in the general population. Studies with college students estimate that 2.5% of that population has engaged in clinically significant chronic hair pulling.<sup>2</sup> The vast majority of research on trichotillomania appears to focus on Caucasians.<sup>2,3</sup>

Over the past several years, a small body of literature has begun to emerge on trichotillomania among African Americans. Exploring the behavior from a cultural framework, this research suggests that the physical properties and emotional aspects of African-American hair as well as a dimension of the pullers' racial identity may play a significant role in understanding and treating the disorder in this population.<sup>3-5</sup> For example, Neal-Barnett and colleagues<sup>5</sup> found that engaging in chronic hair pulling appears to be associated with the racial identity dimension of private regard, defined as the extent to which an individual feels positively or negatively toward the African-American community, as well as how the individual feels about being a member of this community. Based on their results, the authors hypothesized that engaging in chronic hair pulling may represent to the hair puller and to other African Americans a behavior that is counter to their conceptualization of what it means to be black. That realization may in turn affect how the puller regards herself.<sup>5</sup> To the best of the authors' knowledge, research on nonblacks has not explored issues of ethnic or gender role identity in the perception and manifestation of chronic hair pulling.

According to the *Diagnostic and Statistical Manual for Mental Disorders, Fourth Edition Text Revision (DSM-IV-TR)*,<sup>6</sup> to receive a trichotillomania diagnosis, certain affective states must be present prior to and dur-

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ing the hair-pulling episode.<sup>6</sup> The affective state experienced prior to pulling is tension. During an actual pulling episode, an individual may experience feelings of gratification, pleasure or relief.<sup>6</sup> Research has questioned whether the DSM affective criteria accurately capture the experiential component of this disorder.<sup>7,8</sup> Data indicate that some patients do not experience affect prior to or during hair pulling.<sup>9-11</sup> Furthermore, many patients who do report an affective state do not report experiencing the affect with every hair-pulling episode.<sup>9</sup> For these reasons, the majority of studies on trichotillomania have examined the disorder using its general rather than its DSM-IV definition.<sup>7</sup> In accordance with most of the research on this subject, within this paper, the term trichotillomania will be used to refer to chronic hair pulling resulting in visible hair loss.

Hair, for African-American women, is an emotional issue. The physical properties, the act of hair preparation and the emphasis placed on hair in the black community appear to engender, at an early age, various affective responses in African-American females.<sup>12-15</sup> Previous research has already shown an association among racial identity and the act of repetitive hair pulling.<sup>5</sup> Based on this finding and the literature on the emotional components of black hair, the possibility exists that for African-American females, the affect experienced in a hair-pulling episode may also be influenced by one's racial identity. Specifically, high levels of private regard may be associated with more negative affect being experienced during and after the pulling behavior.

In this paper, we examine the affective states retrospectively reported by African-American female chronic hair pullers in relation to what was experienced before, during and after a hair-pulling episode and how dimensions of racial identity may be associated with affective experience. To the best of our knowledge, this study appears to be the first to examine these variables in this population.

## METHOD

### Participants

The participants were 43 women who self-identi-

fied as African-American. Thirty-eight women had two African-American parents and five women had one African-American parent but still self-identified themselves as African-American. Women ranged in age from 19–52. The mean age of participants was 35.3. Sixty-six percent of the population had a college degree. Overall, this was a highly educated sample.

Women were recruited via hair salons, announcements posted on the first author's website (<http://dept.kent.edu/psychology/facultybios/neal-barnett.htm>), the Trichotillomania Learning Center website ([www.trich.org](http://www.trich.org)) and Sistaz with Trich, an online list-serve for African-American women with trichotillomania. Additional demographics on the sample are contained in an earlier article.<sup>5</sup>

## MATERIALS

### Measures

**Hair-Pulling Survey (HPS).**<sup>16</sup> The HPS is designed to assess the incidence and phenomenology of hair pulling in nonclinical populations. Specifically, the survey assesses acknowledgement of pulling behavior, severity of the pulling behavior as well as affective states experienced before, during and after a hair-pulling episode. Affective states assessed in terms of experience and intensity on the HPS are bored, happy, sad, angry, clam, anxious, guilty, tense, relieved and indifferent.

**NIMH Trichotillomania Symptom Severity Scale and Trichotillomania Impairment Scale (NIMH-TSS/TIS).**<sup>17</sup> The TSS comprised six items assessing hair-pulling frequency during yesterday and the past week. Ratings are obtained for urge intensity/resistance, subjective distress and interference with daily life. Severity is rated on a scale of 0 (none) to 5 (most severe). The TIS is an 11-point scale based on severity of alopecia, time spent pulling, time spent concealing damage, ability to control pulling, interference and incapacitation. The impairment score can be 0 (absent), 1–3 (minimal), 4–6 (moderate) or 7–11 (severe). Information on psychometric properties of the NIMH-TSS and TIS are limited. Interrater reliability scores for a sample

Table 1. Mean affective state ratings across time

Affective State	Before		During		After	
	Mean	SD	Mean	SD	Mean	SD
Bored	0.875 <sup>a,b</sup>	0.334	0.725 <sup>a,c</sup>	0.452	0.500 <sup>b,c</sup>	0.506
Happy	0.625 <sup>a</sup>	0.490	0.575 <sup>b</sup>	0.500	0.450 <sup>a,b</sup>	0.504
Anxious	0.975 <sup>a</sup>	0.158	0.950	0.221	0.875 <sup>a</sup>	0.000
Guilty	0.825 <sup>a</sup>	0.850	0.950	0.221	1.00 <sup>a</sup>	0.000
Relief	0.625 <sup>a</sup>	0.490	0.875 <sup>a</sup>	0.335	0.800	0.405

\* Like letters = mean difference between time points significant at  $p < 0.05$

of seven patients range from 0.78–0.81. Due to the nature of this study (phone interview), the TIS was modified. The original scale contains four levels of impairment. Each level contains a description of criteria with a numerical range. In the modified version, the descriptors were listed individually under each range. After completion of each interview, the interviewer reviewed all data collected and completed the TIS by placing a checkmark next to each descriptor endorsed by the participant. The checkmarks found in the highest possible level of impairment were then counted. The number of criteria items checked under that level determined the impairment score on a scale of 0–11. Interviewers' ratings were then checked by an advanced doctoral student in clinical psychology.

**The Perceived Racism Scale.**<sup>18</sup> The Perceived Racism Scale is a 55-item scale that assesses the experience of racism among African Americans in a multidimensional manner. The survey consists of five subscales: exposure to racist events and situations at work, exposure to racist events and situations at school, exposure to racist events and situations in the general public, emotional coping response to racism and behavioral coping response to racism. Coefficient alphas for the instruments subscale range from 0.88–0.96. Test-retest reliability for subscales of frequency of exposure range from 0.71–0.80.

**Multidimensional Inventory of Black Identity (MIBI).**<sup>19</sup> The MIBI is a 56-item scale that measures racial identity along three dimensions: centrality, regard and ideology. The Centrality scale ( $\alpha=0.77$ )<sup>20</sup> consists of eight items measuring the extent to which being African-American is central to the respondents' definition of themselves. The 36-item Ideology scale consists of four subscales (nine items each) that measure attitudes about the way blacks should act. The four subscales include the Assimilation ( $\alpha=0.73$ ), Nationalist ( $\alpha=0.79$ ), Humanist ( $\alpha=0.70$ ) and Minority ( $\alpha=0.76$ ) subscales.<sup>20</sup> The revised Regard scale consists of two six-item subscales—public regard refers to the extent to which individuals feel that others view African Americans positively or negatively ( $\alpha=0.78$ ), and private regard refers to the extent to which an individual feels positively or negatively toward the African-American community, as well as how she/he feels about being a member of this community ( $\alpha=0.78$ ).<sup>20</sup> Participants are asked to respond regarding the extent to which they agree with the items using a seven-point Likert scale. Mean scores for each scale are reported.

**The Symptom Checklist-Revised (SCL-90-R).**<sup>21</sup> The SCL-90-R is a 90-item self-report symptom inventory designed primarily to reflect the psychological symptom patterns of community,

psychiatric and outpatient samples. Each item is rated on a five-point scale of distress. The inventory consists of nine primary symptom dimensions: somatization, obsessive-compulsive, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation and psychotism. The SCL-90-R consists also of three global indices of distress: global severity indices, positive symptom distress index and positive symptom total. The instrument is reliable and valid and has been normed on psychiatric inpatients, outpatients, medical patients and nonpatient adult normal controls. Internal consistency for the obsessive-compulsive dimension is 0.86 and test-retest reliability is also 0.86. Internal consistency for the phobic anxiety scale is 0.89, and test-retest reliability ranges from 0.77–0.90.

**Cultural Hair Messages and Practices.** A series of eight open-ended questions assembled by the Kent State Trichotillomania Project researchers was employed.

Of interest to this study's thesis are participants' responses to the Hair-Pulling Survey (HPS)<sup>17</sup> and the Multidimensional Inventory of Black Identity (MIBI).<sup>19</sup>

## Procedure

After reading about the study on the Internet or at their hair salon, women contacted the first author and expressed a desire to participate. Women were then contacted by one of the project's interviewers who explained the study and asked if they still wished to participate. All women who made initial contact indicated yes. A phone interview was then scheduled at a time that was convenient for the participants. Women were interviewed by either an African-American female doctoral student in clinical psychology, or a Macedonian female doctoral student in counseling trained in the criteria for the administration of all instruments. In accordance with IRB guidelines, at the beginning of the interview, informed assent was obtained. The entire interview ranged from 90 minutes to 2 hours. Women received a \$35 honorarium, which they could tithe to a church or charity for participation in the study. All expressed great reluctance to personally accept money for helping other black women.

## RESULTS

Affects perceived over time (before, while and after hair pulling), as measured by the HPS, were analyzed using repeated measures MANOVA and ANOVA. MANOVA yielded a significant time effect ( $p \leq 0.0005$ ). Univariate analyses identified the feelings of bored, happy, anxious, guilty and relief reflecting a time difference. Means for those affective states are reported in Table 1.

Posthoc comparisons using the least significant

difference approach (LSD) evidenced negative linear functions ( $p \leq 0.05$ ) for being bored, happy and anxious—that is, these feelings were lessened after hair pulling. Feeling guilty and relieved evidenced ( $p \leq 0.05$ ) a positive linear trend, with feelings being greater after hair pulling than before.

### Private Regard

Private regard is the extent to which an individual feels positively or negatively toward the African-American community as well as how the individual feels about being a member of this community.<sup>20</sup> Pearson correlations were performed for each of the five affective states experienced before, during and after a hair-pulling episode and the three MIBI dimensions. A significant negative correlation was found between experiencing a happy affect before pulling and the MIBI dimension of private regard ( $r = -0.494$ ,  $p = 0.002$ , two-tailed). Individuals with high private regard appeared less likely to endorse experiencing a happy affect before a pulling episode, whereas women with low private regard appeared more likely to endorse experiencing feeling happy. Significant negative correlations were also found between the relieved affective state and private regard before ( $r = -0.416$ ,  $p = 0.010$ , two-tailed), during ( $r = -0.371$ ,  $p = 0.024$ , two-tailed) and after ( $r = -0.454$ ,  $p = 0.005$ , two-tailed) a pulling episode. Women with high private regard appeared less likely to endorse relieved affect, whereas women with low private regard appeared more likely to endorse relieved affect before, during and after a hair-pulling episode. Negative correlations were also found for the affective state of anxiety during a hair-pulling episode ( $r = -0.400$ ,  $p = 0.014$ , two-tailed). Women with high private regard appeared less likely to experience the affective state while pulling, whereas women with low private regard appeared more likely to endorse anxiety.

Although not an affective state statistically associated with the time difference, significant negative correlations were found between private regard and experiencing calm affect before ( $r = -0.610$ ,  $p < 0.001$ , two-tailed), during ( $r = -0.369$ ,  $p = 0.035$ , two-tailed) and after ( $r = -0.429$ ,  $p = 0.008$ , two-tailed) a pulling episode. Women with high private regard appeared less likely to endorse calm affect before, during and after a pulling episode, whereas women with low private regard appeared more likely to experience calm before, during and after a pulling episode.

### Centrality

Interestingly, a negative correlation was also found between calm affect during a pulling episode and the MIBI dimension of centrality ( $r = -0.365$ ,  $p = 0.028$ , two-tailed). Centrality is the degree to which being

African-American is central to one's definition of one's self.<sup>20</sup> Women with high centrality appeared less likely to endorse calm affect during pulling, whereas women with low centrality appeared more likely to endorse calm affect during the pulling phase.

### Ideology

In racial identity theory, ideology is defined as what being African-American means in terms of beliefs and behaviors.<sup>20</sup> The ideological views measured on the MIBI are assimilationist, humanist, minority and nationalist. An assimilationist ideology emphasizes the similarities between African Americans and mainstream. A humanist view highlights the similarities among individuals of all races, whereas the minority ideology emphasizes the similarities between African Americans and other minority groups. The nationalist view embodies the importance and uniqueness of being African-American. A negative correlation was found between assimilation and the affective state of happy before a pulling episode ( $r = -0.434$ ,  $p = 0.007$ , two-tailed). Women who endorsed higher levels of an assimilation ideology appeared less likely to experience happy feelings before pulling, whereas women who endorsed lower levels of assimilation appeared more likely to experience the affective state. A positive correlation was found between minority ideology and experiencing a happy affect when pulling ( $r = 0.404$ ,  $p = 0.013$ , two-tailed). Women who endorsed a minority ideology appeared more likely to endorse a happy affect during a pulling episode. A negative correlation was found between the humanistic ideology and a relieved affect during a pulling episode ( $r = -0.359$ ,  $p = 0.029$ , two-tailed). Women who endorsed a higher level of humanistic ideology were less likely to experience relief during pulling, whereas women who endorsed a lower level of humanistic ideology were more likely to experience the affect after a pulling episode. A negative correlation was found among assimilation and relieved affect ( $r = -0.404$ ,  $p = 0.013$ , two-tailed). Women endorsing high levels of assimilation appeared less likely to experience relief after a pulling episode whereas women endorsing low levels of assimilation appeared more likely to experience relief affect.

Once again, although not an affective state associated with the time difference, significant negative correlations were found between ideology and the calm affective state. Negative correlations were found for the assimilation ideology and calm affect before ( $r = -0.354$ ,  $p = 0.032$ , two-tailed) and during ( $r = -0.328$ ,  $p = 0.047$ , two-tailed) a pulling episode. Women who highly endorsed an assimilation ideology appeared less likely to report a calm affect, whereas women with a low endorsement of assimilation

lation ideology were more likely to report the affect before and during a pulling episode. A positive correlation was found between minority ideology and calm affect before a pulling episode ( $r=0.328$ ,  $p=0.048$ , two-tailed). Women who endorsed a minority ideology appeared more likely to have experienced calm affect before a pulling episode.

## DISCUSSION

To the best of our knowledge, this study is the first to examine the retrospectively self-reported affective experience of African-American women with trichotillomania before, during and after a pulling episode. Analyses revealed the anxious, guilty, relieved, bored and happy affective states to contribute most to the time difference evidenced. At certain points in the pulling episode, the racial identity dimensions of private regard, centrality and ideology appeared to be associated with the affect experienced.

In this study, private regard appears related to the level of affect experienced during and after a pulling experience. It is less likely that a female who has high positive feelings about being an African American will experience happiness, relief or calm during and after engaging in hair pulling, a behavior that previous research<sup>5</sup> has demonstrated is not considered "black" behavior. Previous research has also suggested that for some African-American women, engaging in hair pulling lowers one's private regard.<sup>5</sup> This, in turn, may lead some African-American women to become resigned to chronic hair pulling. The resignation may result in higher levels of happiness, relief and calm experienced during and after a pulling episode.

Resignation may also explain why women with lower private regard were more likely to endorse a calm affect before the pulling episode. These women may have become so resigned to pulling that they exhibit a calm, almost detached air, before the onset of the episode.

Correlations between ideology and affect highlight the importance of examining trichotillomania and racial identity from a dimensional view. The negative correlations between the assimilationist ideology and the relief affect may reflect a belief that within mainstream culture, chronic hair pulling is unacceptable. Women who endorse the humanist view may extend this belief that hair pulling is unacceptable to all humans. As stated above, the positive correlation between minority ideology and a happy affect may reflect an air of resignation. Oppression plays a central role in the minority ideology. Internalized oppression can lead to a defeatist attitude. Thus, similar to the women with lower levels of private regard, during the hair-pulling episode, women who endorse a minority ideology may just be glad

the episode is almost over. This resigned attitude may also explain the higher levels of calm endorsed before a pulling episode by those who endorse the minority ideology.

Overall, this study sheds light on the role racial identity may play in the affective experience of African-American females with trichotillomania. Replicating this research with larger clinical and nonclinical samples is encouraged. Understanding the role cultural factors play in the manifestation of this disorder has significant implications for the treatment of the disorder in African Americans.

## REFERENCES

- Christenson GAH, MacKenzie TB. Clinical presentation and treatment of trichotillomania. *Directions in Psychiatry*. 1994;14:1-7.
- Christenson GA, Mansueto C. Trichotillomania: Descriptive characteristics and phenomenology. In: Stein DJ, Christenson GA, Hollander E, eds. *Trichotillomania*. Washington, DC: American Psychiatric Press, Inc; 1999:1-42.
- Neal-Barnett AM, Ward-Brown BJ, Mitchell M, et al. Hair pulling in African Americans: only your hairdresser knows for sure. *Cultur Divers Ethnic Minor Psychol*. 2001;6:352-362.
- McCarley NG, Spirison CL, Ceminsky JL. Hair pulling behavior reported by African American and non-African American college students. *Journal of Psychopathology & Behavioral Assessment*. 2002;24:139-144.
- Neal-Barnett AM, Statom D, Stadulis R. Don't touch your hair: chronic hair pulling, racial identity and African American women. *The Counseling Psychologist*. In press.
- American Psychiatric Association. *Diagnostic and statistical manual of mental health disorders*, 4th ed, text revision. Washington, DC: 2000;663-664.
- Christenson GA, O'Sullivan R. Trichotillomania: rational treatment options. *CNS Drugs*. 1996;6:23-34.
- Diefenbach GJ, Mouton-Odum S, Stanley MA. Affective correlates of trichotillomania. *Behav Res Ther*. 2002;40:1305-1315.
- Christenson GA, Mackenzie TB, Mitchell JE. Characteristics of 60 adult hair pullers. *Am J Psychiatry*. 1991;148:365-370.
- Bundles AP. *On her own ground*. New York, NY: Scribner; 2001.
- Byrd AD, Tharp LL. *Hair story: Unlocking the roots of Black hair in America*. New York: St. Martin's Press; 2002.
- Lake O. *Blue veins and kinky hair*. Westport, CT: Praeger; 2003;81-101.
- Morrow W. *Four hundred years without a comb*. Black Press of San Diego; 1973.
- Neal AM, Wilson ML. The role of skin color and features in the Black community: Implications for Black women and therapy. *Clin Psychol Rev*. 1989;9:323-333.
- Rooks N. *Hair raising*. New Brunswick, NJ: Rutgers University Press; 1996.
- Stanley MA, Borden JW, Mouton SG, et al. Nonclinical hair pulling: affective correlates and comparison with clinical samples. *Behav Res Ther*. 1995;33:179-186.
- Swedo S, Leonard HL, Rapoport J, et al. A double-blind comparison of clomipramine and desipramine in the treatment of trichotillomania (hair pulling). *N Engl J Med*. 1989;321:497-501.
- McNeilly MD, Anderson NB, Armstead C, et al. The perceived racism scale: a multidimensional assessment of the experience of White racism among African Americans. *Ethn Dis*. 1997;6:154-166.
- Sellers RM, Smith MA, Shelton JN, et al. Multidimensional model of racial identity: a reconceptualization of African American racial identity. *Pers Soc Psychol Rev*. 1998;2:18-39.
- African American Racial Identity Research Lab. [www.lsa.umich.edu/aari/mibi.htm](http://www.lsa.umich.edu/aari/mibi.htm). Accessed 04/08/04.
- Derogatis LR. *SCL-90-R®: Administration, scoring and procedures manual*. Minneapolis MN: National Computer Systems Inc.; 1994. ■