Title: The Relationship Between Patient-Reported Severity of Hair Loss and Health-Related Quality of Life and Treatment Patterns Among Patients with Alopecia Areata

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Supplemental Table 1. Sociodemographic Characteristics

Participant Sociodemographic Characteristic	Total (N=1327)
Age, years, *Mean (SD) [range]*	39.7 (12.3) [18 – 84]
Gender, n (%)	
Female	775 (58.4%)
Racial Background/Ethnicity, n %	
Asian, non-Hispanic	27 (2.0 %)
Black, non-Hispanic	341 (25.7 %)
Hispanic only	42 (3.2 %)
Multi-racial	156 (11.8 %)
Other	57 (4.3 %)
White, non-Hispanic	699 (52.7 %)
Prefer not to say	5 (0.4 %)
Relationship Status, n (%)	
Single	261 (19.7 %)
Married	928 (69.9 %)
Domestic Partnership, unmarried	56 (4.2 %)
Separated or Divorced	70 (5.3 %)
Widowed	12 (0.9 %)
Highest Education Level, n (%)	
Less than high school	15 (1.13 %)
Secondary/high school/GED	147 (11.1 %)
Associate degree, technical, or trade school	376 (28.3 %)
College/university degree (e.g., BA, BS)	591 (44.5 %)
Post-graduate degree (e.g., MA, MBA, PhD)	198 (14.9 %)
Type of Health Insurance[1], n (%)	
Employer-provided insurance	660 (49.7 %)
Self-provided insurance (including Obama Care)	142(10.7 %)
Veterans Affairs/Military healthcare	21 (1.6 %)
Medicare	339 (25.6 %)
Medicaid	90 (6.8 %)
None (uninsured)	75 (5.7 %)

Supplemental Table 2. Current Alopecia Non-Scalp Sign/Symptoms by Scalp Hair Loss Severity

	Current Scalp Hair Loss					χ²	P-Value
	No missing hair (0%) (n = 34)	A limited area (1-20%) (n = 528)	A moderate area (21-49%) (n = 347)	A large area (50-94%) (n = 135)	Nearly all or all (95-100%) (n = 283)		
Eyebrow: current, n (%)							
I have full eyebrows on each eye	23 (67.7%)	205 (38.8%)	87 (25.1%)	23 (17.0%)	15 (5.3%)	744.1	<0.001
I have a minimal gap(s) or a minimal amount of thinning in at least one of my eyebrows	11 (32.4%)	251 (47.5%)	175 (50.4%)	42 (31.1%)	36 (12.7%)		
I have a large gap(s) or a large amount of thinning in at least one of my eyebrows	0 (0.0%)	51 (9.7%)	69 (19.9%)	42 (31.1%)	23 (8.1%)		
I have no or barely any eyebrow hairs	0 (0.0%)	21 (4.0%)	16 (4.6%)	28 (20.7%)	209 (73.9%)		
Upper and Lower Eyelashes: current, n (%)							
I have full eyelashes on each eyelid	26 (76.5%)	218 (41.3%)	110 (31.7%)	43 (31.9%)	34 (12.0%)	501.0	<0.001
I have a minimal gap or minimal gaps along the eyelids	4 (11.8%)	221 (41.9%)	141 (40.6%)	42 (31.1%)	44 (15.6%)		
I have a large gap or large gaps along the eyelids	4 (11.8%)	64 (12.1%)	67 (19.3%)	26 (19.3%)	26 (9.2%)		
I have no or barely any eyelash hair	0 (0.0%)	25 (4.7%)	29 (8.4%)	24 (17.8%)	179 (63.3%)		
Fingernails and Toenails: current, n (%)							
Nails are not at all damaged	27 (79.4%)	300 (56.8%)	134 (38.6%)	60 (44.4%)	110 (38.9%)	95.7	<0.001
At least one nail is a little damaged	3 (8.8%)	164 (31.1%)	127 (36.6%)	34 (25.2%)	79 (27.9%)		
At least one nail is moderately damaged	4 (11.8%)	57 (10.8%)	76 (21.9%)	31 (23.0%)	72 (25.4%)		
At least one nail is very damaged, or you have lost at least one nail	0 (0.0%)	7 (1.3%)	10 (2.9%)	10 (7.4%)	22 (7.8%)		
Eye Irritation: in the past 7 days, n (%)							
My eyes have not been irritated	23 (67.7%)	275 (52.1%)	138 (39.8%)	33 (24.4%)	119 (42.1%)	66.3	<0.001
My eyes have been a little irritated	8 (23.5%)	181 (34.3%)	133 (38.3%)	63 (46.7%)	94 (33.2%)		
My eyes have been moderately irritated	3 (8.8%)	67 (12.7%)	68 (19.6%)	29 (21.5%)	57 (20.1%)		
My eyes have been severely irritated	0 (0.0%)	5 (1.0%)	8 (2.3%)	10 (7.4%)	13 (4.6%)		

Supplemental Table 3. Duration of Alopecia Areata and History of Hair Loss by Current Scalp Hair Loss

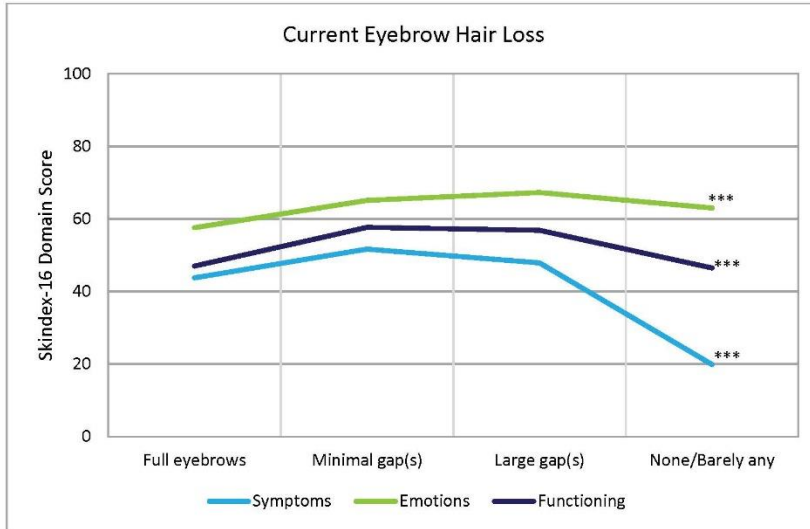|	Current Scalp Hair Loss					Overall F-value	P-Value
	No missing hair (0%) (n = 34)	A limited area (1-20%) (n = 528)	A moderate area (21-49%) (n = 347)	A large area (50-94%) (n = 135)	Nearly all or all (95-100%) (n = 283)		
Duration of Alopecia Areata, years							
Mean (SD) [range]	7.1 ± 6.2 [1 – 24.3]	5.0 ± 6.9 [0.2 – 54.1]	7.3 ± 9.4 [0.4 – 52.2]	14.4 ± 12.0 [0.9 – 53.7]	22.9 ± 13.9 [0.3 – 67.4]	165.8	<0.001
Number of Episodes of Hair Loss[2]	n = 34	n = 526	n = 341	n = 134	n = 276		
Mean (SD) [range]	1.8 ± 1.3[a] [1 - 8]	3.5 ± 5.6[a] [0 - 60]	4.2 ± 5.3[ab] [0 - 50]	7.4 ± 9.3[c] [0 - 50]	5.4 ± 8.5[b] [0 - 60]	12.3	<0.001
Since the time you first started experiencing symptoms of alopecia areata, how would you describe your hair loss over time?, n (%)						χ^2	P-Value
Improving	23 (67.7%)	140 (26.5%)	35 (10.1%)	8 (5.9%)	8 (2.8%)	485.5	<0.001
Stable/no changes	4 (11.8%)	169 (32.0%)	83 (23.9%)	8 (5.9%)	47 (16.6%)		
Worsening slowly	2 (5.9%)	126 (23.9%)	139 (40.1%)	52 (38.5%)	52 (18.4%)		
Worsening rapidly	1 (2.9%)	29 (5.5%)	15 (4.3%)	18 (13.3%)	116 (41.0%)		
Unpredictable hair loss and regrowth	3 (8.8%)	62 (11.7%)	74 (21.3%)	49 (36.3%)	53 (18.7%)		
Not Sure	1 (2.9%)	2 (0.4%)	1 (0.3%)	0 (0.0%)	7 (2.5%)		
Current Hair Loss Lasted for, n (%)						χ^2	P-Value
Less than 1 year	20 (58.8%)	248 (47.0%)	90 (25.9%)	32 (23.7%)	27 (9.5%)	509.6	<0.001
1 – 4 years	13 (38.2%)	247 (46.8%)	182 (52.5%)	60 (44.4%)	39 (13.8%)		
More than 4 years	1 (2.9%)	33 (6.3%)	75 (21.6%)	43 (31.9%)	217 (76.7%)		

[1]Pairwise comparisons between means were performed using Tukey's test adjusting for multiple comparisons at p <0.05. Means followed by a common letter are not significantly different.

[2]Analysis performed using Episodes of Hair Loss variable trimmed to exclude observations with reported values of 61 episodes or more (n = 1311).

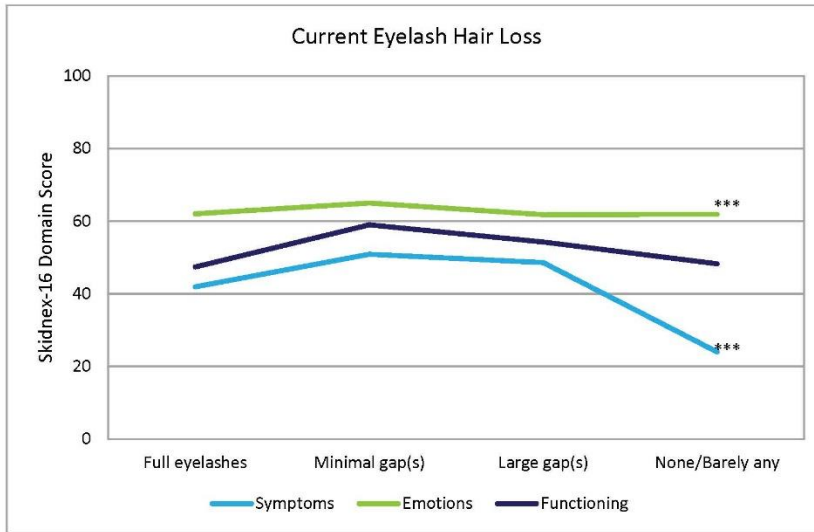**Supplemental Table 4. Treatment Experience by Current Scalp Hair Loss**

Alopecia Areata Treatment	Ever Used n (%)	Currently on n (%)[1]	Current Scalp Hair Loss				
			No missing hair (0%)	A limited area (1-20%)	A moderate area (21-49%)	A large area (50-94%)	Nearly all or all (95-100%)
Oral Treatments	364 (33.8%)	208 (24.3%)	4 (1.9%)	97 (46.6%)	67 (32.2%)	12 (5.8%)	28 (13.5%)
Topical Treatments (applied to the skin)	624 (57.9%)	230 (26.9%)	2 (0.9%)	90 (39.1%)	88 (38.3%)	34 (14.8%)	16 (7.0%)
Injection Treatments	445 (41.3%)	113 (13.2%)	3 (2.7%)	61 (54.0%)	35 (31.0%)	7 (6.2%)	7 (6.2%)
Phototherapy (e.g. PUVA, psoralen plus UVB)	165 (15.3%)	94 (11.0%)	2 (2.1%)	49 (52.1%)	36 (38.3%)	7 (7.5%)	0 (0.0%)
Laser Therapy	137 (12.7%)	74 (8.7%)	1 (1.4%)	42 (56.8%)	26 (35.1%)	5 (6.8%)	0 (0.0%)
Platelet-Rich Plasma (PRP)	44 (4.1%)	21 (2.5%)	0 (0.0%)	10 (47.6%)	10 (47.6%)	1 (4.8%)	0 (0.0%)
Dietary changes or supplements	354 (32.8%)	228 (26.7%)	3 (1.3%)	86 (37.7%)	76 (33.3%)	33 (14.5%)	30 (13.2%)
Acupuncture	108 (10.0%)	26 (3.0%)	0 (0.0%)	16 (61.5%)	6 (23.1%)	2 (7.7%)	2 (7.7%)
Therapy with a psychologist or psychiatrist	191 (17.7%)	74 (8.7%)	1 (1.4%)	24 (32.4%)	23 (31.1%)	8 (10.8%)	18 (24.3%)
Non-medical intervention (e.g., wearing wigs or camouflage)	373 (34.6%)	266 (31.1%)	0 (0.0%)	34 (12.8%)	40 (15.0%)	44 (16.5%)	148 (55.6%)
Other	38 (3.5%)	18 (2.1%)	0 (0.0%)	6 (33.3%)	3 (16.7%)	5 (27.8%)	4 (22.2%)
No Previous Treatment Experience	249 (23.1%)						
No Current Treatment Experience		472 (35.6%)					

Supplemental Figure 1. Health-Related Quality of Life (Skindex-16) by Eyebrow Hair Loss

*** p<0.0001; Pairwise comparisons between group means were performed using the Tukey-Kramer test adjusting for multiple comparisons

Supplemental Figure 2. Health-Related Quality of Life (Skindex-16) by Eyelash Hair Loss

*** p<0.0001; Pairwise comparisons between group means were performed using the Tukey-Kramer test adjusting for multiple comparisons