

SUPPLEMENTARY MATERIAL

Validation of the Alopecia Areata Patient Priority Outcomes (AAPPO) Questionnaire in Adults and Adolescents With Alopecia Areata

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Table S1. AAPPO Item-Level Descriptive Statistics

AAPPO Items	Baseline			Follow-up		
	Overall	Adult	Adolescent	Overall	Adult	Adolescent
Item 1. Hair loss on scalp						
<i>n</i> (%)	121 (100.0)	85 (100.0)	36 (100.0)	121 (100.0)	85 (100.0)	36 (100.0)
Mean (SD)	3.3 (0.70)	3.3 (0.70)	3.3 (0.72)	3.2 (0.80)	3.2 (0.77)	3.3 (0.88)
Median	3.0	3.0	3.0	3.0	3.0	3.5
Min, Max	1.0, 4.0	1.0, 4.0	2.0, 4.0	1.0, 4.0	1.0, 4.0	1.0, 4.0
No hair loss (0), <i>n</i> (%)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
A little hair loss (1), <i>n</i> (%)	1 (0.8)	1 (1.2)	0 (0.0)	4 (3.3)	2 (2.4)	2 (5.6)
Moderate hair loss (2), <i>n</i> (%)	14 (11.6)	9 (10.6)	5 (13.9)	16 (13.2)	12 (14.1)	4 (11.1)
A great deal of hair loss (3), <i>n</i> (%)	55 (45.5)	41 (48.2)	14 (38.9)	50 (41.3)	38 (44.7)	12 (33.3)
Complete hair loss (4), <i>n</i> (%)	51 (42.1)	34 (40.0)	17 (47.2)	51 (42.1)	33 (38.8)	18 (50.0)
Missing	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Item 2. Hair loss on eyebrows						
<i>n</i> (%)	121 (100.0)	85 (100.0)	36 (100.0)	121 (100.0)	85 (100.0)	36 (100.0)
Mean (SD)	2.2 (1.58)	2.2 (1.59)	2.3 (1.55)	2.2 (1.60)	2.2 (1.59)	2.3 (1.64)
Median	3.0	3.0	2.5	3.0	2.0	3.0
Min, Max	0.0, 4.0	0.0, 4.0	0.0, 4.0	0.0, 4.0	0.0, 4.0	0.0, 4.0
No hair loss (0), <i>n</i> (%)	24 (19.8)	18 (21.2)	6 (16.7)	25 (20.7)	17 (20.0)	8 (22.2)
A little hair loss (1), <i>n</i> (%)	25 (20.7)	18 (21.2)	7 (19.4)	25 (20.7)	19 (22.4)	6 (16.7)
Moderate hair loss (2), <i>n</i> (%)	11 (9.1)	6 (7.1)	5 (13.9)	9 (7.4)	7 (8.2)	2 (5.6)
A great deal of hair loss (3), <i>n</i> (%)	20 (16.5)	15 (17.6)	5 (13.9)	20 (16.5)	13 (15.3)	7 (19.4)
Complete hair loss (4), <i>n</i> (%)	41 (33.9)	28 (32.9)	13 (36.1)	42 (34.7)	29 (34.1)	13 (36.1)
Missing	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Item 3. Hair loss on eyelashes						
<i>n</i> (%)	121 (100.0)	85 (100.0)	36 (100.0)	121 (100.0)	85 (100.0)	36 (100.0)
Mean (SD)	2.0 (1.64)	1.9 (1.63)	2.1 (1.66)	2.0 (1.63)	1.9 (1.63)	2.2 (1.65)
Median	2.0	2.0	2.0	2.0	2.0	2.5
Min, Max	0.0, 4.0	0.0, 4.0	0.0, 4.0	0.0, 4.0	0.0, 4.0	0.0, 4.0
No hair loss (0), <i>n</i> (%)	37 (30.6)	27 (31.8)	10 (27.8)	34 (28.1)	25 (29.4)	9 (25.0)
A little hair loss (1), <i>n</i> (%)	16 (13.2)	12 (14.1)	4 (11.1)	23 (19.0)	17 (20.0)	6 (16.7)
Moderate hair loss (2), <i>n</i> (%)	18 (14.9)	13 (15.3)	5 (13.9)	12 (9.9)	9 (10.6)	3 (8.3)
A great deal of hair loss (3), <i>n</i> (%)	14 (11.6)	9 (10.6)	5 (13.9)	16 (13.2)	10 (11.8)	6 (16.7)
Complete hair loss (4), <i>n</i> (%)	36 (29.8)	24 (28.2)	12 (33.3)	36 (29.8)	24 (28.2)	12 (33.3)
Missing	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Item 4. Hair loss on body						
<i>n</i> (%)	121 (100.0)	85 (100.0)	36 (100.0)	121 (100.0)	85 (100.0)	36 (100.0)
Mean (SD)	2.1 (1.49)	2.0 (1.53)	2.4 (1.40)	2.1 (1.49)	2.1 (1.48)	2.2 (1.55)

AAPPO Items	Baseline			Follow-up		
	Overall	Adult	Adolescent	Overall	Adult	Adolescent
Median	2.0	2.0	3.0	2.0	2.0	2.5
Min, Max	0.0, 4.0	0.0, 4.0	0.0, 4.0	0.0, 4.0	0.0, 4.0	0.0, 4.0
No hair loss (0), <i>n</i> (%)	24 (19.8)	20 (23.5)	4 (11.1)	27 (22.3)	18 (21.2)	9 (25.0)
A little hair loss (1), <i>n</i> (%)	23 (19.0)	15 (17.6)	8 (22.2)	17 (14.0)	15 (17.6)	2 (5.6)
Moderate hair loss (2), <i>n</i> (%)	17 (14.0)	12 (14.1)	5 (13.9)	19 (15.7)	12 (14.1)	7 (19.4)
A great deal of hair loss (3), <i>n</i> (%)	26 (21.5)	17 (20.0)	9 (25.0)	29 (24.0)	21 (24.7)	8 (22.2)
Complete hair loss (4), <i>n</i> (%)	31 (25.6)	21 (24.7)	10 (27.8)	29 (24.0)	19 (22.4)	10 (27.8)
Missing	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Item 5. Self-conscious about hair loss						
<i>n</i> (%)	121 (100.0)	85 (100.0)	36 (100.0)	121 (100.0)	85 (100.0)	36 (100.0)
Mean (SD)	2.6 (1.37)	2.9 (1.19)	1.8 (1.46)	2.4 (1.37)	2.6 (1.28)	1.7 (1.35)
Median	3.0	3.0	2.0	3.0	3.0	1.5
Min, Max	0.0, 4.0	0.0, 4.0	0.0, 4.0	0.0, 4.0	0.0, 4.0	0.0, 4.0
Never (0), <i>n</i> (%)	15 (12.4)	5 (5.9)	10 (27.8)	17 (14.0)	8 (9.4)	9 (25.0)
Rarely (1), <i>n</i> (%)	11 (9.1)	6 (7.1)	5 (13.9)	16 (13.2)	7 (8.2)	9 (25.0)
Sometimes (2), <i>n</i> (%)	22 (18.2)	14 (16.5)	8 (22.2)	27 (22.3)	20 (23.5)	7 (19.4)
Often (3), <i>n</i> (%)	31 (25.6)	24 (28.2)	7 (19.4)	29 (24.0)	22 (25.9)	7 (19.4)
Always (4), <i>n</i> (%)	42 (34.7)	36 (42.4)	6 (16.7)	32 (26.4)	28 (32.9)	4 (11.1)
Missing	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Item 6. Embarrassed about hair loss						
<i>n</i> (%)	121 (100.0)	85 (100.0)	36 (100.0)	121 (100.0)	85 (100.0)	36 (100.0)
Mean (SD)	2.3 (1.49)	2.6 (1.35)	1.5 (1.54)	2.0 (1.42)	2.3 (1.35)	1.4 (1.40)
Median	3.0	3.0	1.0	2.0	3.0	1.0
Min, Max	0.0, 4.0	0.0, 4.0	0.0, 4.0	0.0, 4.0	0.0, 4.0	0.0, 4.0
Never (0), <i>n</i> (%)	25 (20.7)	11 (12.9)	14 (38.9)	27 (22.3)	13 (15.3)	14 (38.9)
Rarely (1), <i>n</i> (%)	12 (9.9)	5 (5.9)	7 (19.4)	15 (12.4)	9 (10.6)	6 (16.7)
Sometimes (2), <i>n</i> (%)	22 (18.2)	18 (21.2)	4 (11.1)	28 (23.1)	20 (23.5)	8 (22.2)
Often (3), <i>n</i> (%)	28 (23.1)	23 (27.1)	5 (13.9)	28 (23.1)	24 (28.2)	4 (11.1)
Always (4), <i>n</i> (%)	34 (28.1)	28 (32.9)	6 (16.7)	23 (19.0)	19 (22.4)	4 (11.1)
Missing	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Item 7. Sad about hair loss						
<i>n</i> (%)	121 (100.0)	85 (100.0)	36 (100.0)	121 (100.0)	85 (100.0)	36 (100.0)
Mean (SD)	2.3 (1.46)	2.6 (1.35)	1.6 (1.44)	2.1 (1.32)	2.4 (1.29)	1.6 (1.23)
Median	3.0	3.0	2.0	2.0	3.0	1.5
Min, Max	0.0, 4.0	0.0, 4.0	0.0, 4.0	0.0, 4.0	0.0, 4.0	0.0, 4.0
Never (0), <i>n</i> (%)	24 (19.8)	11 (12.9)	13 (36.1)	19 (15.7)	11 (12.9)	8 (22.2)
Rarely (1), <i>n</i> (%)	10 (8.3)	6 (7.1)	4 (11.1)	19 (15.7)	9 (10.6)	10 (27.8)

AAPPO Items	Baseline			Follow-up		
	Overall	Adult	Adolescent	Overall	Adult	Adolescent
Sometimes (2), <i>n</i> (%)	25 (20.7)	15 (17.6)	10 (27.8)	30 (24.8)	20 (23.5)	10 (27.8)
Often (3), <i>n</i> (%)	29 (24.0)	25 (29.4)	4 (11.1)	32 (26.4)	27 (31.8)	5 (13.9)
Always (4), <i>n</i> (%)	33 (27.3)	28 (32.9)	5 (13.9)	21 (17.4)	18 (21.2)	3 (8.3)
Missing	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Item 8. Frustrated about hair loss						
<i>n</i> (%)	121 (100.0)	85 (100.0)	36 (100.0)	121 (100.0)	85 (100.0)	36 (100.0)
Mean (SD)	2.4 (1.49)	2.7 (1.41)	1.9 (1.53)	2.2 (1.38)	2.5 (1.34)	1.7 (1.33)
Median	3.0	3.0	2.0	2.0	3.0	1.0
Min, Max	0.0, 4.0	0.0, 4.0	0.0, 4.0	0.0, 4.0	0.0, 4.0	0.0, 4.0
Never (0), <i>n</i> (%)	23 (19.0)	12 (14.1)	11 (30.6)	20 (16.5)	12 (14.1)	8 (22.2)
Rarely (1), <i>n</i> (%)	11 (9.1)	6 (7.1)	5 (13.9)	17 (14.0)	6 (7.1)	11 (30.6)
Sometimes (2), <i>n</i> (%)	15 (12.4)	11 (12.9)	4 (11.1)	26 (21.5)	20 (23.5)	6 (16.7)
Often (3), <i>n</i> (%)	34 (28.1)	24 (28.2)	10 (27.8)	31 (25.6)	24 (28.2)	7 (19.4)
Always (4), <i>n</i> (%)	38 (31.4)	32 (37.6)	6 (16.7)	27 (22.3)	23 (27.1)	4 (11.1)
Missing	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Item 9. Limit participation in outdoor activities because of hair loss						
<i>n</i> (%)	121 (100.0)	85 (100.0)	36 (100.0)	121 (100.0)	85 (100.0)	36 (100.0)
Mean (SD)	1.1 (1.22)	1.2 (1.27)	0.7 (1.01)	1.1 (1.26)	1.3 (1.31)	0.6 (0.97)
Median	1.0	1.0	0.0	1.0	1.0	0.0
Min, Max	0.0, 4.0	0.0, 4.0	0.0, 3.0	0.0, 4.0	0.0, 4.0	0.0, 4.0
Not at all (0), <i>n</i> (%)	57 (47.1)	34 (40.0)	23 (63.9)	56 (46.3)	32 (37.6)	24 (66.7)
A little (1), <i>n</i> (%)	24 (19.8)	19 (22.4)	5 (13.9)	31 (25.6)	24 (28.2)	7 (19.4)
Moderately (2), <i>n</i> (%)	19 (15.7)	14 (16.5)	5 (13.9)	10 (8.3)	7 (8.2)	3 (8.3)
A great deal (3), <i>n</i> (%)	17 (14.0)	14 (16.5)	3 (8.3)	18 (14.9)	17 (20.0)	1 (2.8)
Completely (4), <i>n</i> (%)	4 (3.3)	4 (4.7)	0 (0.0)	6 (5.0)	5 (5.9)	1 (2.8)
Missing	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Item 10. Limit exercise because of hair loss						
<i>n</i> (%)	121 (100.0)	85 (100.0)	36 (100.0)	121 (100.0)	85 (100.0)	36 (100.0)
Mean (SD)	0.9 (1.15)	1.1 (1.22)	0.4 (0.77)	0.8 (1.14)	1.0 (1.20)	0.4 (0.84)
Median	0.0	1.0	0.0	0.0	1.0	0.0
Min, Max	0.0, 4.0	0.0, 4.0	0.0, 3.0	0.0, 4.0	0.0, 4.0	0.0, 3.0
Never (0), <i>n</i> (%)	62 (51.2)	36 (42.4)	26 (72.2)	68 (56.2)	41 (48.2)	27 (75.0)
Rarely (1), <i>n</i> (%)	28 (23.1)	22 (25.9)	6 (16.7)	23 (19.0)	18 (21.2)	5 (13.9)
Sometimes (2), <i>n</i> (%)	14 (11.6)	11 (12.9)	3 (8.3)	15 (12.4)	13 (15.3)	2 (5.6)
Often (3), <i>n</i> (%)	14 (11.6)	13 (15.3)	1 (2.8)	12 (9.9)	10 (11.8)	2 (5.6)
Always (4), <i>n</i> (%)	3 (2.5)	3 (3.5)	0 (0.0)	3 (2.5)	3 (3.5)	0 (0.0)
Missing	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)

AAPPO Items	Baseline			Follow-up		
	Overall	Adult	Adolescent	Overall	Adult	Adolescent
Item 11. Limit interaction with others because of hair loss						
n (%)	121 (100.0)	85 (100.0)	36 (100.0)	121 (100.0)	85 (100.0)	36 (100.0)
Mean (SD)	0.9 (1.02)	1.1 (1.05)	0.5 (0.81)	1.0 (1.12)	1.2 (1.13)	0.6 (0.99)
Median	1.0	1.0	0.0	1.0	1.0	0.0
Min, Max	0.0, 3.0	0.0, 3.0	0.0, 3.0	0.0, 4.0	0.0, 4.0	0.0, 3.0
Never (0), <i>n</i> (%)	54 (44.6)	30 (35.3)	24 (66.7)	55 (45.5)	31 (36.5)	24 (66.7)
Rarely (1), <i>n</i> (%)	37 (30.6)	28 (32.9)	9 (25.0)	29 (24.0)	24 (28.2)	5 (13.9)
Sometimes (2), <i>n</i> (%)	16 (13.2)	15 (17.6)	1 (2.8)	21 (17.4)	17 (20.0)	4 (11.1)
Often (3), <i>n</i> (%)	14 (11.6)	12 (14.1)	2 (5.6)	14 (11.6)	11 (12.9)	3 (8.3)
Always (4), <i>n</i> (%)	0 (0.0)	0 (0.0)	0 (0.0)	2 (1.7)	2 (2.4)	0 (0.0)
Missing	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)

AAPPO, Alopecia Areata Patient Priority Outcomes; Min, Max, minimum, maximum; SD, standard deviation.

Table S2. AAPPO Inter-Item Correlations at Baseline by Age Group

Age Group/AAPPO Item	Polychoric Correlation, r AAPPO Item									
	1	2	3	4	5	6	7	8	9	10
Adults (<i>n</i> = 85)										
Item 1. Hair loss on scalp	–									
Item 2. Hair loss on eyebrows	0.80	–								
Item 3. Hair loss on eyelashes	0.73	0.92	–							
Item 4. Hair loss on body	0.75	0.88	0.85	–						
Item 5. Self-conscious about hair loss	–0.37	–0.32	–0.17	–0.31	–					
Item 6. Embarrassed about hair loss	–0.37	–0.25	–0.15	–0.30	0.91	–				
Item 7. Sad about hair loss	–0.32	–0.21	–0.10	–0.15	0.79	0.78	–			
Item 8. Frustrated about hair loss	–0.31	–0.13	–0.02	–0.11	0.88	0.85	0.83	–		
Item 9. Limit participation in outdoor activities because of hair loss	–0.15	–0.04	0.03	0.02	0.60	0.72	0.62	0.67	–	
Item 10. Limit exercise because of hair loss	–0.17	–0.07	–0.01	–0.08	0.56	0.61	0.44	0.63	0.84	–
Item 11. Limit interaction with others because of hair loss	–0.13	0.01	0.09	0.00	0.60	0.72	0.56	0.57	0.76	0.70
Adolescents (<i>n</i> = 36)										
Item 1. Hair loss on scalp	–									
Item 2. Hair loss on eyebrows	0.32	–								
Item 3. Hair loss on eyelashes	0.31	0.94	–							
Item 4. Hair loss on body	0.64	0.86	0.83	–						
Item 5. Self-conscious about hair loss	–0.19	–0.45	–0.45	–0.43	–					
Item 6. Embarrassed about hair loss	–0.11	–0.49	–0.46	–0.39	0.98	–				
Item 7. Sad about hair loss	–0.26	–0.47	–0.39	–0.42	0.92	0.91	–			
Item 8. Frustrated about hair loss	–0.49	–0.53	–0.45	–0.58	0.85	0.85	0.95	–		
Item 9. Limit participation in outdoor activities because of hair loss	–0.21	–0.26	–0.28	–0.36	0.80	0.81	0.78	0.78	–	
Item 10. Limit exercise because of hair loss	–0.06	–0.21	–0.24	–0.15	0.89	0.85	0.82	0.69	0.84	–

Age Group/AAPPO Item	Polychoric Correlation, r									
	AAPPO Item									
	1	2	3	4	5	6	7	8	9	10
Item 11. Limit interaction with others because of hair loss	-0.08	-0.55	-0.58	-0.60	0.86	0.86	0.74	0.83	0.83	0.74

Note: Gray shading gray shading indicates inter-item correlations within a given domain.

AAPPO, Alopecia Areata Patient Priority Outcomes.

Table S3. EFA Results at Baseline: Overall Sample

AAPPO Item	Factor Loadings (SE)					
	1-Factor Solution	2-Factor Solution		3-Factor Solution		
	Factor 1	Factor 1	Factor 2	Factor 1	Factor 2	Factor 3
Item 1. Hair loss on scalp	−0.550 (0.053)	0.673 (0.059)	−0.111 (0.074)	0.637 (0.071)	−0.255 (0.136)	0.135 (0.141)
Item 2. Hair loss on eyebrows	−0.946 (0.017)	0.966 (0.018)	−0.017 (0.031)	0.962 (0.026)	−0.008 (0.067)	−0.015 (0.065)
Item 3. Hair loss on eyelashes	−0.888 (0.022)	0.960 (0.018)	0.050 (0.037)	0.991 (0.023)	0.152 (0.060)	−0.091 (0.060)
Item 4. Hair loss on body	−0.813 (0.025)	0.889 (0.023)	−0.053 (0.040)	0.870 (0.037)	−0.154 (0.097)	0.101 (0.082)
Item 5. Self-conscious about hair loss	0.953 (0.015)	−0.185 (0.055)	0.904 (0.031)	−0.073 (0.054)	0.871 (0.092)	0.091 (0.103)
Item 6. Embarrassed about hair loss	0.953 (0.013)	−0.147 (0.049)	0.922 (0.025)	−0.074 (0.058)	0.768 (0.101)	0.224 (0.104)
Item 7. Sad about hair loss	0.875 (0.025)	−0.131 (0.063)	0.854 (0.038)	0.037 (0.043)	0.959 (0.070)	−0.047 (0.075)
Item 8. Frustrated about hair loss	0.887 (0.021)	−0.117 (0.056)	0.881 (0.029)	0.026 (0.051)	0.912 (0.092)	0.029 (0.098)
Item 9. Limit participation in outdoor activities because of hair loss	0.832 (0.033)	0.231 (0.056)	0.930 (0.031)	0.028 (0.054)	0.083 (0.114)	0.874 (0.107)
Item 10. Limit exercise because of hair loss	0.770 (0.036)	0.182 (0.064)	0.879 (0.035)	−0.028 (0.045)	−0.029 (0.075)	0.914 (0.082)
Item 11. Limit interaction with others because of hair loss	0.745 (0.040)	0.114 (0.062)	0.843 (0.040)	0.006 (0.074)	0.225 (0.131)	0.669 (0.121)
Quartimin factor correlations	—	F1–F2: −0.227			F1–F2: −0.298 F1–F3: −0.104 F2–F3: 0.756	
Fit Indices						
Root mean square error of approximation (90% CI)	0.272 (0.250–0.296)	0.117 (0.088–0.147)			0.079 (0.037–0.117)	
Comparative fit index	0.935	0.991			0.997	
Tucker-Lewis index	0.919	0.985			0.993	
Standardized root mean square residual	0.330	0.055			0.024	

AAPPO Item	Factor Loadings (SE)					
	1-Factor Solution	2-Factor Solution		3-Factor Solution		
	Factor 1	Factor 1	Factor 2	Factor 1	Factor 2	Factor 3
Chi-square test	439.11 (df = 44)	90.40 (df = 34)		43.66 (df = 25)		
	$p < 0.0001$	$p < 0.0001$		$p = 0.0118$		

Note: Gray shading gray shading indicates factor loadings within a given domain.

AAPPO, Alopecia Areata Patient Priority Outcomes; CI, confidence interval; EFA, exploratory factor analysis; df, degree of freedom; SE, standard error.

Table S4. AAPPO Item-Level Scores: Test-Retest Reliability Results by Age Group

AAPPO Score	Test-Retest Reliability Coefficient (95% CI), <i>n</i>			
	All Patients	PGIS _{BL} = PGIS _{FU}	PGIC _{FU} = Not Changed	Stable AASIS Hair Loss ^a
Adults				
Item 1. Hair loss on scalp	0.78 (0.67–0.89), 85	0.79 (0.64–0.93), 64	0.75 (0.61–0.88), 61	0.94 (0.89–1.00), 52
Item 2. Hair loss on eyebrows	0.95 (0.91–0.99), 85	0.94 (0.87–1.00), 64	0.98 (0.97–1.00), 61	0.94 (0.86–1.00), 52
Item 3. Hair loss on eyelashes	0.98 (0.96–0.99), 85	0.97 (0.96–0.99), 64	0.98 (0.97–1.00), 61	0.98 (0.96–1.00), 52
Item 4. Hair loss on body	0.92 (0.88–0.95), 85	0.90 (0.84–0.95), 64	0.91 (0.87–0.96), 61	0.93 (0.90–0.97), 52
Item 5. Self-conscious about hair loss	0.82 (0.74–0.91), 85	0.86 (0.77–0.94), 64	0.85 (0.77–0.93), 61	0.88 (0.81–0.96), 52
Item 6. Embarrassed about hair loss	0.78 (0.67–0.89), 85	0.78 (0.66–0.90), 64	0.78 (0.66–0.90), 61	0.83 (0.74–0.93), 52
Item 7. Sad about hair loss	0.76 (0.65–0.86), 85	0.77 (0.66–0.89), 64	0.79 (0.68–0.90), 61	0.76 (0.63–0.89), 52
Item 8. Frustrated about hair loss	0.79 (0.70–0.87), 85	0.82 (0.72–0.91), 64	0.79 (0.70–0.89), 61	0.84 (0.75–0.93), 52
Item 9. Limit participation in outdoor activities because of hair loss	0.72 (0.60–0.85), 85	0.78 (0.67–0.89), 64	0.80 (0.67–0.92), 61	0.76 (0.62–0.90), 52
Item 10. Limit exercise because of hair loss	0.71 (0.57–0.85), 85	0.78 (0.65–0.91), 64	0.76 (0.61–0.91), 61	0.81 (0.67–0.95), 52
Item 11. Limit interaction with others because of hair loss	0.71 (0.57–0.84), 85	0.77 (0.67–0.88), 64	0.69 (0.52–0.86), 61	0.68 (0.48–0.88), 52

AAPPO Score	Test-Retest Reliability Coefficient (95% CI), <i>n</i>			
	All Patients	PGIS _{BL} = PGIS _{FU}	PGIC _{FU} = Not Changed	Stable AASIS Hair Loss ^a
Adolescents				
Item 1. Hair loss on scalp	0.82 (0.67–0.98), 36	0.89 (0.80–0.99), 21	0.86 (0.76–0.96), 26	0.93 (0.86–1.00), 22
Item 2. Hair loss on eyebrows	0.96 (0.93–0.99), 36	0.97 (0.94–1.00), 21	0.96 (0.92–1.00), 26	0.98 (0.96–1.00), 22
Item 3. Hair loss on eyelashes	0.90 (0.83–0.97), 36	0.93 (0.88–0.98), 21	0.88 (0.79–0.97), 26	0.95 (0.92–0.99), 22
Item 4. Hair loss on body	0.77 (0.62–0.93), 36	0.79 (0.60–0.99), 21	0.69 (0.44–0.94), 26	0.89 (0.81–0.98), 22
Item 5. Self-conscious about hair loss	0.89 (0.82–0.95), 36	0.89 (0.81–0.97), 21	0.89 (0.81–0.96), 26	0.87 (0.79–0.96), 22
Item 6. Embarrassed about hair loss	0.92 (0.87–0.97), 36	0.92 (0.87–0.98), 21	0.92 (0.87–0.98), 26	0.93 (0.88–0.98), 22
Item 7. Sad about hair loss	0.83 (0.74–0.93), 36	0.87 (0.78–0.96), 21	0.87 (0.79–0.95), 26	0.82 (0.68–0.96), 22
Item 8. Frustrated about hair loss	0.72 (0.53–0.91), 36	0.88 (0.76–1.00), 21	0.73 (0.52–0.95), 26	0.76 (0.55–0.98), 22
Item 9. Limit participation in outdoor activities because of hair loss	0.71 (0.50–0.93), 36	0.74 (0.52–0.96), 21	0.67 (0.41–0.93), 26	0.68 (0.43–0.93), 22
Item 10. Limit exercise because of hair loss	0.82 (0.68–0.97), 36	0.81 (0.59–1.00), 21	0.79 (0.57–1.00), 26	0.87 (0.75–0.99), 22
Item 11. Limit interaction with others because of hair loss	0.71 (0.48–0.94), 36	0.66 (0.36–0.95), 21	0.63 (0.29–0.97), 26	0.80 (0.60–1.00), 22

^a Patients with a 1-point change or no change in the AASIS hair loss subscale and its component items at baseline (test) and 2-week follow-up (retest).

AASIS, Alopecia Areata Symptom Impact Scale; AAPPO, Alopecia Areata Patient Priority Outcomes; BL, baseline; CI, confidence interval; FU, follow-up; PGIC, Patient Global Impression of Change; PGIS, Patient Global Impression of Severity.

Table S5. AAPPO Domain Scores: Internal Consistency

AAPPO Domain Score	Cronbach's Alpha					
	Overall	Baseline Adult	Adolescent	Overall	Follow-up Adult	Adolescent
Emotional Symptoms (<i>n</i>)	0.95 (121)	0.94 (85)	0.96 (36)	0.96 (121)	0.95 (85)	0.96 (36)
Activity Limitations (<i>n</i>)	0.89 (121)	0.88 (85)	0.87 (36)	0.92 (121)	0.91 (85)	0.93 (36)

AAPPO, Alopecia Areata Patient Priority Outcomes.

Table S6. Six AAPPO Domain Scores: Construct Validity at Baseline by Age

AAPPO Items	Correlation Coefficient					
	Scalp	Eyebrows	Eyelashes	Body	Emotional Symptoms	Activity Limitations
Adults (<i>n</i> = 85)						
PGIS	0.60*	0.51*	0.51*	0.53*	−0.04	−0.00
AASIS scales						
Total	−0.18	0.04	0.07	0.02	0.61*	0.75*
Hair loss	0.43*	0.63*	0.66*	0.65*	0.01	0.16
5 symptoms	−0.33*	−0.14	−0.16	−0.18	0.53*	0.65*
7 symptoms	−0.09	0.16	0.16	0.13	0.45*	0.62*
Interference	−0.23*	−0.07	−0.02	−0.08	0.66*	0.76*
SF-36v2 Acute						
Physical functioning	−0.01	−0.06	−0.05	−0.02	−0.10	−0.20
Role limitations due to physical health	0.03	0.04	0.06	0.01	−0.20	−0.31*
Bodily pain	−0.03	−0.06	−0.06	−0.08	−0.27*	−0.31*
General health perceptions	0.11	0.03	0.08	0.08	−0.39*	−0.34*
Vitality	0.26*	0.25*	0.24*	0.33*	−0.49*	−0.43*
Social functioning	0.22*	0.19	0.20	0.17	−0.45*	−0.59*
Role limitations due to emotional problems	0.15	0.11	0.15	0.12	−0.45*	−0.62*
Mental health	0.26*	0.16	0.15	0.18	−0.55*	−0.61*
PCS	−0.08	−0.08	−0.07	−0.08	−0.07	−0.07
MCS	0.27*	0.21	0.22*	0.23*	−0.54*	−0.64*
Adolescents (<i>n</i> = 36)						
PGIS	0.63*	0.26	0.38*	0.47*	−0.23	−0.08
AASIS scales						
Total	−0.25	−0.15	−0.20	−0.24	0.75*	0.72*
Hair loss	0.16	0.40*	0.41*	0.28	−0.11	0.14
5 symptoms	−0.42*	−0.28	−0.31	−0.41*	0.64*	0.53*
7 symptoms	−0.26	−0.02	−0.05	−0.19	0.47*	0.52*
Interference	−0.16	−0.25	−0.31	−0.23	0.86*	0.74*
SF-36v2 Acute						
Physical functioning	−0.03	0.16	0.16	0.04	−0.18	0.02
Role limitations due to physical health	0.14	0.17	0.10	0.15	−0.24	−0.05
Bodily pain	0.20	0.10	0.05	0.21	−0.27	−0.26

AAPPO Items	Correlation Coefficient					
	Scalp	Eyebrows	Eyelashes	Body	Emotional Symptoms	Activity Limitations
General health perceptions	0.13	0.21	0.21	0.21	-0.28	-0.18
Vitality	0.47*	0.24	0.18	0.28	-0.53*	-0.30
Social functioning	0.32	0.24	0.35*	0.37*	-0.65*	-0.59*
Role limitations due to emotional problems	0.32	0.20	0.28	0.23	-0.65*	-0.53*
Mental health	0.32	0.29	0.34*	0.33*	-0.70*	-0.56*
PCS	-0.10	-0.02	-0.12	-0.03	0.28	0.29
MCS	0.36*	0.25	0.32	0.32	-0.69*	-0.56*

* $p < 0.05$, test for $H_0: \rho = 0.0$.

AAPPO, Alopecia Areata Patient Priority Outcomes; AASIS, Alopecia Areata Symptom Impact Scale; MCS, mental component summary; PCS, physical component summary; PGIS, patient global impression of severity; SF-36v2 Acute, 36-Item Short Form Health Survey version 2 Acute.

Table S7. Six AAPPO Domain Scores: Known Groups Validity Based on SALT Groups at Baseline by Age

	AAPPO Domain Scores, Mean (SD) [Median], <i>n</i>					
	Hair Loss Items				Emotional	Activity
	Scalp	Eyebrows	Eyelashes	Body	Symptoms	Limitations
Adults (<i>n</i> = 85)						
SALT subgroups						
25–49%	2.7 (0.44) [3.0], 31	0.9 (1.08) [1.0], 31	0.6 (0.84) [0.0], 31	0.9 (1.09) [1.0], 31	3.3 (0.79) [3.5], 31	1.3 (1.02) [1.0], 31
50–75%	3.0 (0.41) [3.0], 13	1.8 (1.46) [2.0], 13	1.5 (1.56) [1.0], 13	1.3 (1.11) [1.0], 13	3.1 (0.70) [3.3], 13	1.6 (1.08) [1.7], 13
76–100%	3.8 (0.58) [4.0], 41	3.3 (1.12) [4.0], 41	3.0 (1.40) [4.0], 41	3.1 (1.14) [3.0], 41	2.2 (1.36) [2.5], 41	0.9 (1.05) [0.3], 41
ANOVA results						
Overall, <i>F</i> ; <i>p</i> value	36.77; < 0.0001	37.98; < 0.0001	30.64; < 0.0001	36.92; < 0.0001	10.20; 0.0001	2.73; 0.0715
Pairwise, <i>t</i> ; <i>p</i> value						
25–49% vs. 50–75%	–1.53; 0.3438	–2.45; 0.0480	–2.16; 0.0973	–1.00; 0.6826	0.38; 0.9735	–1.08; 0.6314
25–49% vs. 76–100%	–8.32; < 0.0001	–8.63; < 0.0001	–7.75; < 0.0001	–8.20; < 0.0001	4.26; 0.0002	1.44; 0.3914
50–75% vs. 76–100%	–4.64; < 0.0001	–3.91; 0.0006	–3.55; 0.0019	–5.08; < 0.0001	2.79; 0.0196	2.20; 0.0887
Adolescents (<i>n</i> = 36)						
SALT subgroups						
25–49%	2.3 (0.52) [2.0], 6	1.0 (1.55) [0.5], 6	1.0 (1.55) [0.5], 6	1.0 (0.89) [1.0], 6	3.0 (1.20) [3.5], 6	0.6 (0.49) [0.8], 6
50–75%	3.3 (0.58) [3.0], 3	2.0 (2.00) [2.0], 3	2.0 (2.00) [2.0], 3	2.0 (1.73) [3.0], 3	0.8 (1.44) [0.0], 3	0.1 (0.19) [0.0], 3
76–100%	3.6 (0.58) [4.0], 27	2.7 (1.39) [3.0], 27	2.4 (1.60) [3.0], 27	2.7 (1.30) [3.0], 27	1.5 (1.32) [1.3], 27	0.5 (0.86) [0.0], 27
ANOVA results						
Overall, <i>F</i> ; <i>p</i> value	11.34; 0.0002	3.30; 0.0494	1.87; 0.1706	4.52; 0.0185	3.76; 0.0339	0.46; 0.6370
Pairwise, <i>t</i> ; <i>p</i> value						
25–49% vs. 50–75%	-	-	-	-	-	-
25–49% vs. 76–100%	–4.76; 0.0001	–2.54; 0.0477	–1.93; 0.1767	–2.96; 0.0168	2.47; 0.0551	0.19; 0.9966
50–75% vs. 76–100%	-	-	-	-	-	-

‘-’ indicates that statistical test was not performed due to sample size or nonsignificant omnibus test.

SALT scores provided in the eCRF were within 30 days.

AAPPO, Alopecia Areata Patient Priority Outcomes; ANOVA, analysis of variance; eCRF, electronic case report form; PGIS, patient global impression of severity; SALT, Severity of Alopecia Tool; SD, standard deviation.