



Clinical Burden and Impairment in Moderate-to-Severe Atopic Dermatitis

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Objectives

This study quantified the clinical and productivity burden of adults with moderate-to-severe AD living in the US overall and identified variations in the burden across race groups, through a web-based survey.

Results

- A total of 300 participants from all US regions completed the survey, including 234 participants of White race (78%), 37 of Black race (12%), and 16 of Asian race (5%).
- Asthma was reported at numerically higher proportions among Black (38%) participants.
- Asian participants reported a numerically higher proportion with high blood pressure (31%), food allergies (31%), and osteoporosis (19%).

Demographic and clinical characteristics

- Participants' demographic and clinical characteristics are summarized in **Table 1**, overall and stratified by race.
- On average, participants were 45 years of age, with Black participants being noticeably younger at an average of 39 years of age.
- Overall, more than half (58%) of participants were diagnosed with AD five or more years ago (**Table 1**).
 - Black participants were numerically more likely to report having experienced severe symptoms (70%) (**Figure 1**) and AD affecting their face (54%), neck (68%), or feet (62%) at any time (**Table 1**).
- Approximately half of participants (52%) had systemic therapy experience (56% oral only, 14% injection only, 30% both), with a numerically higher proportion with systemic therapy experience among Asian (63%) and Black (57%) participants (**Figure 2**).
- The most common comorbidities overall were anxiety (53%), depression (39%), high blood pressure (25%), allergic rhinitis (hay fever) (24%), and asthma (22%) (**Figure 3**).
 - White participants reported a numerically higher proportion with anxiety (54%) and depression (40%).

Work productivity and activity impairment

- Overall, a large majority of participants (85%) experienced activity impairment due to AD (mean activity impairment = 37.6% [**Figure 4**]).
 - Asian participants had the numerically highest proportion reporting any activity impairment (94%), followed by White (87%), and Black (73%) participants.
- Among employed participants overall, 82% reported work impairment due to AD (mean overall work impairment = 38.5% [**Figure 4**]).
 - White participants had the numerically highest proportion reporting any overall work impairment (84%), followed by Asian (77%), and Black (72%) participants.
- All race groups reported substantial activity impairment (range: 33.0%-38.6%) and work impairment (range: 27.2%-39.9%) (**Figure 4**).
 - This study reports higher mean activity and overall work impairment in AD patients compared to other chronic disease groups, such as patients with COPD.⁵

Conclusions

- Black patients experienced more severe symptoms, including more substantial involvement of visible body regions. Overall, this clinical burden translated into substantial activity and productivity impairments across all race groups.
- Given half of the patients in the study had never received systemic therapy, wider use of available treatment options may facilitate improved disease and symptom management, thereby reducing activity and work impairment.

Table 1. Demographic and clinical characteristics stratified by race

	All Participants N = 300	White N = 234	Black N = 37	Asian N = 16
Mean age ± SD (years)	45.0 ± 13.7	46.3 ± 13.6	38.8 ± 13.1	43.3 ± 12.5
Gender, n (%)				
Male	83 (27.7%)	57 (24.4%)	12 (32.4%)	9 (56.3%)
Female	210 (70.0%)	172 (73.5%)	24 (64.9%)	7 (43.8%)
Other/non-binary	7 (2.3%)	5 (2.1%)	1 (2.7%)	0 (0.0%)
Insurance coverage, n (%)¹				
Medicare	73 (24.3%)	62 (26.5%)	5 (13.5%)	2 (12.5%)
Medicaid	67 (22.3%)	54 (23.1%)	6 (16.2%)	2 (12.5%)
Commercial/private insurance	160 (53.3%)	124 (53.0%)	21 (56.8%)	11 (68.8%)
Other/unknown health insurance	16 (5.3%)	9 (3.8%)	5 (13.5%)	1 (6.3%)
None/uninsured	7 (2.3%)	4 (1.7%)	2 (5.4%)	1 (6.3%)
Employed, n (%)	198 (66.0%)	150 (64.1%)	27 (73.0%)	13 (81.3%)
Time since AD diagnosis, n (%)				
1 to < 2 years ago	41 (13.7%)	35 (15.0%)	2 (5.4%)	3 (18.8%)
2 to < 5 years ago	84 (28.0%)	67 (28.6%)	8 (21.6%)	6 (37.5%)
5 or more years ago	175 (58.3%)	132 (56.4%)	27 (73.0%)	7 (43.8%)
Currently treated, n (%)¹	271 (90.3%)	213 (91.0%)	33 (89.2%)	14 (87.5%)
Topical	240 (80.0%)	189 (80.8%)	30 (81.1%)	12 (75.0%)
Oral pill	93 (31.0%)	75 (32.1%)	11 (29.7%)	4 (25.0%)
Injection	44 (14.7%)	37 (15.8%)	4 (10.8%)	3 (18.8%)
Phototherapy or light therapy	27 (9.0%)	20 (8.5%)	3 (8.1%)	2 (12.5%)
Other	25 (8.3%)	21 (9.0%)	3 (8.1%)	0 (0.0%)
None	29 (9.7%)	21 (9.0%)	4 (10.8%)	2 (12.5%)
Body regions ever affecteded, n (%)¹				
Face	139 (46.3%)	108 (46.2%)	20 (54.1%)	6 (37.5%)
Neck	157 (52.3%)	115 (49.1%)	25 (67.6%)	6 (37.5%)
Hands	219 (73.0%)	171 (73.1%)	26 (70.3%)	12 (75.0%)
Feet	163 (54.3%)	126 (53.8%)	23 (62.2%)	9 (56.3%)
Other parts of the body	196 (65.3%)	153 (65.4%)	23 (62.2%)	10 (62.5%)

Note: [1] Categories are not mutually exclusive, [2] Thirteen participants were classified as having an 'Other' or 'Unknown' race and were excluded from the sub-group analysis due to sample size limitations.

Figure 1: Self-reported symptom severity stratified by race

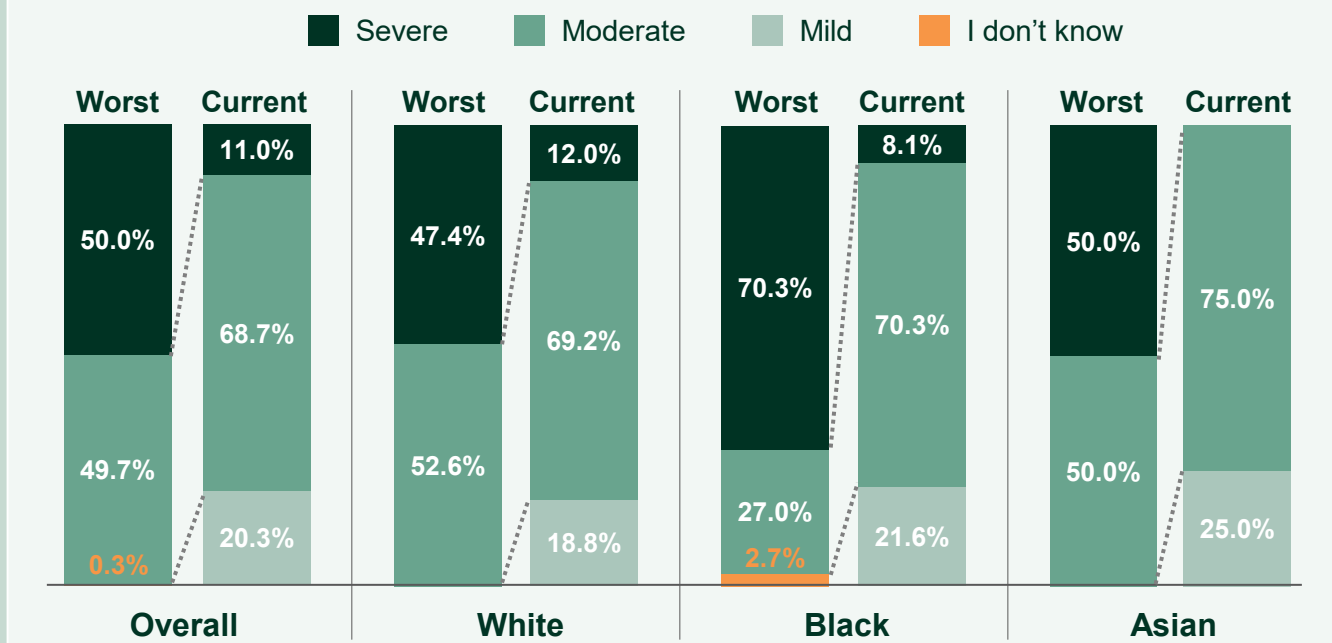


Figure 2: Systemic therapy experience stratified by race

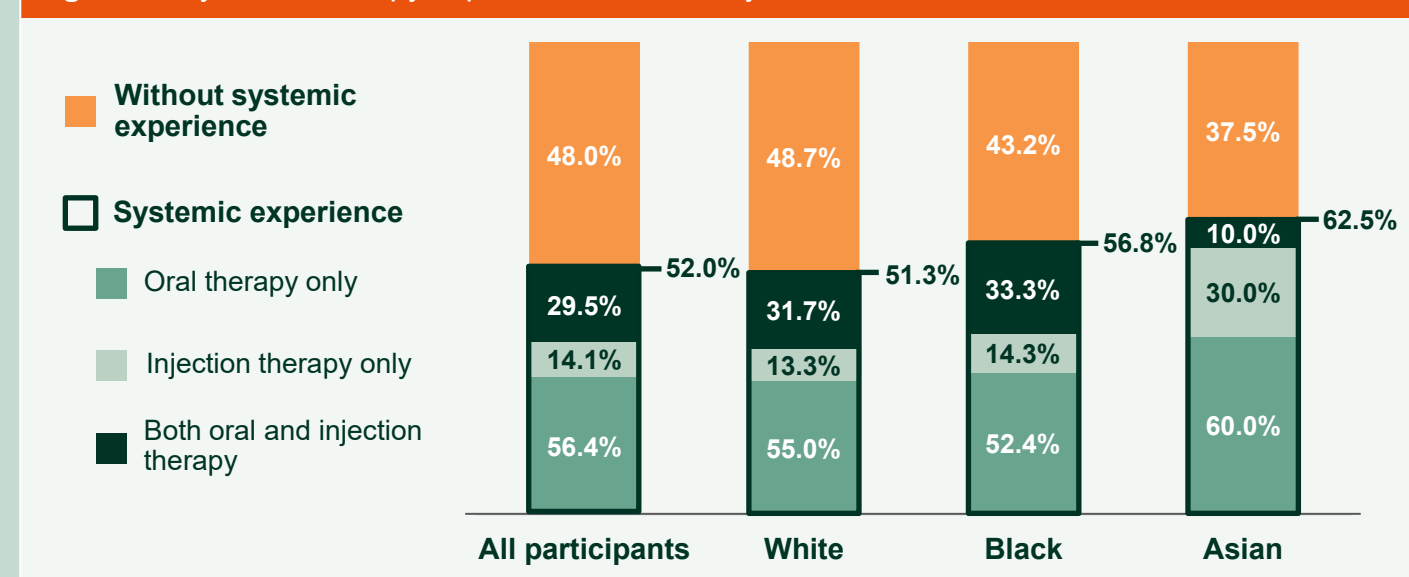


Figure 3: Common comorbidities stratified by race

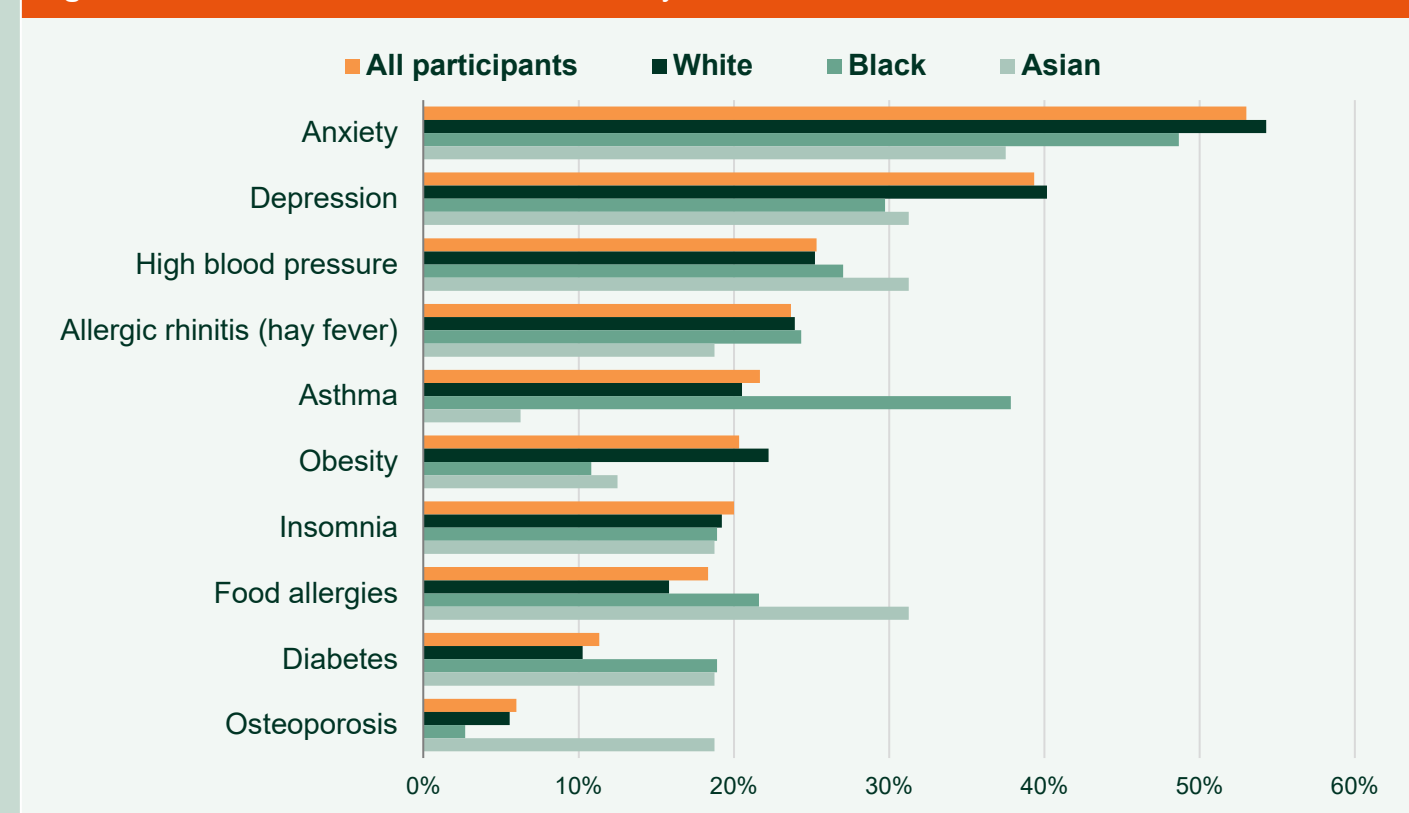
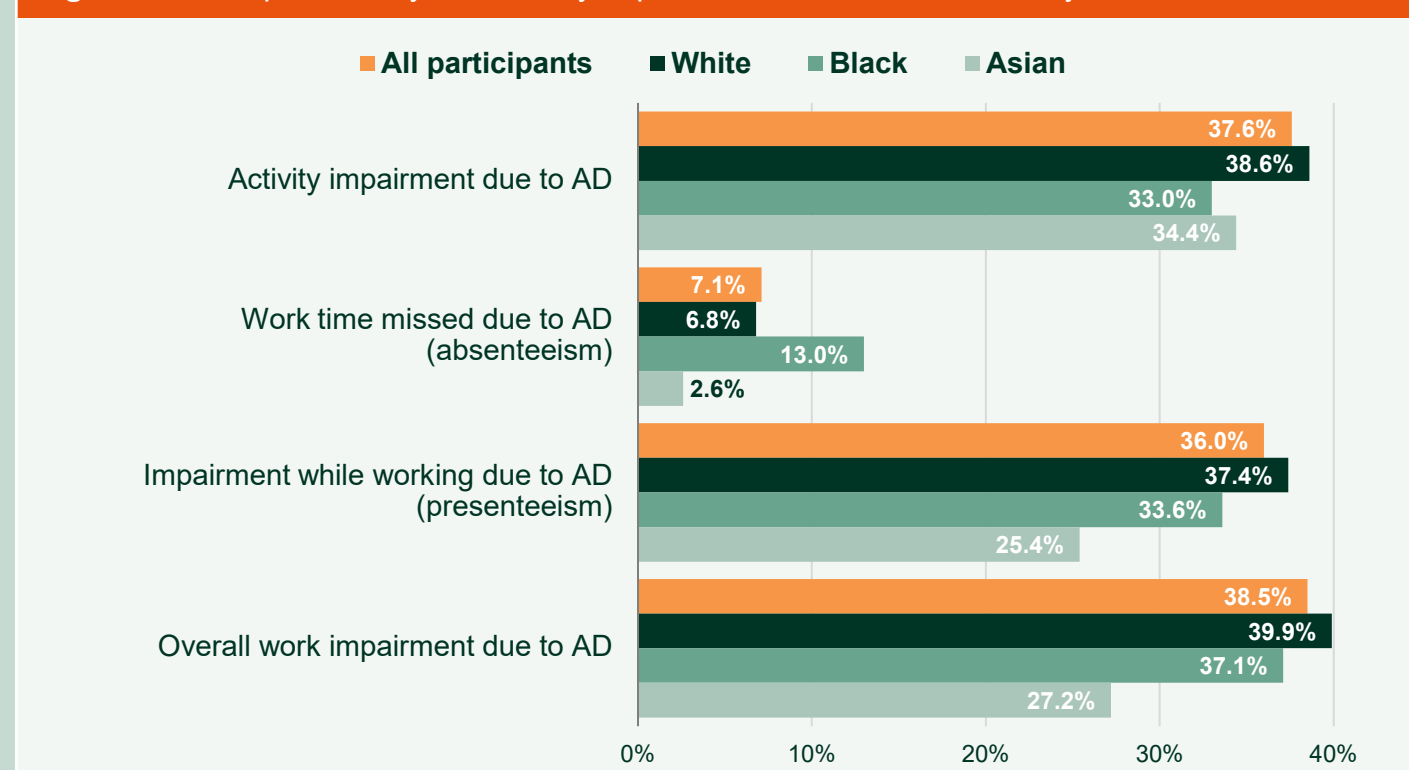


Figure 4: Work productivity and activity impairment outcomes stratified by race



Background

- Atopic dermatitis (AD) is a common condition affecting approximately 5-10% of adults worldwide.¹
- Symptoms (e.g., itching) associated with AD can lead to sleep disturbances, affecting daily activity and work productivity.²
- With an evolving treatment landscape for moderate-to-severe AD, including biologic therapies and janus-kinase (JAK) inhibitors, a contemporary appraisal of the clinical burden and impairment in patients with moderate-to-severe AD in the United States (US) is warranted.
- Racial disparities have also been reported in AD patients, including differences in symptom severity and disease burden, particularly among Black and Latinx patients.^{3, 4}
 - An ongoing evaluation of clinical burden and impairment for separate racial groups is also needed.

Methods

- A web-based survey was conducted in June 2023, as part of a discrete choice experiment (DCE), among adults (≥ 18 years) who had (1) been diagnosed with AD for at least one year, (2) self-reported moderate-to-severe AD or experience with systemic therapy, and (3) experienced inadequate response to topical treatments.
- Demographic and clinical characteristics were summarized descriptively, along with productivity/activity burden (i.e., activity impairment, productivity loss, absenteeism, presenteeism) using the Work Productivity and Impairment Activity Index (WPAI).
- Activity impairment data were obtained from all participants; data on absenteeism, presenteeism and overall work impairment were obtained from employed participants.
- Mean scores were calculated for each WPAI outcome, along with the proportion of participants experiencing any work or activity impairment due to AD.
- Analyses were reported overall and separately for White, Black, and Asian participants (no statistical comparisons were conducted).
 - Thirteen participants were classified as having an 'Other' or 'Unknown' race and were excluded from the sub-group analysis due to sample size limitations.

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Disclosures

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