

**Supplemental materials for: Prevalence and Impact of Psychosocial Comorbidities on Health Status
Among Respondents With Moderate-to-Severe Atopic Dermatitis in the United States: A Cross-
Sectional Study of the 2017 US National Health and Wellness Survey**

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Supplementary Table 1. Adjusted mean quality of life, work and activity impairment, and healthcare resource utilization by severity of sleep difficulties

	Severity of sleep difficulties, mean (95% CI)			
	No sleep difficulties	Mild	Moderate	Severe
Health utilities (EQ-5D-5L)	0.67 (0.61–0.74)	0.63* (0.56–0.69)	0.60* (0.53–0.67)	0.51* (0.44–0.58)
Absenteeism (WPAI-GH), %	18.69 (7.94–29.44)	17.03 (6.02–28.04)	20.86 (9.78–31.94)	32.14* (20.13–44.16)
Presenteeism (WPAI-GH), %	37.59 (23.53–51.65)	44.53* (30.13–58.93)	46.76* (32.27–61.26)	45.69 (29.75–61.64)
Overall work impairment (WPAI-GH), %	44.25 (29.17–59.33)	50.81* (35.37–66.26)	54.47* (38.92–70.03)	54.71* (37.60–71.82)
Activity impairment (WPAI-GH), %	48.27 (37.25–59.28)	57.62* (46.54–68.71)	62.33* (51.06–73.59)	65.34* (53.38–77.30)
Physician visits in past 6 months	11.19 (7.20–17.37)	12.96 (8.38–20.04)	14.53* (9.26–22.78)	17.66* (10.97–28.45)
Hospitalizations in past 6 months	0.87 (0.22–3.42)	0.68 (0.18–2.63)	0.73 (0.18–2.94)	1.17 (0.28–4.95)

ER visits in past 6 months	1.02 (0.35–2.95)	0.82 (0.28–2.35)	1.18 (0.4–3.46)	1.91* (0.63–5.76)
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EQ-5D-5L, EuroQol 5-dimension, 5-level questionnaire; *ER*, emergency room; *WPAI-GH*, Work Productivity and Activity Impairment questionnaire—General Health version.

Adjusted means were calculated based on the results of generalized linear models that controlled for age, sex, race/ethnicity, education, income, employment status, body mass index, smoking status, alcohol use, Charlson comorbidity index, and the presence of other atopic conditions.

* $P < 0.05$ relative to “no sleep difficulties.”

Supplementary Table 2. Adjusted mean quality of life, work and activity impairment, and healthcare resource utilization by PHQ-9 depression severity

	PHQ-9 depression severity (95% CI)				
	None/ minimal	Mild	Moderate	Moderately severe	Severe
Health utilities (EQ-5D-5L)	0.75 (0.68–0.83)	0.68* (0.60–0.75)	0.64* (0.57–0.72)	0.59* (0.51–0.66)	0.49* (0.42–0.57)
Absenteeism (WPAI-GH), %	17.19 (2.55–31.84)	21.74 (7.34–36.13)	26.61* (11.87–41.35)	35.98* (21.15–50.82)	35.59* (20.40–50.78)
Presenteeism (WPAI-GH), %	34.49 (15.95–53.03)	44.06* (25.81–62.30)	55.88* (37.21–74.54)	60.81* (42.02–79.59)	65.51* (46.23–84.78)
Overall work impairment (WPAI-GH), %	42.42 (22.76–62.09)	53.07* (33.72–72.42)	67.10* (47.30–86.89)	73.65* (53.73–93.58)	76.49* (56.05–96.93)
Activity impairment (WPAI-GH), %	33.87 (21.51–46.23)	45.23* (32.94–57.52)	53.82* (41.53–66.11)	64.16* (51.58–76.75)	70.81* (58.17–83.44)
Physician visits in past 6 months	7.72 (4.76–12.50)	10.45* (6.52–16.75)	10.89* (6.73–17.65)	14.27* (8.76–23.25)	17.74* (10.85–29.00)
Hospitalizations in past 6 months	1.14	1.29	1.25	1.50*	1.43*

	(0.63–1.66)	(0.78–1.80)	(0.73–1.76)	(0.98–2.03)	(0.90–1.96)
ER visits in past 6 months	0.61 (0.21–1.77)	1.38* (0.49–3.84)	1.46* (0.51–4.19)	1.80* (0.62–5.19)	2.94* (1.01–8.54)

EQ-5D-5L, EuroQol 5-dimension, 5-level questionnaire; *ER*, emergency room; *PHQ-9*, Patient Health Questionnaire-9; *WPAI-GH*, Work Productivity and Activity Impairment questionnaire—General Health version.

Adjusted means were calculated based on the results of generalized linear models that controlled for age, sex, race/ethnicity, education, income, employment status, body mass index, smoking status, alcohol use, Charlson comorbidity index, and the presence of other atopic conditions.

* $P < 0.05$ relative to “none/minimal.”

Supplementary Table 3. Adjusted mean quality of life, work and activity impairment, and healthcare resource utilization by presence of anxiety

	Presence of anxiety (95% CI)	
	No anxiety	Anxiety
Health utilities (EQ-5D-5L)	0.76 (0.68–0.85)	0.68* (0.60–0.77)
Absenteeism (WPAI-GH), %	21.13 (6.04–36.22)	23.48 (8.50–38.47)
Presenteeism (WPAI-GH), %	42.96 (23.53–62.38)	47.34 (28.04–66.63)
Overall work impairment (WPAI-GH), %	51.95 (31.09–72.80)	57.63* (36.92–78.35)
Activity impairment (WPAI-GH), %	37.38 (23.77–51.00)	46.10* (32.67–59.54)
Physician visits in past 6 months	6.50 (3.96–10.67)	9.04* (5.54–14.74)
Hospitalizations in past 6 months	1.15 (0.24–5.46)	0.76* (0.16–3.57)
ER visits in past 6 months	0.85 (0.28–2.57)	0.85 (0.29–2.54)

EQ-5D-5L, EuroQol 5-dimension, 5-level questionnaire; *ER*, emergency room; *WPAI-GH*, Work

Productivity and Activity Impairment questionnaire—General Health version.

Adjusted means were calculated based on the results of generalized linear models that controlled for age, sex, race/ethnicity, education, income, employment status, body mass index, smoking status, alcohol use, Charlson comorbidity index, and the presence of other atopic conditions.

* $P < 0.05$ relative to “no anxiety.”

Supplementary Figure 1. Prevalence of sleep difficulties, depression, and anxiety among respondents with moderate-to-severe atopic dermatitis.

