

Impact of Psoriasis Severity on Patient-reported Clinical Symptoms, Health-related Quality of Life, and Work Productivity Among US Patients: Real-world Data From the Corrona Psoriasis Registry

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Background

- Psoriasis is a chronic, immune-mediated disease, with key clinical symptoms including skin itching, pain, and fatigue
- Previous studies have reported that increased psoriasis severity is associated with worsened patient quality of life (QoL) and reduced work productivity¹⁻⁵; however, few studies have examined how the severity measures used in clinical trials are associated with QoL in the real-world setting:
 - One example of such a severity measure is the Investigator's Global Assessment (IGA) mod 2011⁶, which has been used in clinical trials⁷
 - Affected body surface area (BSA) is a severity measure that is widely used by physicians⁸
- The objective of this study is to gain a better understanding of the relationship between disease severity in terms of IGA and BSA and patient-reported outcomes in a real-world setting

Methods

Study Objective:

- To examine the relationship between psoriasis severity and PROs among US patients with psoriasis in the real-world setting

Study Design and Sample Selection:

- Cross-sectional study of adult patients enrolled in the Corrona Registry, an independent, prospective observational registry, between April 2015 and May 2016. All patients included were:
 - At least 18 years old
 - Diagnosed with psoriasis by a dermatologist
 - Initiated a systemic biologic or nonbiologic psoriasis treatment on or within the 12 months preceding the enrollment date

Data Analysis:

- Patient characteristics, clinical characteristics, and PROs (DLQI, EQ-5D, WPAI scores, itching, pain, and fatigue) were assessed by psoriasis severity (BSA and IGA groups, respectively):
 - 4 BSA groups (Mild: 0–5; moderate: >5–10; severe: >10–15; and very severe: >15)
 - 4 IGA groups (Clear/almost clear: 0–1; mild: 2; moderate: 3; and severe: 4)
- Significance testing with analysis of variance was used for continuous variables and chi-square tests for categorical variables
- Multivariable linear regression was used to model the association between disease severity levels and PROs, controlling for age, gender, disease duration, and body mass index at enrollment

Patient, Disease, and Treatment Characteristics

Patient characteristics (n=1,527)

- Mean age was 50.6 years old and 53% were male
- Mean BMI was 30.6 kg/m²
- The majority of patients (65%) were employed (full- or part-time)

Disease characteristics

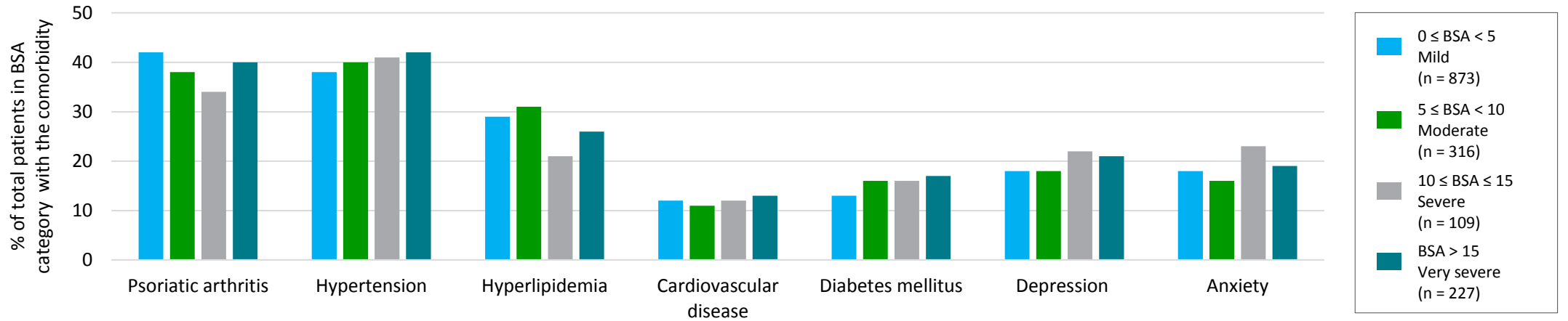
- Mean psoriasis duration was 15.8 years
- A total of 1,525 patients had complete BSA data:
 - Mild: 57%; moderate: 21%; severe 7%; very severe: 15%
- A total of 1527 patients had complete IGA data:
 - Clear/almost clear: 25%; mild: 27%; moderate: 38%; severe: 11%
- Psoriatic arthritis had been diagnosed in 40% of patients

Treatment characteristics

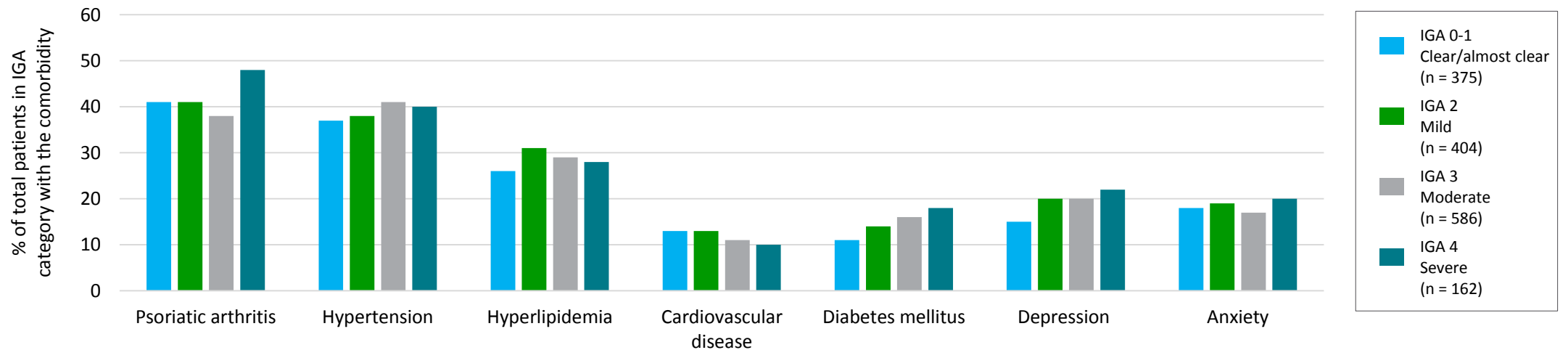
- Biologic experienced: 54%
- Nonbiologic systemic therapy: 46%

Comorbidity Prevalence by BSA and IGA Severity Groups

Comorbidities by BSA Severity Groups



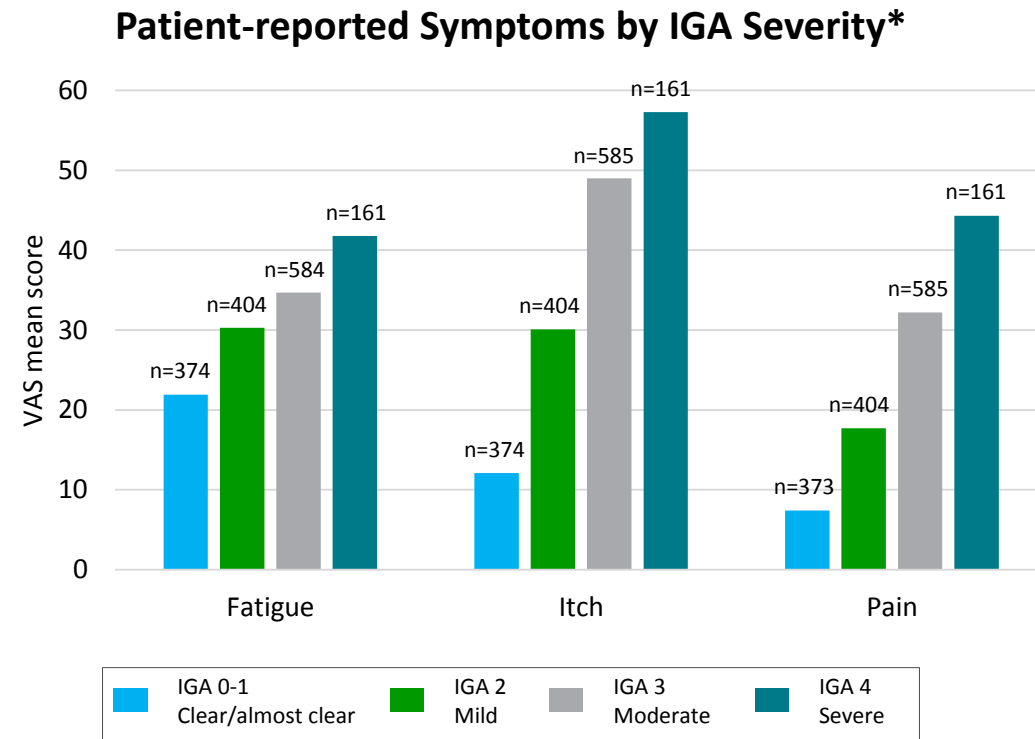
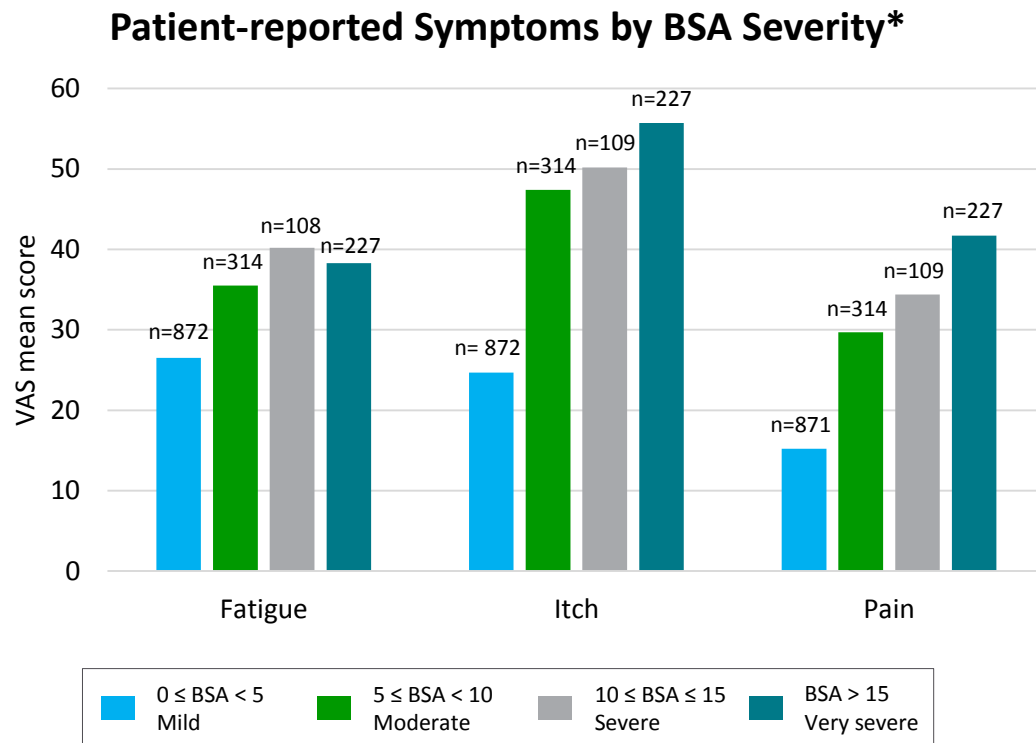
Comorbidities by IGA Severity Groups



Comorbidities were provider-reported.

BSA: body surface area. IGA: Investigator's Global Assessment.

Severity of Self-reported Symptoms Increased With Increasing Disease Severity, as Measured by BSA and IGA



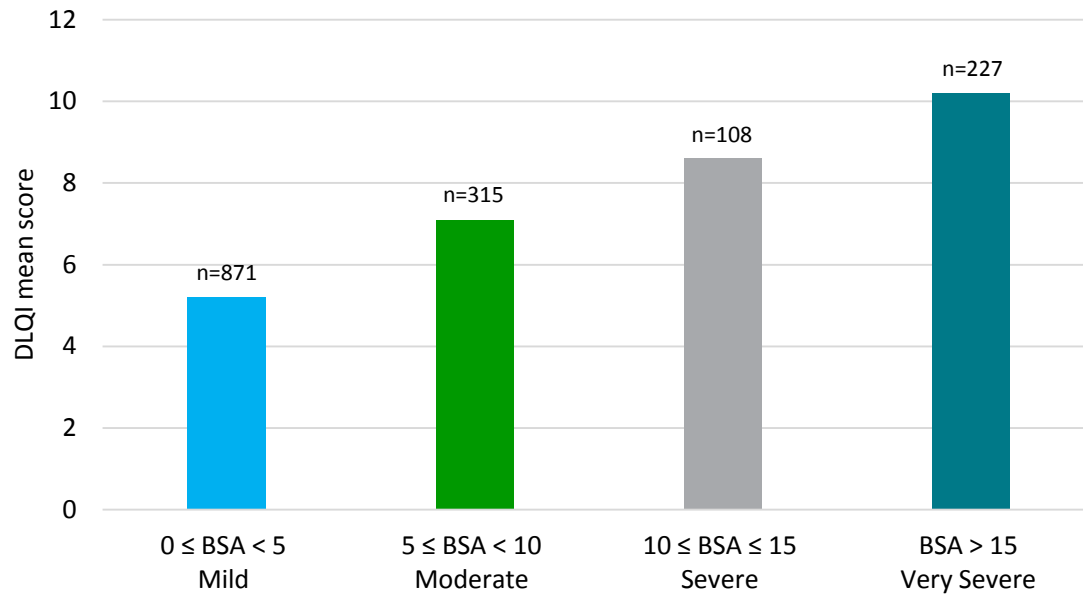
*All comparisons $P < 0.05$

- Regression results confirmed the descriptive results:
 - Increased disease severity was associated with greater mean scores for fatigue, itch, and pain

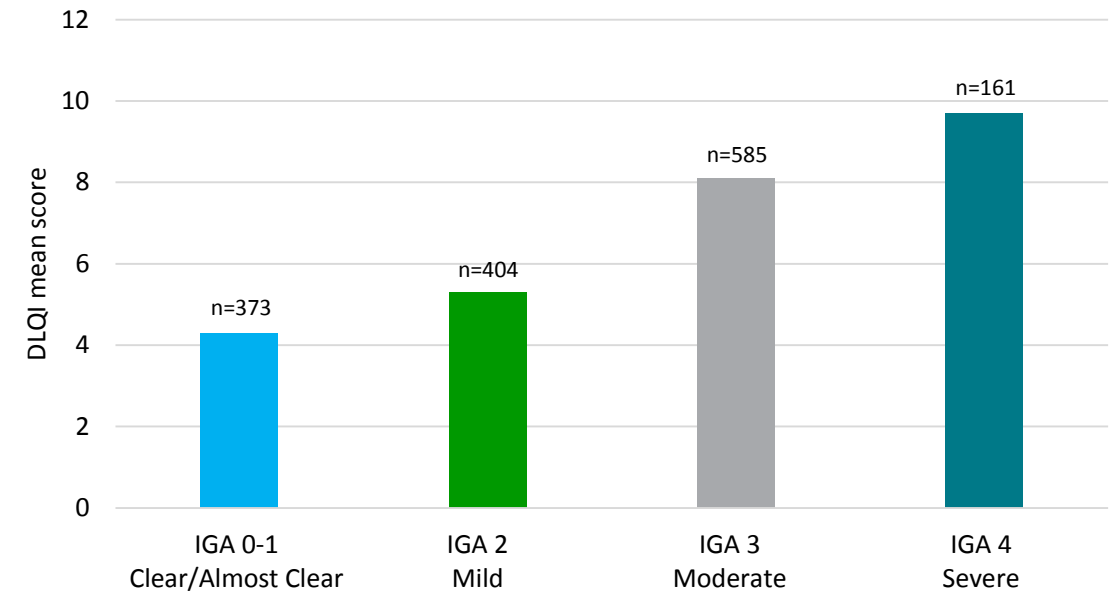
Patients in the Corona registry rated the severity of their symptoms on a VAS. Scores range from 0–100, with 0 = no itch/pain/fatigue and 100 = very severe itch/pain/fatigue. BSA: body surface area. IGA: Investigator’s Global Assessment. VAS: visual analog scale.

Mean DLQI Scores Increased With Increasing Disease Severity, as Measured by BSA and IGA

DLQI Scores by BSA Severity*



DLQI Scores by IGA Severity*



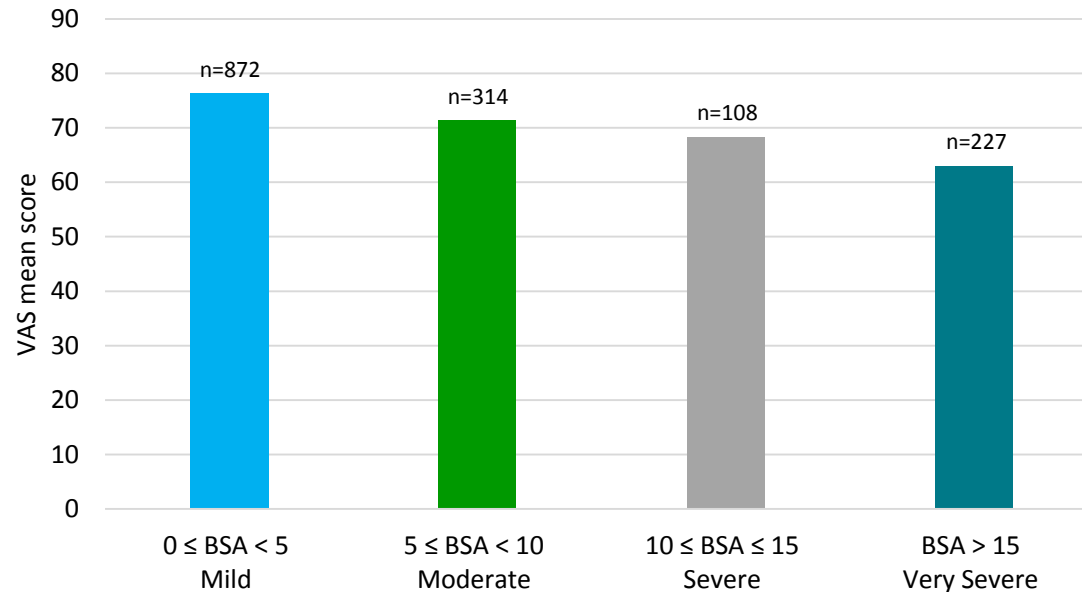
*All comparisons $P < 0.05$

- Regression analysis results confirmed the descriptive results:
 - Increased disease severity was associated with higher DLQI scores

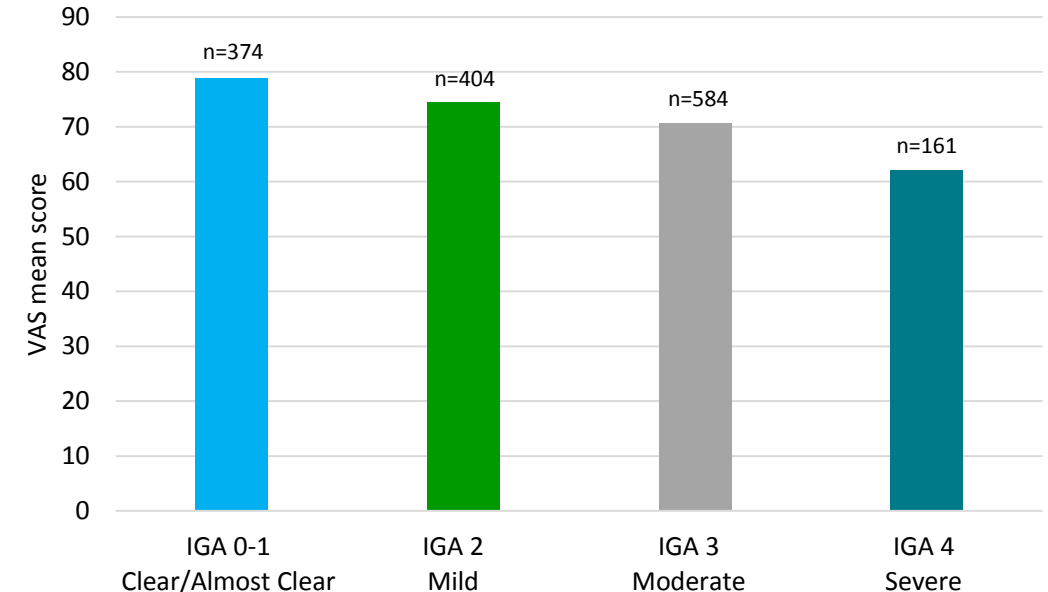
Overall DLQI scores range from 0–30; higher scores indicate that psoriasis has a greater effect on the patient’s life (lower quality of life).⁹
BSA: body surface area. DLQI: Dermatology Life Quality Index. IGA: Investigator’s Global Assessment.

EQ-5D Decreased With Increasing Disease Severity, as Measured by BSA and IGA

EQ VAS by BSA Severity Group*



EQ VAS by IGA Severity Group*



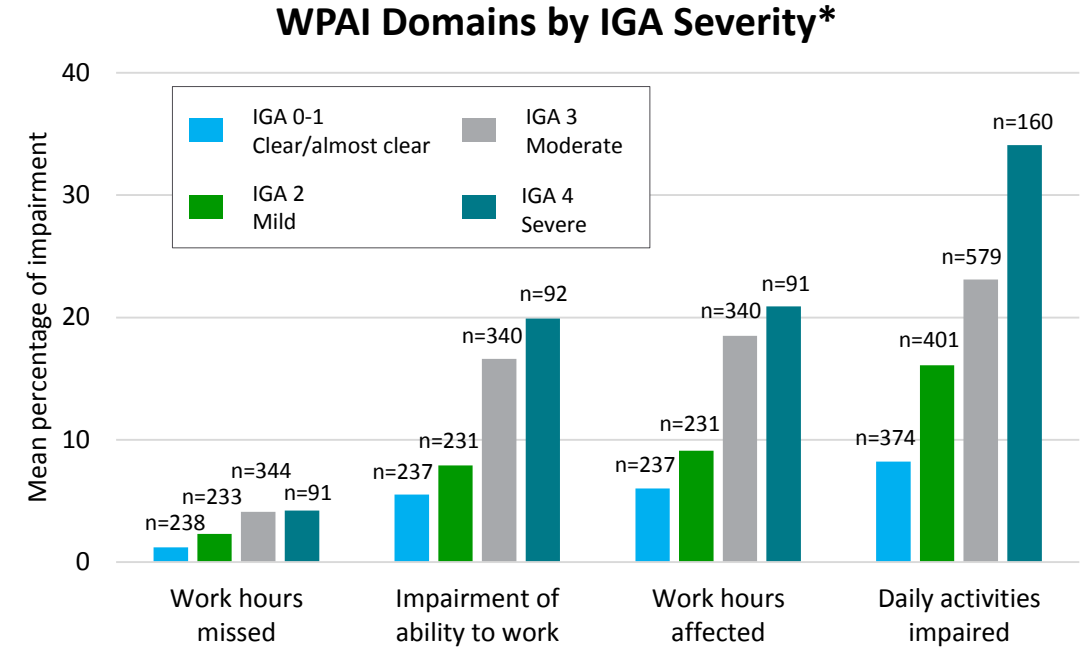
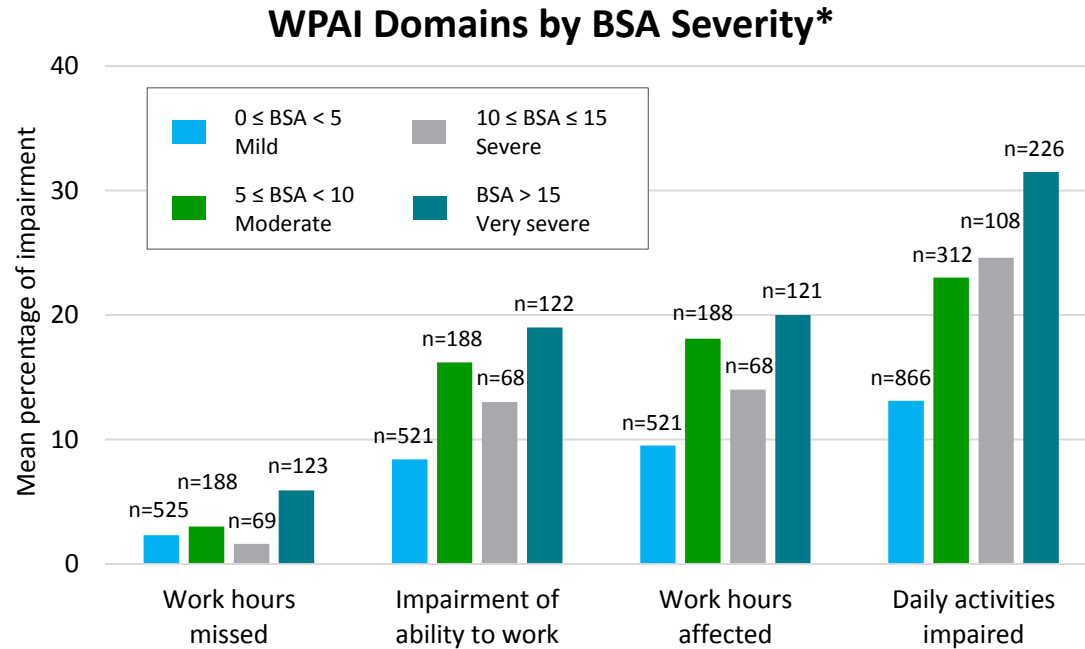
*All comparisons $P < 0.05$

- Regression analysis results confirmed the descriptive results:
 - Increased disease severity was associated with lower EQ VAS mean scores

EQ-5D includes EQ VAS (EuroQol Visual Analog Scale), a self-rated “health state today” measure. EQ VAS is scored from 0–100, with 100 = “best imaginable health state” and 0 = “worst imaginable health state”; the recall period is 1 day.¹⁰

BSA: body surface area. EQ-5D: EuroQol 5-dimension questionnaire. IGA: Investigator’s Global Assessment.

Work Productivity Impairment Increased With Increasing Disease Severity, as Measured by BSA and IGA



*All comparisons $P < 0.05$

- Regression analysis results confirmed the descriptive results:
 - Increased disease severity as measured by BSA was associated with greater mean percentage of impairment of ability to work and daily activities impaired
 - Increased disease severity as measured by IGA was associated with greater mean percentage of impairment of ability to work, work hours affected, and daily activities impaired

WPAI scores 4 subdomains, which measure work hours missed (absenteeism), impairment of ability to work, work hours affected (presenteeism), and daily activities impaired. WPAI scores range from 0–100%; higher scores indicate greater impairment and less productivity.¹¹

BSA: body surface area. IGA: Investigator's Global Assessment. WPAI: Work Productivity and Activity Impairment.

Conclusions

- Increased psoriasis disease severity is associated with greater patient-reported symptom severity (pain, itching, and fatigue) and lower quality of life and work productivity in a real-world setting

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