

Patient-Reported Outcomes as Important Predictors of Apremilast Persistence – A Pooled Analysis of Real-world Data

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Background & Objective

- Apremilast (APR) is a systemic treatment option for adult patients with moderate to severe chronic plaque psoriasis who have failed or have a contraindication to other systemic therapies
- The individual treatment experience should be considered to improve treatment persistence in patients initiating APR
- Study objective:** Identify factors that influence APR persistence, with a focus on patient-reported outcomes, to improve persistence by accounting for patient treatment preferences in routine care

Study Design & Patient Population

Design: Pooled analysis with four observational, longitudinal, multicenter studies, two of which collected data prospectively (REALIZE¹, OTELO²) and two of which collected data retrospectively (APPRECIATE³⁻⁴, DARWIN⁵)

Patients: 1,198 patients from 10 European countries with moderate to severe plaque psoriasis initiating APR in clinical practice

Outcome: APR persistence at 6 (±3) months post-initiation (yes/no)

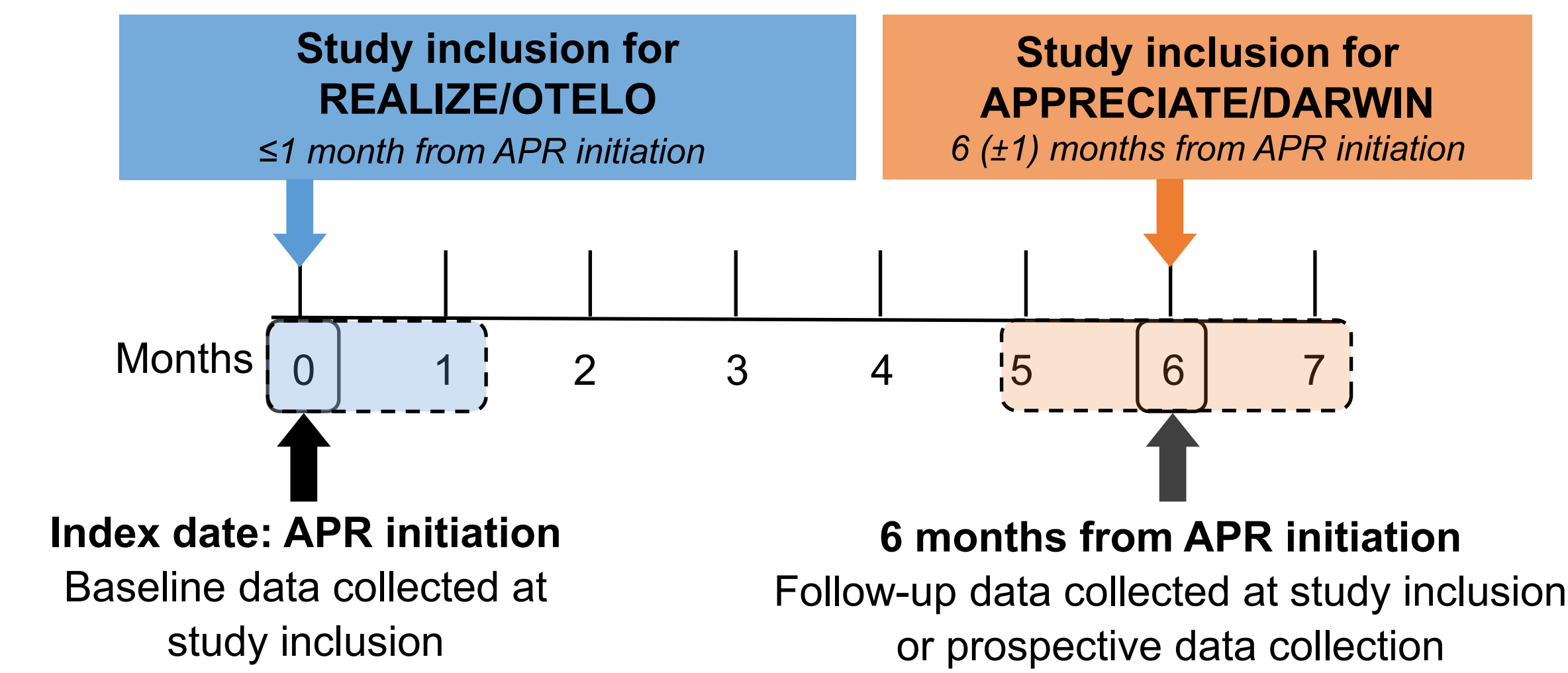
Analysis: Multivariate backwards elimination logistic regression (**full model** included all primary/secondary predictors noted below; **final model** included TSQM-9 global score, adverse events [AEs], prior psoriasis treatment and study type)

Primary predictors: Patient-reported 6-month patient benefit index (PBI) and 3 treatment satisfaction scores (Treatment Satisfaction Questionnaire for Medication, TSQM-9)

Secondary predictors: Sex, age, BMI, prior treatment type, prior treatment quantity, comorbidities quantity, time to APR initiation from psoriasis diagnosis, special areas (yes/no), baseline Psoriasis Area and Severity Index (PASI), baseline Dermatology Life Quality Index (DLQI), AEs (yes/no), study type (prospective/retrospective)

Limitation: Timing of longitudinal data collection, survey questions, and missingness varied by study type

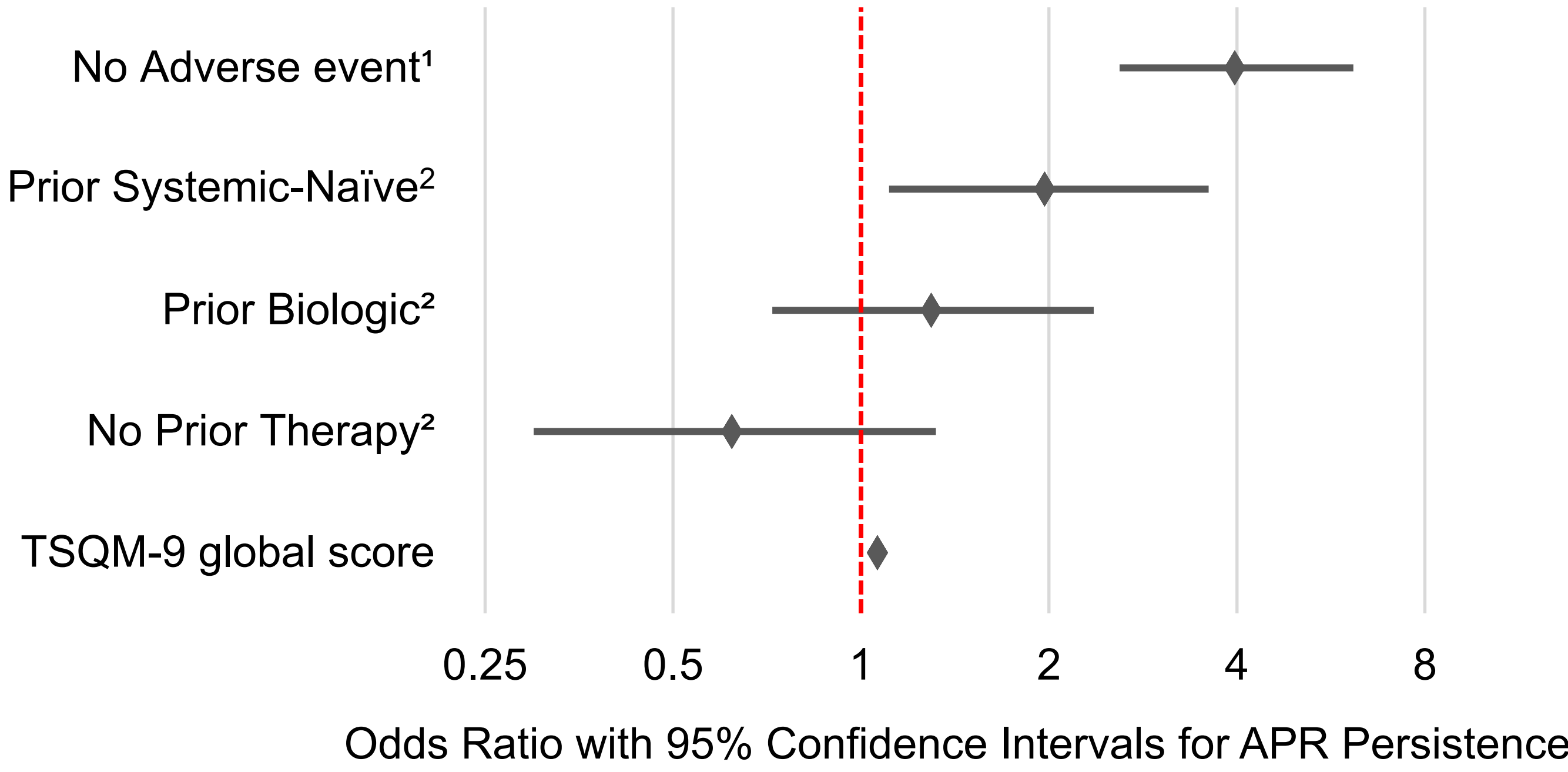
Figure 1. Study Schema



Results: Significant Predictors of APR Persistence

Figure 2. Predictors of 6-month Apremilast Persistence

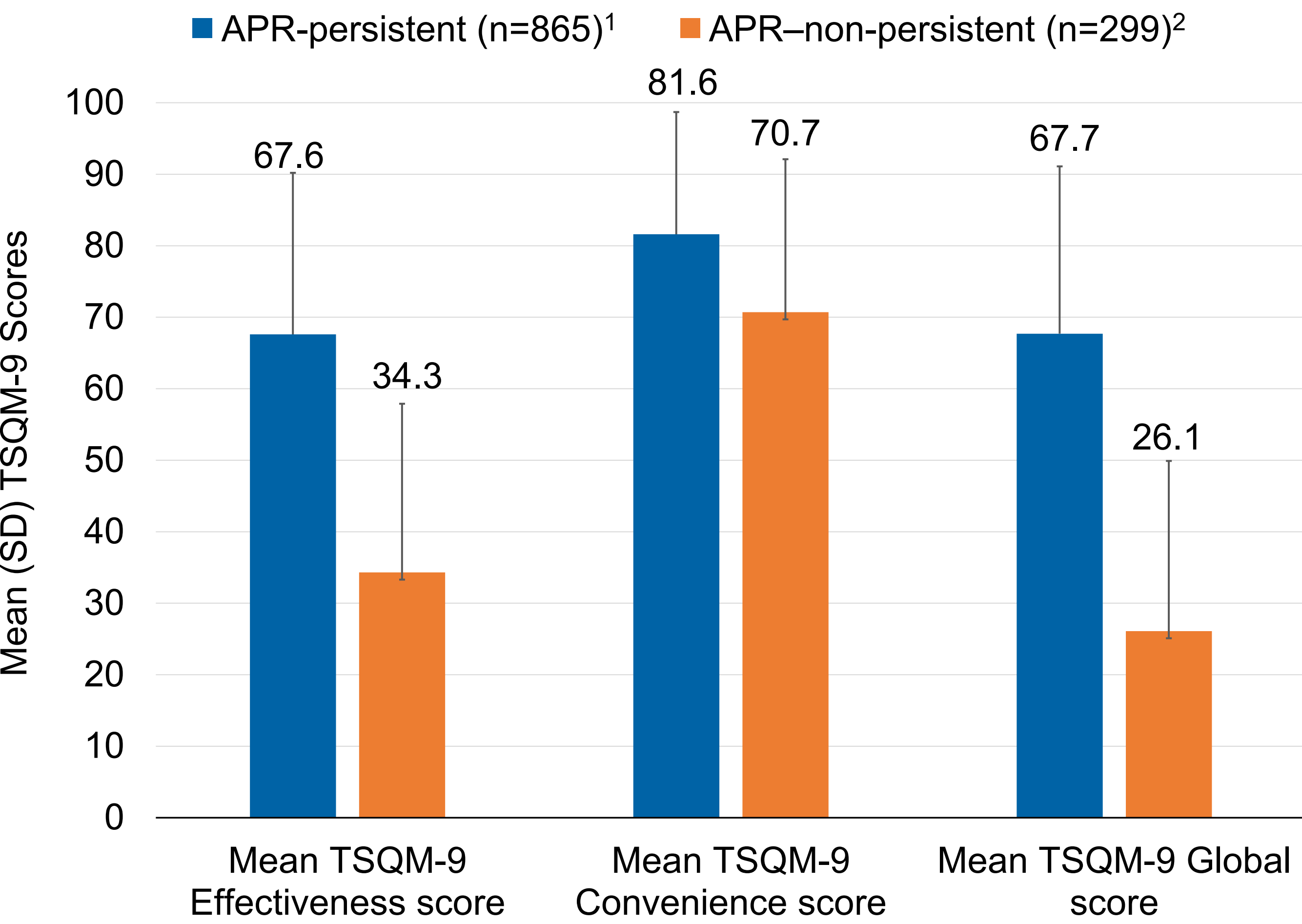
Patients who reported higher treatment satisfaction (TSQM-9 global), did not experience adverse events (AEs), or were systemic-naïve before APR initiation were more likely to persist on APR at 6 months



The correlation between TSQM-9 global satisfaction score and PBI was high (R=0.747), likely leading to exclusion of PBI as a predictor of APR persistence, even though PBI scores were significantly different between persistent (mean [SD] 2.8 [1.1]) and non-persistent patients (1.3 [1.2]), with t-test p-value <0.001.

Figure 3. Mean TSQM-9 Treatment Satisfaction Scores by Persistence

APR-persistent patients reported higher treatment satisfaction, on average, in all three TSQM-9 sub-scales, particularly the global score (67.7 among persistent vs. 26.1 non-persistent)



References

1. Jullien et al. 2023. 2. Ghislain et al. 2022. 3. Augustin et al. 2021. 4. Herranz et al. 2021. 5. Giofrè et al. 2023

Figure 4. Prior Treatment Experience by Persistence

More APR-persistent patients were systemic-naïve (27.3%) than non-persistent patients (15.7%) prior to APR initiation

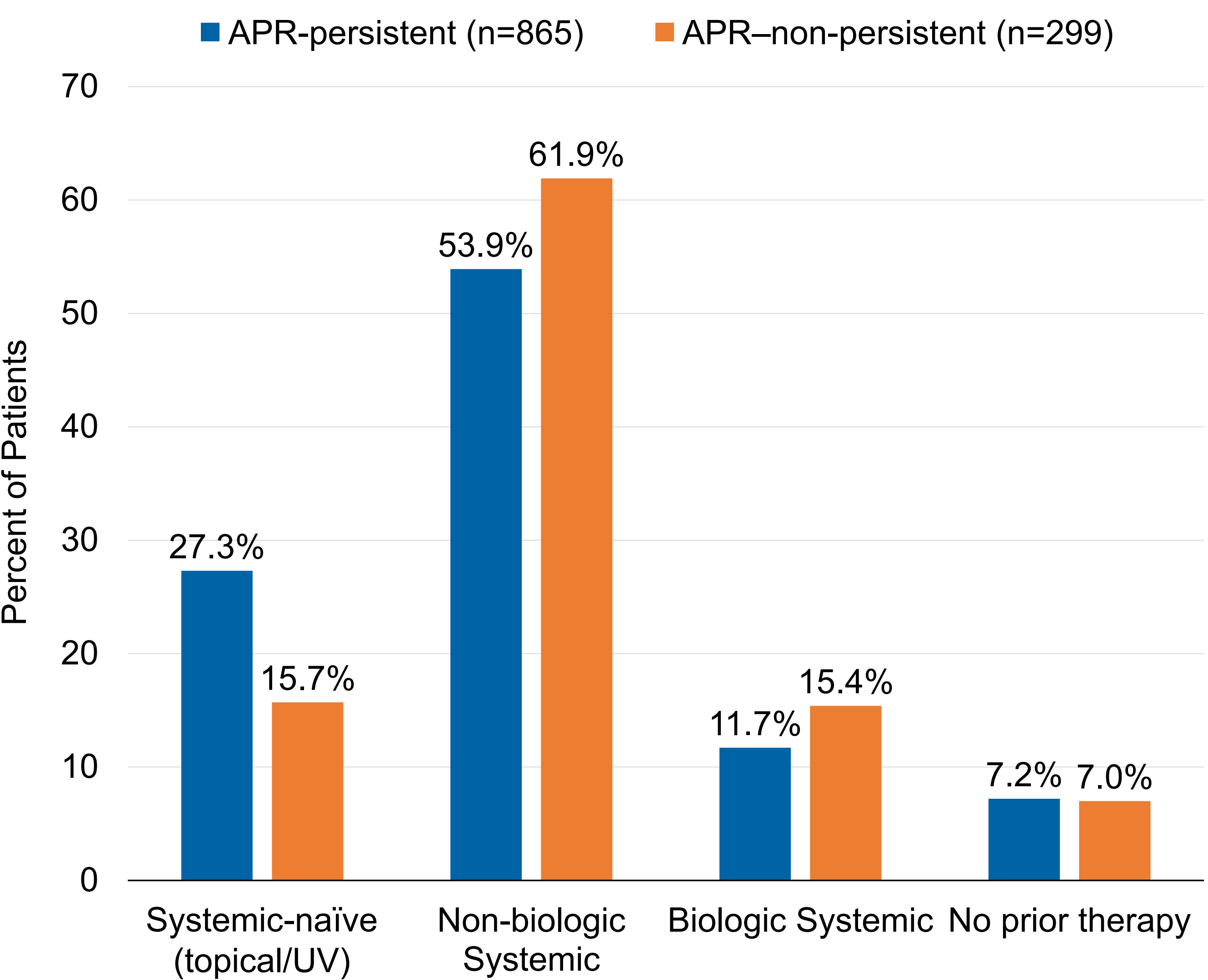
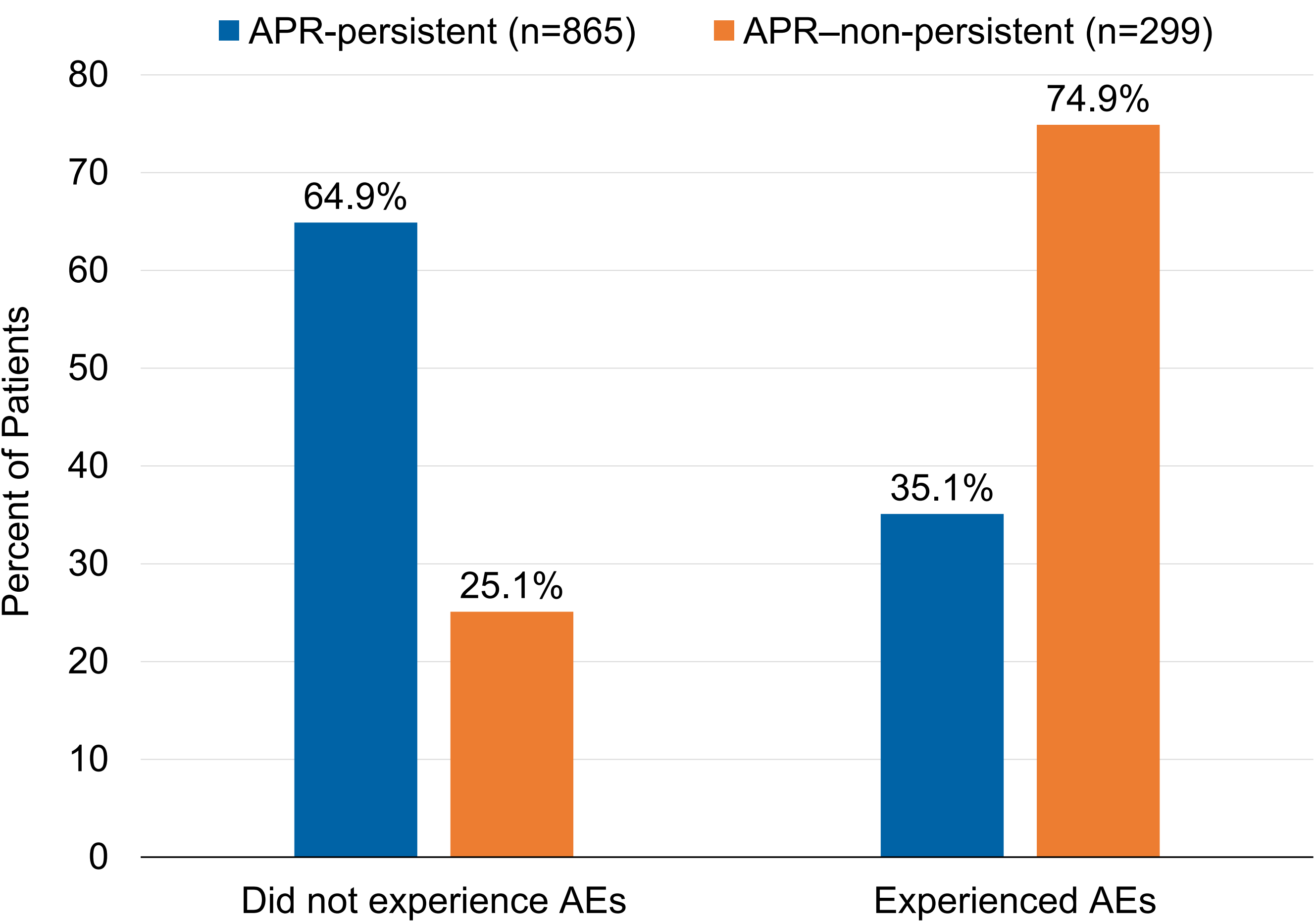


Figure 5. Adverse Event (AE) Reporting by Persistence

More APR-persistent patients did not experience adverse events (64.9%) than non-persistent patients (25.1%) after initiating APR



Acknowledgements

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Key Takeaways

- Higher patient-reported global treatment satisfaction is associated with 6-month apremilast persistence
- Understanding patient-perceived satisfaction and benefits throughout the treatment journey is integral to ensuring persistence on psoriatic treatments
- Pooling data from different research designs can be a valuable and economical approach to gathering information, but it can also prove difficult to achieve congruence and carries the risk of loss of information

- Overall, mean age was 52.5 years and 45.9% were female
- Most patients had prior systemic therapy (68.3% overall) and special area involvement (81.2% overall)

Table 1. Baseline Characteristics

Characteristics	Full cohort
N	1,198
Mean age at enrollment (SD)	52.5 (14.8)
Sex, n (%)	
Female	550 (45.9)
Male	648 (54.1)
Prior treatments	
Mean number unique therapies (SD)	2.3 (1.8)
Systemic-naïve, n (%)	296 (24.7)
Systemic-experienced*, n (%)	818 (68.3)
No prior therapy, n (%)	84 (7.0)
At least 1 special area, n (%)	
Yes	973 (81.2)
No	14 (1.2)
Cannot be determined	211 (17.6)
Special areas, n (%)	
Scalp	722 (60.3)
Nails	378 (31.6)
Palmoplantar	321 (26.8)
Face	277 (23.1)
Genital	243 (20.3)

*Non-biologic and biologic