

# Unmet Medical Needs and Treatment Preferences for Systemic Treatments in Patients with Moderate-to-severe Psoriasis: A Cross-sectional Survey Study in China

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## INTRODUCTION

- Roughly 6.3 million people in China suffer from psoriasis<sup>1</sup>, which has a profound impact on patients‘ quality of life, mental and emotional well-being, personal relationships, and comorbidities.<sup>2</sup> Patients with moderate-to-severe psoriasis (msPsO) require systemic treatments to control disease effectively.<sup>3</sup>
- msPsO was mainly treated with oral therapies (methotrexate, cyclosporine, and acitretin) before 2006. The introduction of biologic therapies have substantially changed the therapeutic landscape of msPsO in China.<sup>4</sup>
- The unmet needs and treatment preference of systemic treatments for msPsO in China will help in developing more effective strategies to control the disease.

## OBJECTIVES

- To survey the Chinese patients with msPsO for their previous systemic treatments, unmet needs, and treatment preferences.

## METHODS

### Study design

- A multicenter cross-sectional study
- Patients with msPsO (defined as affected body surface area was 3% or above ) visiting five tier III hospitals across China from March 2023 to May 2023.
- The survey collected patient basic information, previous systemic treatments, and unmet needs of systemic treatments.
- Choice-based conjoint (CBC) questionnaire for treatment preference
  - Development of medication attributes of systemic treatments, including administration route, frequency, the proportion of psoriasis skin lesions area reduced after 1 month / 3 months / 1 year of treatment, the proportion of patients achieved PASI 75, the proportion of treatment effects decline and experiencing severe adverse events requiring hospitalization within 1 year
  - Attractiveness levels of the developed attributes
  - Eight tasks for prescription preferences for the created hypothetic treatments from the random combinations of developed attributes

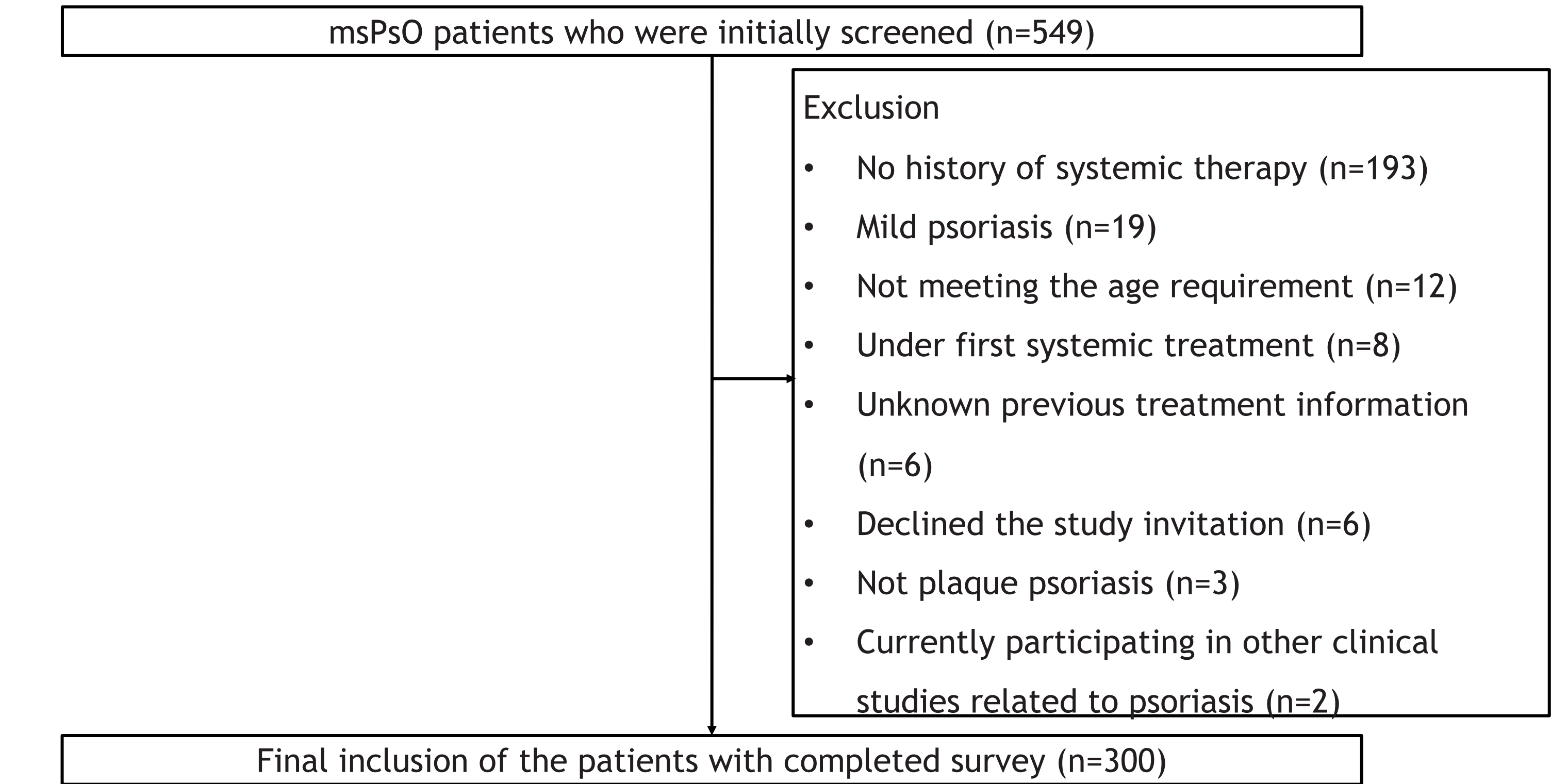
### Survey design

### Statistical data analysis

- Descriptive statistics methods to summarize the surveyed information for patient characteristics, previous systemic treatments, and unmet needs of systemic treatments
- Hierarchical Bayes analysis and preference share simulation analysis to assess treatment preference of oral treatment and subcutaneous injection treatment

## RESULTS

### Patient identification flowchart

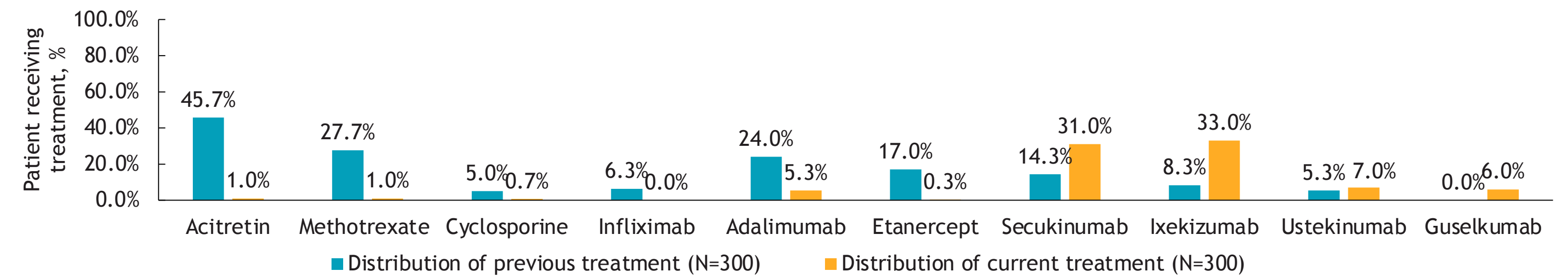


### Patient baseline characteristics

Category	Variable	Mean/n (%)	SD
Demographics	Age (years)	42.8	12.9
	Male	189 (63.0)	
Disease severity	Moderate	176 (58.7)	
	Severe	124 (41.3)	
Skin lesion site	Lower limb	256 (85.3)	
	Trunk	218 (72.7)	
	Scalp	207 (69.0)	
	Upper limb	205 (68.3)	
Quality of life	VAS scale	57.2	24.6

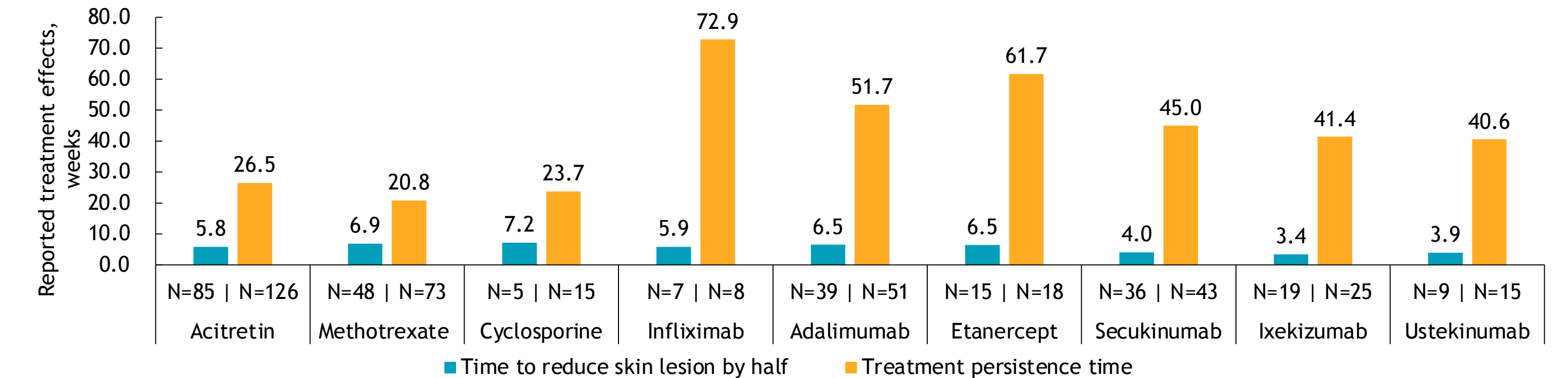
- Chinese patients with msPsO are characterized by a relatively young age, a higher number of patients with moderate disease, multiple skin lesion sites, and a low quality of life.

### Distribution of current and previous systemic treatments



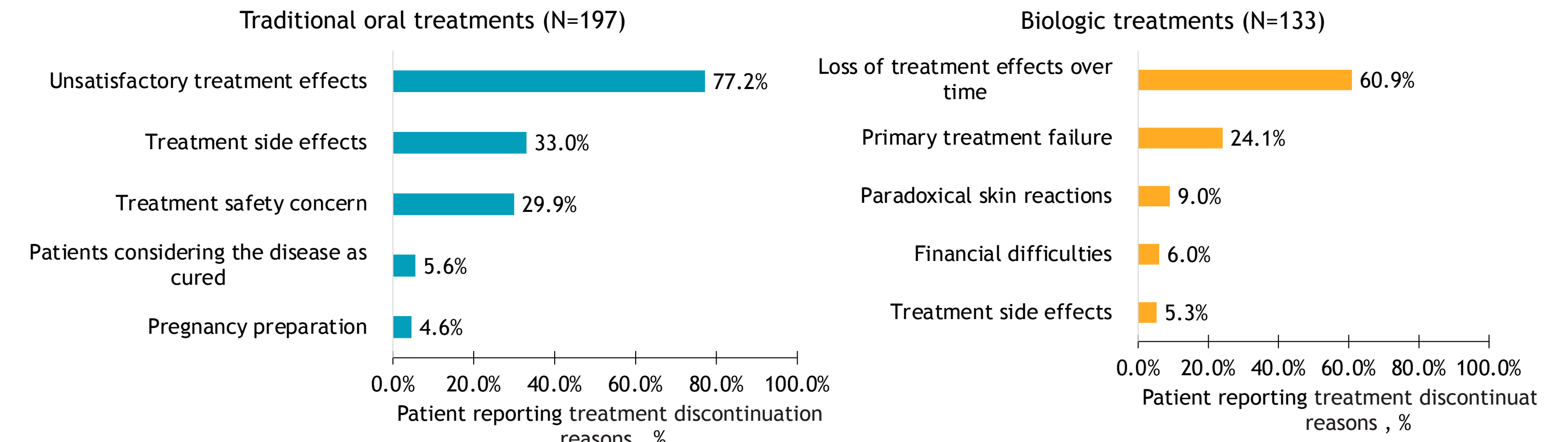
- Acitretin and methotrexate were the main previous treatments, while IL-17 inhibitors are the most commonly used as current treatments in the surveyed Chinese patients with msPsO

### Treatment effects of systemic treatments



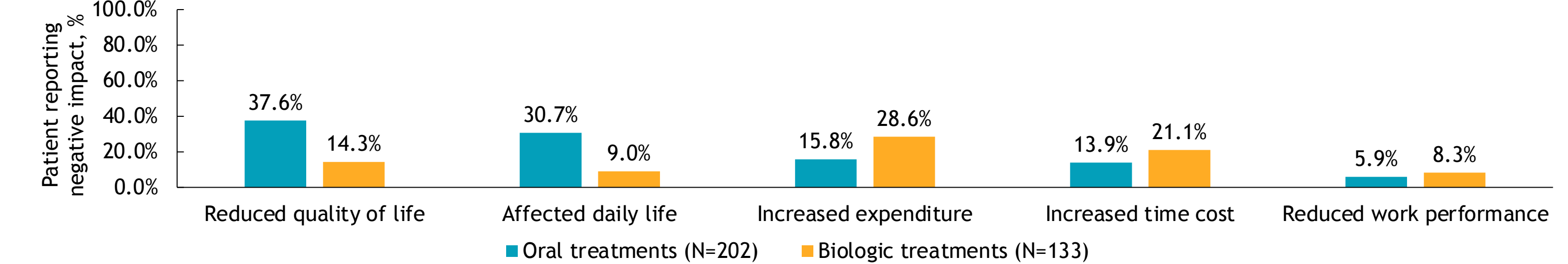
- Traditional oral treatments have a much slower onset of treatment effects and shorter treatment persistence times compared to biologics in the surveyed patients. However, the treatment persistence time for biologics was limited to less than one and a half years in the surveyed patients.

### Treatment discontinuation reasons of systemic treatments



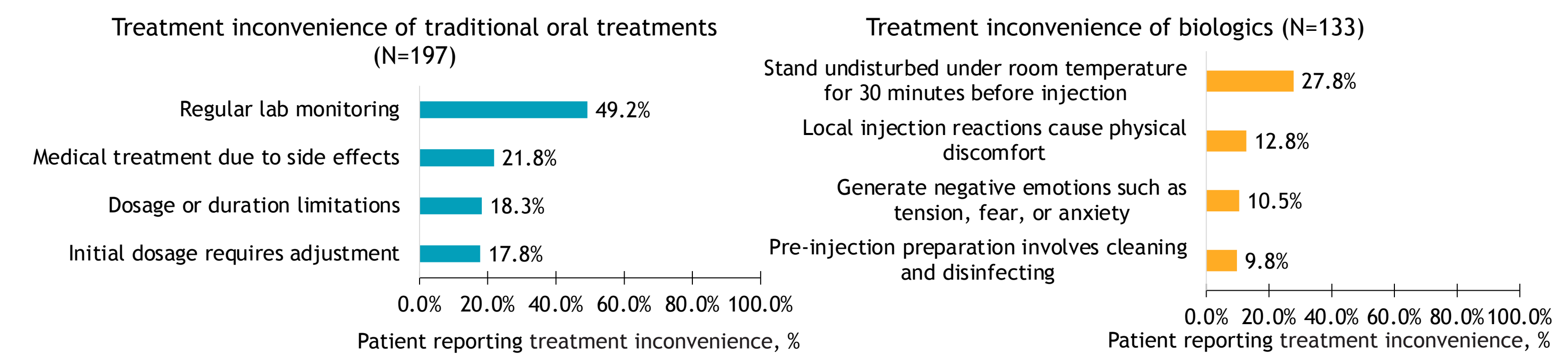
- Unsatisfactory efficacy is the primary reason for discontinuing traditional oral treatment, while the loss of treatment effects over time is the primary reason for discontinuing biologic therapy in the surveyed patients.

### Negative impact of treatment side effects of systemic treatments



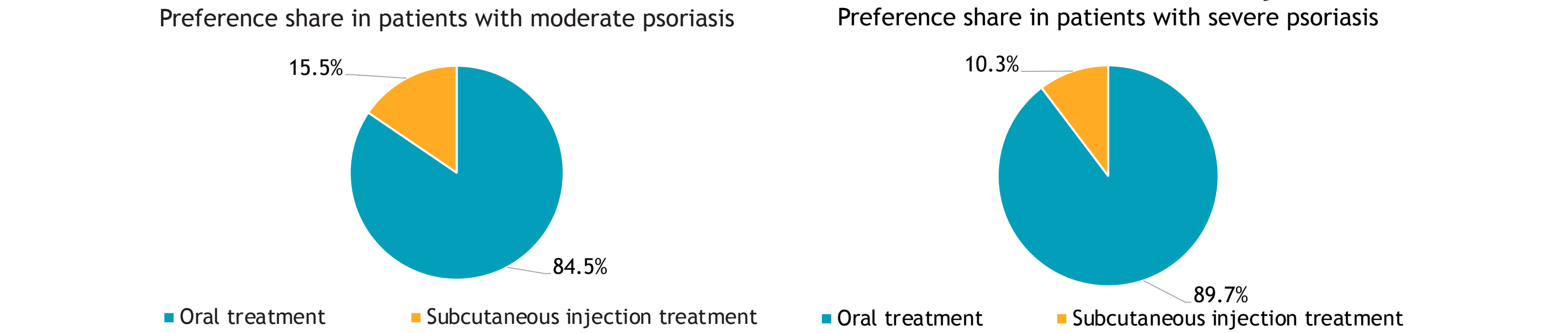
- The treatment side effects of traditional oral treatment mainly impair quality of life and daily life, while the side effects of biologics mainly increase costs in the surveyed patients

### Treatment inconvenience of systemic treatments



- Regular monitoring of treatment side effects is the primary inconvenience of traditional oral treatments, while the time required for administration preparation is the primary inconvenience of biologic therapy

### Preference share of oral treatment from CBC simulation analysis



(Assumptions: Oral treatment was administrated once daily and subcutaneous injection treatment was administrated biweekly. The treatment efficacy and safety were assumed to be the same for both oral treatment and subcutaneous injection treatment.)

- Once-daily oral treatment seems much more attractive than biweekly subcutaneous injection treatments in Chinese patients with msPsO when the two treatments have comparable attributes.

## Conclusions

- The Chinese patients with msPsO reported substantial unmet needs of systemic treatments for treatment effectiveness, safety, and convenience
- When once-daily oral treatments have comparable attributes as biweekly subcutaneous injection treatments, Chinese patients with msPsO prefer oral treatments over injection treatments

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