

Prevalence and Severity of Acne Vulgaris in Female University Students Assessed for PCOS Risk

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INTRODUCTION / BACKGROUND

- PCOS is commonly associated with hyperandrogenism, leading to acne vulgaris.
- Increased androgen levels increase sebaceous gland activity, worsening acne.
- Acne is a known clinical manifestation of hyperandrogenism, but its role as a standalone marker for PCOS risk in young women, especially in community-based university populations, remains unclear.



OBJECTIVES

To assess the frequency, severity, and association of acne vulgaris with PCOS risk status among female university students.

KEY TAKEAWAY

Acne is common in young women regardless of PCOS risk. Severity alone does not significantly predict PCOS risk or diagnosis.

GROUP MEMBERS

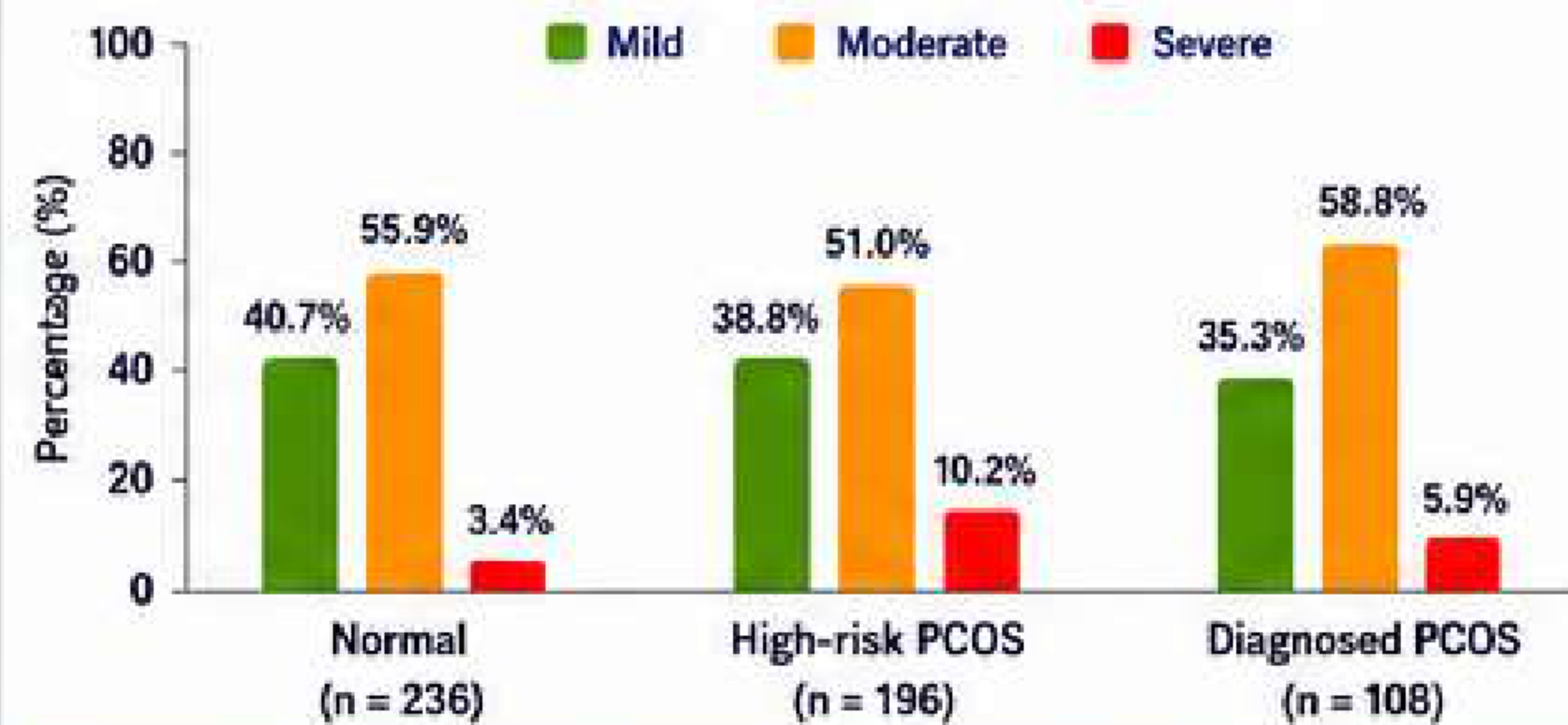
- Harshada Kale
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METHODS

- Cross-sectional study
- 540 female university students aged ≥ 18 years
- Acne assessed using Global Acne Grading System (GAGS)
 - Mild
 - Moderate
 - Severe
- Participants categorized into:
 - Normal
 - High-risk PCOS
 - Diagnosed PCOS based on Ferriman Gallway Scale (FRG) and irregular menstrual cycle
- Symptom-based screening and clinical evaluation
- Differences analyzed using Chi-square test (Significance set at $p < 0.05$)

RESULTS

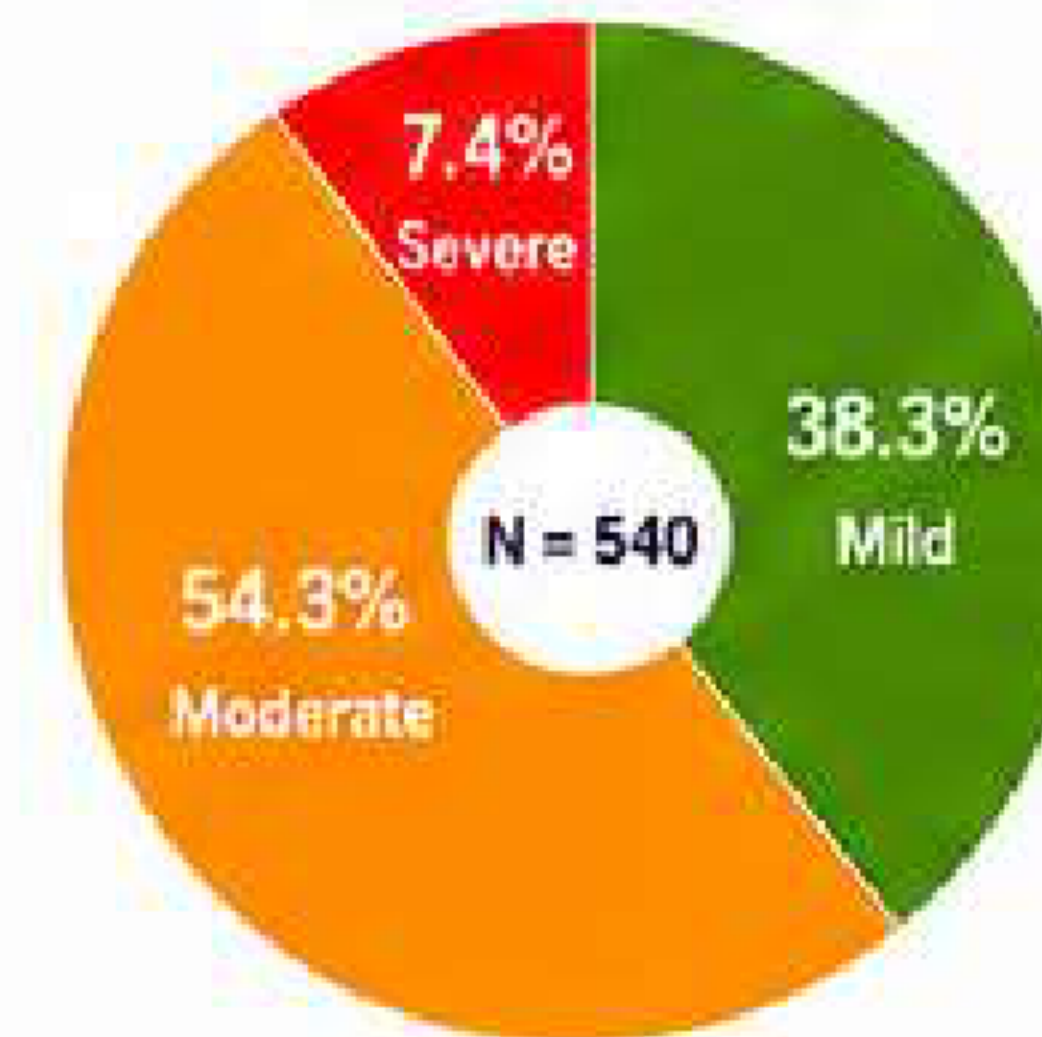
Distribution of Acne Severity Across PCOS Risk Groups



Acne Severity	Normal (n = 236)	High-risk PCOS (n = 196)	Diagnosed PCOS (n = 108)	Chi-square (χ^2)	P-value
Mild	40.7% (96)	38.8% (76)	35.3% (38)	3.05	0.217 (Not Significant)
Moderate	55.9% (132)	51.0% (100)	58.8% (63)		
Severe	3.4% (8)	10.2% (20)	5.9% (7)		

No statistically significant difference in acne severity among the groups ($p = 0.217$)

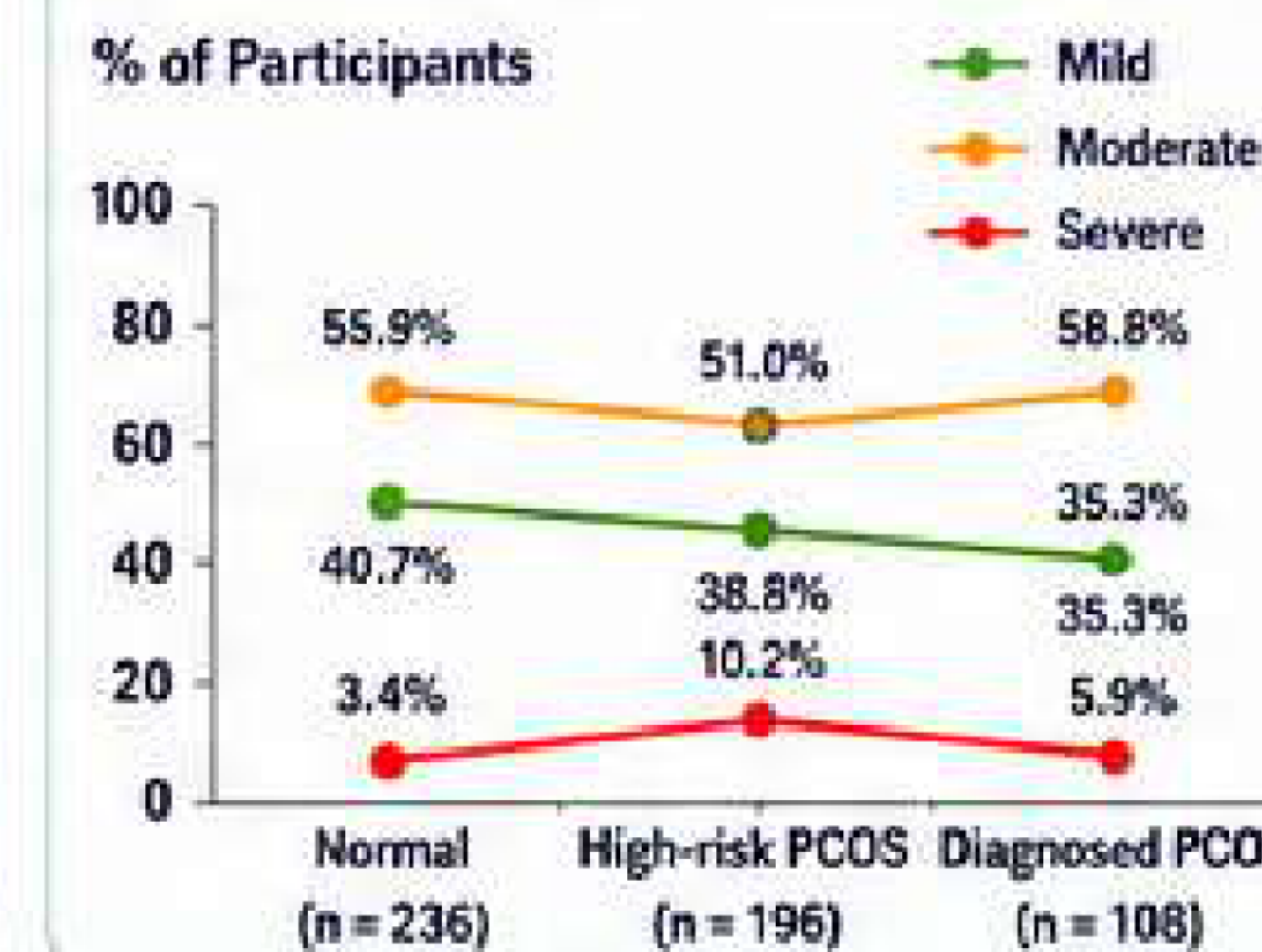
Overall Acne Severity (Among All Participants)



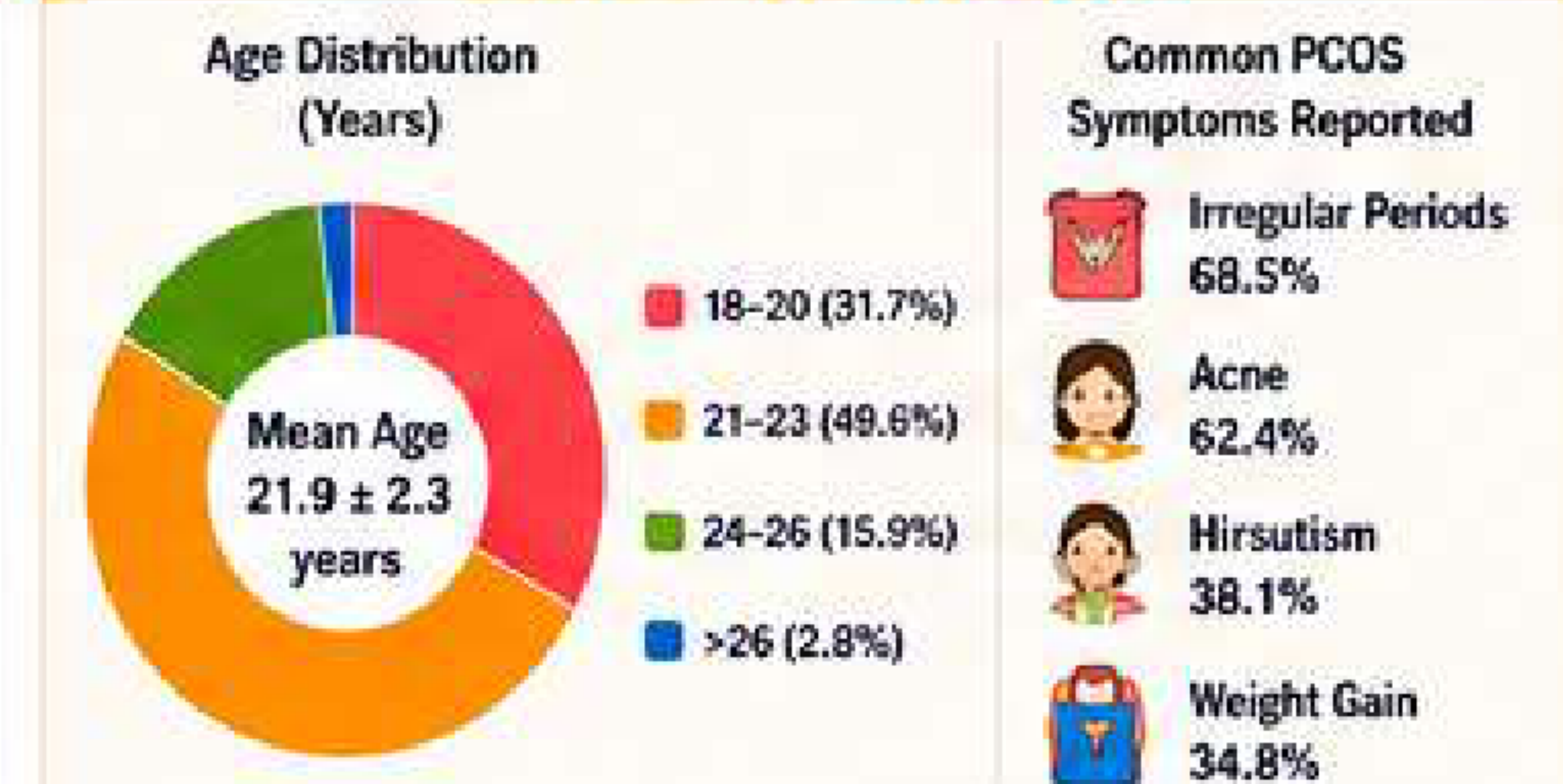
CLINICAL IMPLICATIONS

- Acne severity alone is not a reliable standalone marker for PCOS risk or diagnosis.
- Comprehensive evaluation including menstrual history, FRG score, and metabolic assessment is essential.
- Early identification and holistic management can improve dermatologic and reproductive outcomes.

ACNE SEVERITY TREND



PARTICIPANT SNAPSHOT



FUTURE DIRECTIONS

- Longitudinal studies to assess changes in acne with PCOS progression and treatment.
- Explore the role of biomarkers (androgens, inflammatory markers) in acne and PCOS.
- Evaluate impact of lifestyle and dietary interventions on dermatologic and reproductive outcomes.



CONCLUSIONS

- Acne vulgaris is common among university-aged women irrespective of PCOS risk status, with moderate severity predominating.
- Although severe acne was more frequent in high-risk individuals, acne severity alone did not significantly distinguish PCOS risk or diagnosis.
- Acne should be considered a supportive clinical feature rather than a standalone marker for PCOS risk.**