

Prevalence of Polycystic Ovary Syndrome (PCOS) and burden of disease among women ages 18-44 in the US, National Health and Wellness Survey

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Background

Polycystic ovary syndrome (PCOS) is estimated to impact 5.2% of reproductive age women in the US and it is widely believed to be a condition where 70% of women with PCOS are underdiagnosed worldwide.^{1,2}

PCOS is a complex syndrome, associated with obesity, insulin resistance, hypertension, the leading cause of infertility among young women, and it impacts mental health well-being.³⁻⁵

Objective

This study assesses the prevalence of diagnosed Polycystic Ovary Syndrome (PCOS) and burden of disease among US women age 18-44 years old.

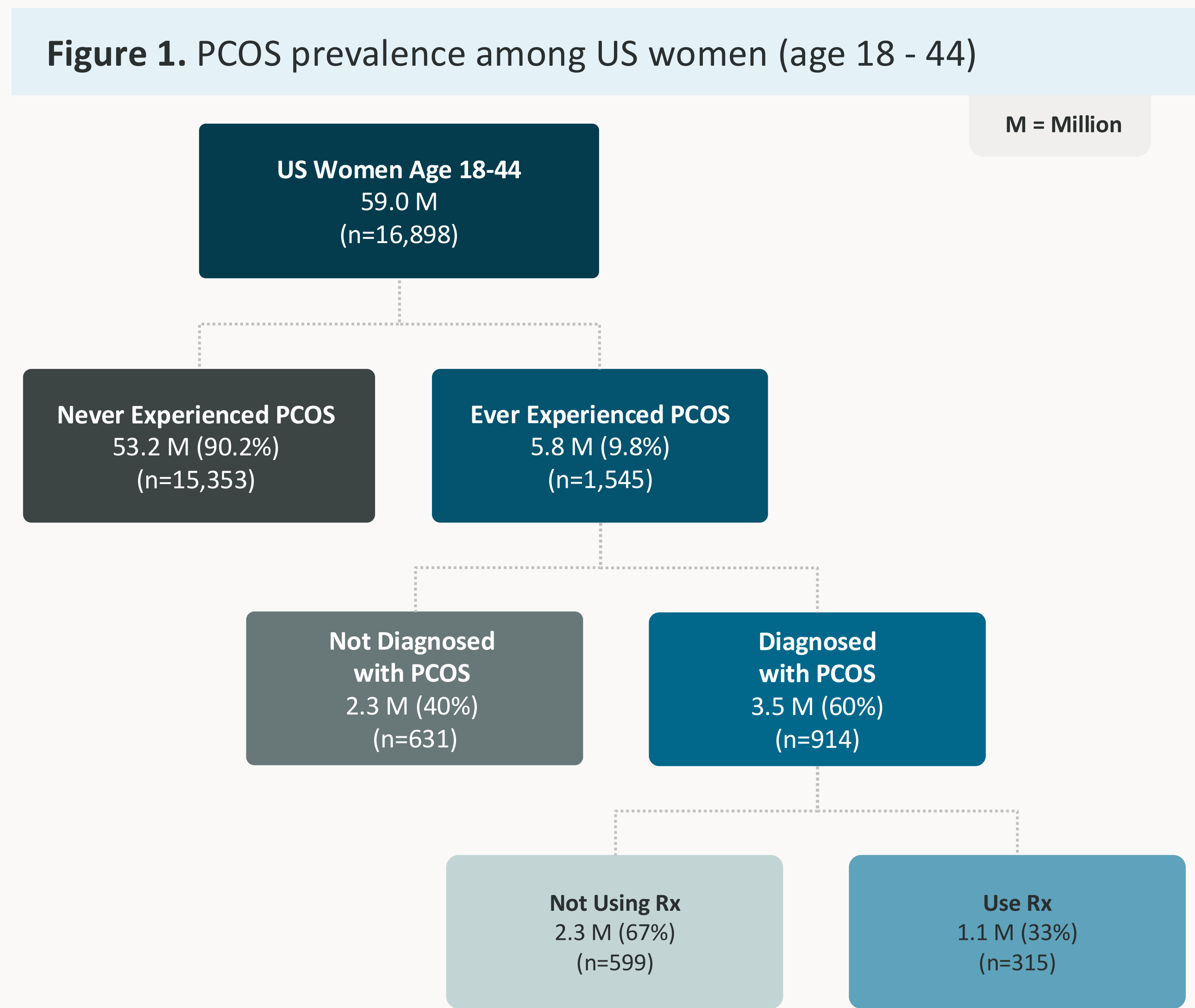
Methods

- This cross-sectional study used self-reported data (total n=75,013) from the 2024 National Health and Wellness Survey (NHWS).
- Adults (age 18+) were recruited from general population panels using quota sampling technique to match the demographic composition of the US based on sex, age, and race / ethnicity.
- Women, age 18 to 44, with self-reported physician diagnoses of PCOS (n=914) were compared to women without PCOS, who never experienced PCOS (n=15,353).
- Prevalence, demographic characteristics, health-related quality of life (QoL, using RAND-36⁶), resource utilization, Charlson Comorbidities Index⁷, work productivity and activity impairment (WPAI⁸), symptoms of depression and anxiety using PHQ-9⁹ and GAD-7¹⁰ scales were reported.
- Results were weighted to the US adult population using the Current Population Survey estimates based on sex, age, race / ethnicity, and education.
- Descriptive and bivariate statistics were conducted across the groups, using chi-square tests and t- tests for categorical and continuous variables, respectively.



Results

- Among US women of reproductive age of 18-44 (59.0M), the lifetime diagnosis of PCOS was 6% (3.5M; n=914) (Figure 1).



- Diagnosed women were white (60.1% vs 52.9%), less college educated (29.0% vs 39.9%), had lower household income (<\$50K) (48.4% vs 40.3%), and were more likely to be overweight/obese (BMI>=25) (79.3% vs 52.2%), taking steps to lose weight (60.3% vs 37.2%), and drink alcohol (67.5% vs 59.8%) compared to women without PCOS (Table 1).

Table 1. Demographics and lifestyle

	Women, age 18-44 & without PCOS	Women, age 18-44 & diagnosed with PCOS
	53.2 M (n=15,353)	3.5 M (n=914)
Mean age	31.5	32.0*
Married	43.0%*	39.3%
College graduate (four year) or more	39.9%*	29.0%
White	52.9%	60.1%*
Annual Household Income < \$50K	40.3%	48.4%*
Overweight/Obese [^]	52.2%	79.3%*
Currently Smoke Cigarette	17.5%	17.1%
Drink Alcohol	59.8%	67.5%*
Mean days exercising in the past month	7.6	7.9
Currently taking steps to lose weight	37.2%	60.3%*

[^]Differing base size: Without PCOS = 48.7 M, n=14,060 and With PCOS = 3.4 M, n=878
*Statistically significant difference, p <0.05.

- Among women with PCOS, resource utilization was significantly higher, QoL was worse using RAND-36 Physical Health Composite (41.2 vs 46.1) and Mental Health Composite (34.6 vs 40.3) T Scores, work productivity (35.4% vs 32.0%) among employed and activity impairment (38.6% vs 29.1%) were significantly higher compared to women without PCOS (Table 2).

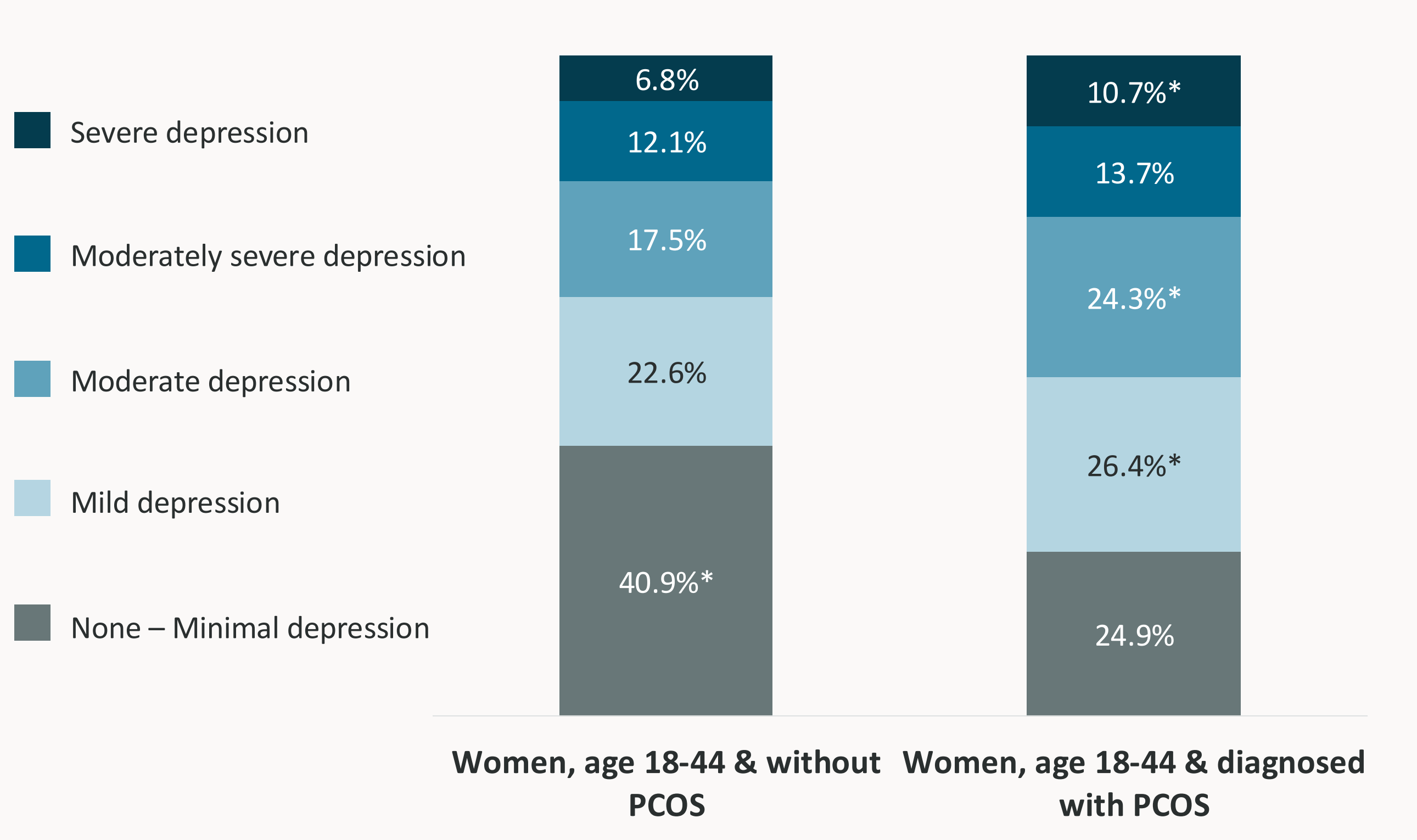
Table 2. Resource utilization in the past 6 months and health economics and outcome measures

	Women, age 18-44 & without PCOS 53.2 M (n=15,353)	Women, age 18-44 & diagnosed with PCOS 3.5 M (n=914)
Visited GP [#] in the past 6 months	40.3%	61.3%*
Any HCP [#] in the past 6 months	69.9%	87.3%*
Mean number of visits in the past 6 months	3.5	7.1*
Visited ER [^] in the past 6 months	20.6%	29.0%*
Hospitalized in the past 6 months	13.8%	15.9%
Out of pocket costs \$1- \$100/month	43.5%	48.5%*
Have health insurance	76.1%	86.9%*
Mean Charlson Comorbidity Index Score	0.2	0.6*
RAND-36		
Physical health composite T score	46.1*	41.2
Mental health composite T score	40.3*	34.6
Work Productivity and Activity Impairment (WPAI)		
All Employed (FT/PT/SE [~]):	80.0%*	64.3%
Mean % Absenteeism [^]	13.2%	12.4%
Mean % Presenteeism [^]	26.8%	31.3%*
Mean % Work productivity loss [^]	32.0%	35.4%*
Mean % Activity impairment	29.1%	38.6%*

*Statistically significant difference, p <0.05.
[^]Differing base size
[#]GP – General Practitioner
[~]FT - Full Time, PT – Part Time, SE – Self-Employed
^{*} HCP – Health Care Provider
[^]ER – Emergency Room

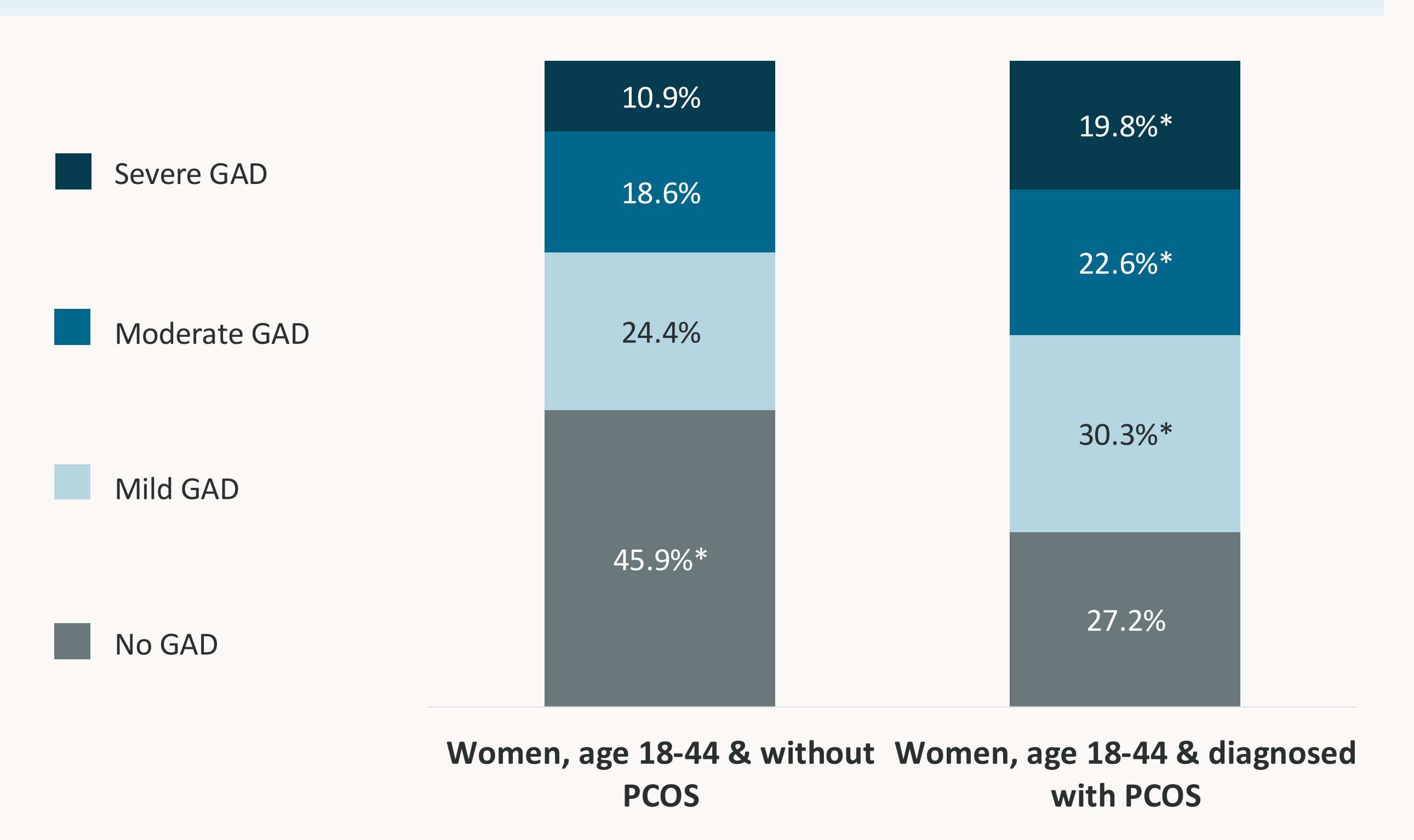
- Women with PCOS exhibited higher rates of moderate to severe depression (48.7% vs 36.4%) and mild to severe anxiety (72.8% vs 54.0%) symptoms using PHQ-9 scales and GAD-7 than women without PCOS (Figure 2 and 3).

Figure 2. Patient Health Questionnaire-9 (PHQ-9)



*Statistically significant difference, p <0.05.

Figure 3. Generalized Anxiety Disorder (GAD-7)



*Statistically significant difference, p <0.05.

Conclusion

The findings highlight substantially higher burden among women diagnosed with PCOS and suggest unmet need.

Increasing awareness and education for both physicians and women could help early diagnosis of PCOS and improve health outcomes.

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