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### Transgender Identity Among Adolescents with PCOS

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# Transgender Identity Among Adolescents with PCOS

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## Children's Mercy Kansas City

### Background

- In 2015, Children's Mercy created the Multidisciplinary Adolescent medicine and Pediatric endocrine PCOS (MAPP) clinic, a collaboration between Divisions of Adolescent Medicine and Endocrinology to provide more comprehensive evaluation and care for patients referred for PCOS
- As the clinic evolved, providers noted what appeared to be an increased prevalence of sexual minority youth among the adolescents presenting for evaluation
- The estimated prevalence of transgender identity among US adolescents is 0.5% to 1.3%
- Some studies have suggested an increased prevalence of PCOS in transmasculine adults before testosterone therapy
- There is a paucity of data describing the relationship between gender dysphoria and PCOS in adolescents

### Methods

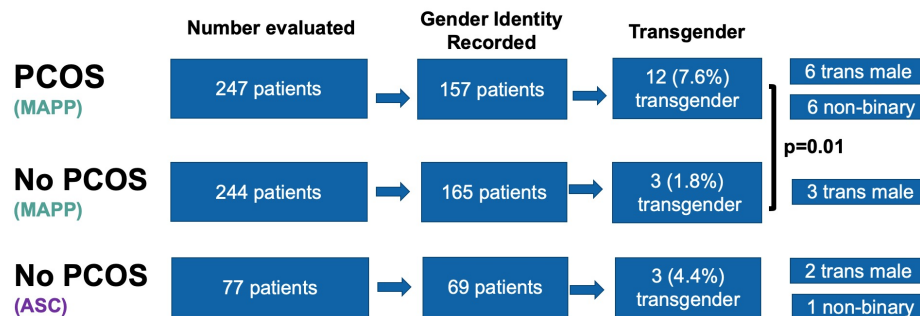
- Secondary data analysis of adolescents evaluated in MAPP clinic from 2015 to 2020
  - PCOS n=247 (NIH criteria)
- Two Comparison groups from 2015 to 2020
  - MAPP clinic **no PCOS**, n=244
  - Adolescent Specialty Clinic (ASC) **no PCOS**, n=77
- Variables analyzed included gender identity, androgen levels, Ferriman-Gallwey scores (clinical hirsutism score), history of anxiety, depression, and suicidality
- Groups were compared using chi-square and Wilcoxon rank sum tests. Gender identities self-reported as male, fluid/both or non-binary were pooled into the transgender category

### Clinical characteristics

	PCOS MAPP, n=247	No PCOS MAPP, n= 244	No PCOS ASC, n =77
Age at menarche (years), mean (SD)	12.07 (1.40)	12.15 (1.33)	12.33 (1.45)
Gyn age (years), mean (SD)	4.23 (1.88)	3.60 (1.65)**	3.55 (1.62)**
BMI (kg/m2), mean (SD)	34.41 (8.41)	31.53 (8.83)**	24.32 (5.21)**
Total testosterone (ng/dL), median (IQR)	54 (46-67)	28 (21-35)**	N/A
Ferriman-Gallwey (FG) score excluding if on OCP and/or metformin median (IQR)	7 (4-10)	4(1-7) **	N/A

\*\*=p <0.05 (versus PCOS) t-test or Wilcoxon Rank Sum Test

### Gender Identity



### Mental health in PCOS

	n	Transgender n (%)	n	Cisgender n (%)	p-value
Depression	11	11 (100)	133	50 (37.6)	<0.01
History of suicidality	11	4 (36.4)	125	14 (11.4)	0.08
Anxiety	9	7 (77.8)	123	44 (35.8)	0.03

### Results

- Within the MAPP clinic, 7.6% (n=12) of patients with PCOS identified as transgender versus 1.8% (n=3) in the comparison group without PCOS (p=0.01)
- Among adolescents with PCOS, gender dysphoria was significantly associated with FG scores (p<0.01), but not with androgen levels
- In patients with PCOS, we found a significantly higher proportion of depression in the transgender group compared to cisgender, 100 vs 38%. There was also significantly higher anxiety in transgender patients compared to cisgender, 78 vs 36%

### Limitations

- Only 2/3 of MAPP patients had gender identity recorded, so there can be selection bias
- Gender identity and anxiety/depression history were collected by private interview without validated screening questionnaires
- FG scores are subjective
- Non-PCOS MAPP patients may still be at higher risk for developing PCOS
- ASC is a consultation clinic, so there can be referral bias regarding mood disorders and gender dysphoria

### Conclusion

- Transmasculine patients may make up a significant proportion of patients with PCOS and treatment goals may not align with general PCOS treatment recommendations
- We recommend routine screening of gender identity in multidisciplinary care as it offers a unique opportunity to individualize treatment and to also address healthcare disparities often seen in transgender youth

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