

Referral Patterns and Patient Characteristics of Men Undergoing Fertility Evaluation: Where Do Our Patients Come From?

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Background

- Male factor infertility is common and morbid, linked to worsened sexual health, mental health and several general medical conditions¹
- American Society for Reproductive Medicine (ASRM) recommends that men with abnormal semen analysis or reproductive history seek male infertility evaluation²
- However, between 18-27% of these men do not undergo male further fertility evaluation³
- We examined referral patterns for male fertility evaluation and differences in semen parameters according to referral sources

Methods

- Retrospective chart review (n=4041)
- All men with primary fertility evaluation with reproductive urologist at Northwestern Medicine between 2002 and 2018
- Demographics, BMI, hormone levels, and semen parameters abstracted from electronic medical record
- Comparison of sperm concentration (oligospermia, severe oligospermia, azoospermia) according to referral source
- Multiple linear regression between referral source to predict total motile sperm count (TMSC)

References

1. Kolettis PN, Sabanegh ES. Significant medical pathology discovered during a male infertility evaluation. *J Urol* 2001;166(1):178–180.
2. Practice Committee of the American Society for Reproductive Medicine. Diagnostic evaluation of the infertile male: a committee opinion. *Fertil Steril* 2015;103(3):e18–25.
3. Eisenberg ML, Lathi RB, Baker VL, Westphal LM, Milki AA, Nangia AK. Frequency of the male infertility evaluation: data from the national survey of family growth. *J Urol* 2013;189(3):1030–1034.

Results

- Most men referred by PCP (62%), self (22.5%), and reproductive endocrinology (REI) (17%)
- Age, race and BMI largely similar across referral sources
- Urology-referred men had the highest LH and FSH
- REI-referred men were most likely oligospermic, PCP were least
- REI-referred men had significantly lower TMSC than almost all other specialties, controlling for demographics and hormone levels

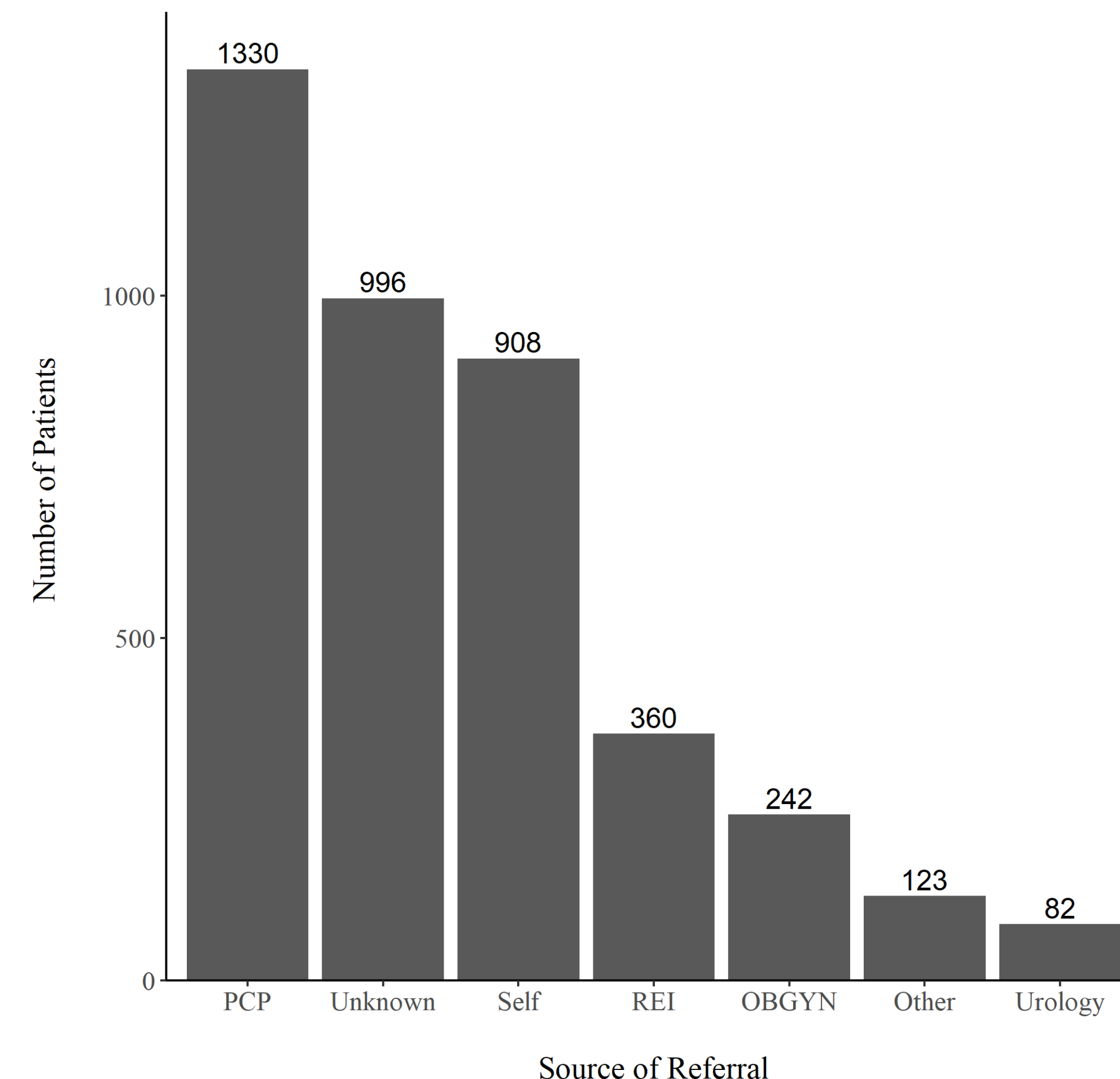


Figure 1: Self-reported source of referral for primary male infertility evaluation

Results (Cont.)

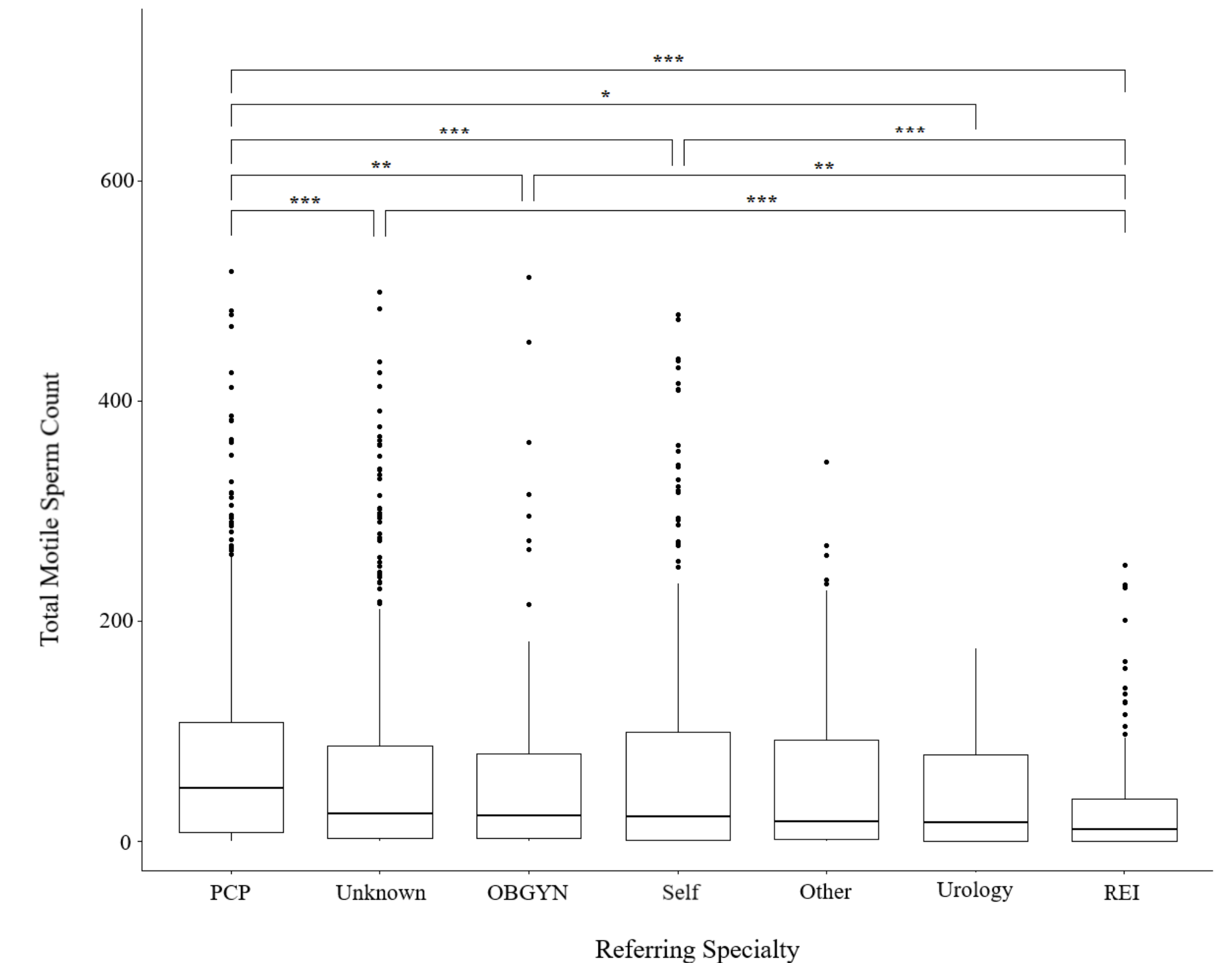


Figure 2: Comparison of TMSC between referring specialties by boxplot. All significant pairwise connections depicted with *, **, *** = p < 0.05, p < 0.01, p < 0.001, respectively

Conclusions

- Self-referral and PCP were the most common referral sources among men presenting for fertility evaluation
- REI patients had highest proportion of oligospermia and lowest TMSC, which may reflect higher threshold to refer for male fertility evaluation
- These results are from a single, academic institution and may not be generalizable to other settings
- These data suggest an opportunity for intradisciplinary collaboration to improve patient access