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Brief Report

Contraceptive Knowledge and Counseling among OB-GYN and Family Medicine Physicians

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ABSTRACT

Introduction. Few studies have examined contraceptive knowledge and counseling confidence among primary care residents and physicians. Authors of this study evaluated education, knowledge, and counseling practices related to contraception among physicians in obstetrics and gynecology (OB-GYN) and family medicine (FM).

Methods. In this prospective, cross-sectional study, current OB-GYN and FM residents, as well as program graduates from the past five years at a single institution, were surveyed. The survey assessed demographics, contraception knowledge, provider confidence, counseling practices, and procedural experience. Responses were included in the analysis if at least one knowledge question was completed.

Results. The final analysis included 45 respondents (8% response rate): 33.3% (n = 15) from FM and 66.7% (n = 30) from OB-GYN. Average knowledge scores did not differ significantly between FM (60%, 12/20) and OB-GYN physicians (70%, 14/20). Attending physicians' average scores were significantly higher (85%, 17/20) than residents (60%, 12/20; p = 0.0014). Most respondents (97.8%, n = 44) reported feeling comfortable counseling patients, and 93.3% (n = 42) felt comfortable performing procedures and prescribing contraceptives. OB-GYN physicians reported greater comfort placing levonorgestrel and Paragard® intrauterine devices (IUDs) than FM physicians (93%, n = 14 vs. 61%, n = 11; p = 0.040). More OB-GYN physicians (6.7%, n = 3) reported performing over 80 Nexplanon® insertions compared to FM physicians (0.0%, n = 0; p <0.0001).

Conclusions. Contraceptive knowledge did not differ significantly between OB-GYN and FM physicians. However, advanced training was associated with greater comfort in both prescribing and performing contraceptive procedures.

INTRODUCTION

Among United States women aged 15-44 who have ever had sexual intercourse, 99% have used at least one method of birth control,[1] and 65% of sexually active women aged 18-49 are currently using contraception.[2] Birth control methods differ in effectiveness, ease of use, and side effect profiles.

Affiliation with Ryan programs and participation in family planning rotations have been shown to improve medical residents' knowledge and skills in contraceptive care and counseling.[3] However, family planning education is not consistently incorporated across all primary care residency programs. In one study, 93% of surveyed primary care physicians agreed that contraception is an important component of preventive care, yet only 73% felt well-educated to prescribe it, 43% felt confident prescribing emergency contraception, and just 16% reported being able to insert an intrauterine device (IUD).[4] These findings suggest that while physicians recognize the importance of contraception, many lack the necessary knowledge or procedural skills. Another study found significant misinformation among providers, particularly about IUDs, which further undermines their comfort and confidence in prescribing.[5]

Recent legal developments, including the Supreme Court decision in *Dobbs v. Jackson Women's Health Organization*, also have significantly affected contraceptive access.[3] Given that primary care physicians are uniquely positioned to provide contraceptive counseling, it is important to assess their knowledge and confidence in prescribing contraception.

Authors of this study evaluated the contraceptive education of current residents and recent graduates, focusing on their knowledge, comfort, and confidence in prescribing contraception, counseling patients, and performing IUD and implant placements.

METHODS

Participants. Eligible participants were residents who graduated between 2019 and 2023 from family medicine (FM), obstetrics and gynecology (OB-GYN), internal medicine, or pediatrics residency programs at a single teaching institution. Exclusion criteria included study investigators, preliminary internal medicine residents, and residents who entered subspecialties outside of primary care.

Instrument. Authors of this prospective study used a cross-sectional, 52-question survey covering:

1. Demographics: including residency year or post-residency status to assess training advancement.
2. Medical school background: including contraception curriculum coverage.
3. Residency training: curriculum coverage, counseling experience, use of different contraceptive methods, and any program restrictions.
4. Information resources: sources used for contraception information.
5. Practice patterns: comfort, confidence, and preferences in prescribing various contraceptive methods.
6. Procedural experience: self-reported numbers of IUD and Nexplanon® placements.
7. Knowledge assessment: 20 questions on contraceptive management in specific scenarios (see supplemental content; available online at journals.ku.edu/kjm).

The survey has not been previously published or externally validated but was pilot tested with individuals from diverse educational and medical backgrounds to ensure clarity and accuracy. Some items were adapted from a prior study on contraceptive recommendations.[6]

Procedures. The study was approved by the local institutional review board (IRB). Surveys were administered electronically, with one residency program receiving paper copies. Data collection occurred from January to February 2022 and April 10 to May 16, 2023. Electronic surveys were hosted in REDCap® (Research Electronic Data Capture), a secure, web-based application hosted by The University of Kansas Medical Center.[7,8] Participants received two reminder emails within a two-week period, each containing a survey link.

Statistical Analysis. Analyses were conducted in SAS® version 9.4 (SAS Institute Inc., Cary, NC). Categorical variables were reported as frequencies and percentages; continuous variables were summarized as means with standard deviations or medians with interquartile ranges (IQR), as appropriate. Associations between categorical variables were tested using likelihood ratio chi-square or Fisher's exact tests. Penalized Firth logistic and multinomial logistic regression models with appropriate link functions were used to examine associations between factors and specific preferences. All tests were two-tailed, with statistical significance set at $p \leq 0.05$.

RESULTS

Out of 561 eligible participants, 45 completed the survey and were included in the final analysis (response rate: 8.0%). Of these, 33.3% (n = 15) were FM residents, and 66.7% (n = 30) were OB-GYN residents or attending physicians; 40.0% (n = 12) of OB-GYN respondents were attendings (Table 1).

Most respondents (88.9%, n = 40) did not attend a Ryan Program–affiliated medical school (Table 2). A greater proportion of FM respondents (93.3%, n = 14) reported receiving a formal medical school curriculum on contraception compared to OB-GYN respondents (66.7%, n = 20; p = 0.015).

Nearly all respondents (88.9%, n = 40) reported receiving formal contraceptive training during residency; only one OB-GYN resident disagreed. Few reported restrictions on long-acting reversible contraception: placement (4.4%, n = 2), prescribing (2.2%, n = 1), or both (2.2%, n = 1). Among post-residency respondents, 83.3% (n = 10) reported no workplace restrictions.

The American College of Obstetricians and Gynecologists (ACOG) was the most frequently cited resource for contraception information (93.3%, n = 42), followed by Centers for Disease Control and Prevention (CDC) guidelines (60.0%, n = 27).

Most respondents reported feeling comfortable with counseling (97.8%, n = 44) and prescribing contraception (93.3%, n = 42) given their responses of 'strongly agree/agree' to such survey questions, with 97.8% (n = 44) indicating they would prescribe all forms. Two OB-GYN respondents (4.4%) reported referring patients for emergency contraceptive pills, and three (6.6%), including one FM respondent, reported they would not prescribe them.

OB-GYN respondents more often reported completing >80 IUD placements (22.2%, n = 10) than FM respondents (0.0%, n = 0; p <0.0001) and >80 Nexplanon® insertions (6.7%, n = 3 vs. 0.0%, p <0.0001). Advancement in training was associated with more IUD and Nexplanon® placements (p <0.0001 for both) and greater comfort placing levonorgestrel and Paragard® IUDs (p = 0.040).

On the 20-item knowledge assessment, average scores did not differ significantly between FM (60.5%, 12.1/20) and OB-GYN respondents (69.5%, 13.9/20). However, attending physicians scored higher (87.0%, 17.4/20) than residents (58.8%, 13/20; p = 0.0014). Nearly all respondents (97.8%, n = 44) reported they could easily find reliable sources when needed.

Table 1. Respondent demographics.

Characteristics	Percent (Frequency) N = 45
Respondent Age in Years	
20 to 30	55.5% (25)
31 to 40	42.2% (19)
41 to 50	2.2% (1)
Respondent Gender	
Female	86.6% (39)
Male	13.3% (6)
Respondent Religion	
Protestant	22.3% (10)
Catholic	17.7% (8)
Other Christian	17.7% (8)
None	40% (18)
Other	2.2% (1)
Respondent Type/Year	
Resident, Postgraduate year 1-2	40% (18)
Resident, Postgraduate year 3-4	33.3% (15)
Post-Residency less than 1 year	4.44% (2)
Post-Residency 1-2 years	8.8% (4)
Post-Residency 3-4 years	13.3% (6)
Respondent Specialty	
Family Medicine (FM)	33.3% (15)
Obstetrics and Gynecology (OB-GYN)	66.6% (30)
Respondent Residency Location	
Kansas City	22.2% (10)
Wichita	77.7% (35)

Table 2. Respondent education experiences.

Characteristic	Percent (Frequency) N = 45
Medical School Location	
West Coast	2.2% (1)
Midwest	88.9% (40)
South	6.6% (3)
International medical graduate	2.2% (1)
Ryan Affiliation	
Yes	8.8% (4)
No	91.1% (41)
Restriction within Residency	
Restriction with placement of long-acting reversible contraception (LARC) only	4.4% (2)
Restriction with prescribing only	2.2% (1)
Restriction of both	2.2% (1)
No restrictions	91.1% (41)
Restriction within Workplace (attending physicians only)	
Restriction with placement of long-acting reversible contraception (LARC) only	16.6% (2)
Restriction with prescribing only	0% (0)
Restriction of both	0% (0)
No restrictions	83.3% (10)
Medical School Contraceptive Education	
Strongly Agree/Agree	77.7% (35)
Neutral	4.4% (2)
Strongly Disagree/Disagree	20% (9)
Residency Contraceptive Education	
Strongly Agree/Agree	88.9% (40)
Neutral	8.8% (4)
Strongly Disagree/Disagree	2.2% (1)

DISCUSSION

Our study found no significant difference in contraceptive knowledge between FM and OB-GYN physicians, suggesting that residency programs in Kansas provide adequate education in this area. This contrasts with the Schreiber study, which reported a significant gap between OB-GYN and FM physicians ($p = 0.02$).[4] The difference may reflect variations in study populations, our work focused on Kansas residency programs, while Schreiber surveyed physicians in Western Pennsylvania.

Knowledge differences between attending and resident physicians suggest that clinical experience plays a key role in building expertise. Despite these differences, 98% ($n = 44$) of respondents reported they could find reliable information when needed. This underscores the value of access to evidence-based resources, access that was briefly jeopardized earlier this year when the CDC's contraceptive guidelines were temporarily removed.[9] Although reinstated with some restrictions, maintaining their availability remains essential.

Both FM and OB-GYN physicians reported high confidence and comfort in contraceptive counseling and prescribing, indicating that current primary care training equips physicians to engage effectively in these conversations. Given that over 40% of unintended pregnancies are linked to contraceptive misuse, effective patient counseling is important.[10]

Our findings also suggest a potential decline in physician autonomy after residency. While 91% of residents reported no workplace restrictions, only 83% of attendings did. This may reflect greater institutional or legal barriers for practicing physicians. The *Dobbs v. Jackson Women's Health Organization* ruling already has been associated with reduced contraceptive services, likely due to state-level changes in access.[11] Continued legislative restrictions could further limit provider autonomy.

We also identified possible barriers to emergency contraceptive access. Nearly 7% of OB-GYN respondents said they would either refer patients elsewhere or not prescribe emergency contraception, lower than the national average of 15% who reported not offering any form since *Roe v. Wade* was overturned in 2022.[12] This raises questions about the factors influencing OB-GYN physicians' prescribing decisions.

Limitations. The main limitation of our study was the low response rate (8%), which may affect generalizability. However, our sample from a large academic institution may support broader applicability. Another limitation was the lack of responses from pediatric or internal medicine physicians, which may reflect less involvement in contraceptive care in those specialties. Additionally, our survey lacked external validation; while it was pilot tested internally, future use and citation could facilitate further validation.

CONCLUSIONS

Despite differences in formal education and procedural experience, respondents demonstrated high confidence and comfort in providing contraceptive care. Standardizing and expanding contraceptive education across specialties may help address remaining gaps and improve patient outcomes.

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Presentations: This study was presented as an oral presentation at The University of Kansas School of Medicine-Wichita Research Forum on April 17, 2025, in Wichita, Kansas. As a result, the conference abstract was published previously as a conference proceeding in the *Kansas Journal of Medicine*.
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