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Knowledge of OBGYN Residents of Fertility Awareness Based Methods of Family Planning

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ABSTRACT

Background: Fertility awareness-based methods (FABMs) of family planning have increased in popularity in recent years. The effectiveness of various methods can vary substantially and can be user dependent. There is limited data regarding the education dedicated to FABM use in residency. We hypothesized that the residency education obtained regarding FABMs would be insufficient in preparing resident physicians in obstetrics and gynecology (OBGYN) to effectively counsel patients regarding FABMs.

Method: A 16-question survey was created in SurveyMonkey and was sent to all accredited OBGYN residency programs in the United States for distribution to current residents. Participants were compensated by being entered into a gift card raffle. The survey was administered from October 2023 to December 2023.

Results: The survey received a response rate of 3%. Less than 40% of the responding residents received formal training in FABMs. Respondents indicated they felt most comfortable describing the calendar method to patients (68% respondents agree or strongly agree when queried if they could describe the method). 80% of respondents could not describe mucus-only, hormone monitoring, or sympto-thermal methods of family planning. When questioned if they were prepared to counsel postpartum patients, who refused contraception, regarding FABM, 58% of respondents indicated they could not assist their patients.

Conclusion: Despite increased use in recent years and multiple options for FABM use, resident education in the application and use of FABMs is lacking. Additionally, residents indicated they are most familiar with the least effective methods (calendar method). A significantly low response rate limits the generalizability of this study and leaves room for further research.

Keywords: Family Planning, Fertility Awareness Based Methods, Resident Education

INTRODUCTION

In recent decades, the use of FABMs for family planning has become increasingly popular. Amongst those in the United States trying to avoid pregnancy, FABM use has risen from 1.1% in 2008 to 2.2% in 2014.[1] More recently, this is closer to 3%, equating to around 1.1 million users or more.[2] These methods were developed with the normal physiology of the female reproductive system in mind and utilize observable biomarkers such as vaginal bleeding, cervical mucus, basal body temperature, and/or urinary hormones as indicators of the hormonal shifts occurring throughout the menstrual cycle. Although these methods are also being used for medical evaluation and treatment, with regards to family planning, they are of particular importance in identifying the fertile window, or the time of the menstrual cycle during which sexual intercourse is likely to result in fertilization. Knowing this, women and couples can then adjust their sexual behaviors according to their desire to avoid or achieve pregnancy.[3,4]

In general, there are six different categories of FABMs, differentiated by the biomarkers observed: calendar-based methods, cervical mucus methods, basal body temperature (BBT) methods, sympto-thermal methods, urinary hormone methods, and the lactational amenorrhea method.[4] Although one calendar-based method called the rhythm method may have historically been the most well-known FABM and its widely varying 14-19% failure rate cited as evidence against recommendation of any FABM, it is not the most effective nor is it representative of other FABMs.[4,5] Whereas 85% of couples engaging in regular acts of intercourse without contraception and without regard for timing will become pregnant in one year,[6] FABMs collectively have a first year typical use pregnancy rate of 15%. Pregnancy rates for individual methods range from 0-4.8% with correct use and 2-22.8% with typical use.[4,5,7] As these rates differ between typical use and correct use for each FABM, it is critical that patients are counseled accordingly and trained appropriately in their chosen method.

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When providing contraceptive counseling, a shared-decision making approach that takes patient preference and individual circumstance into account is preferable.[8] There are many reasons a woman may decide to use an FABM for family planning, including religious beliefs, financial cost, medical contraindications to alternative contraceptives, and/or a general desire to avoid contraceptive medications and devices.[5] As for choosing one method over the other, biomarker preference, amount and type of instruction, cycle abnormalities, financial cost, and reproductive stage (i.e. postpartum) may be some of the additional considerations that make one FABM more suitable than another.[4] Considering the prior information, women and couples ought to be counseled on the differences, strengths, and weaknesses of each method in light of their specific goals and circumstances in order to ensure the best outcomes.

Unfortunately, multiple studies have shown that physician behavior and education have been barriers to adequately providing FABMs to patients for family planning. Surveyed physicians have shown inaccurate beliefs, including that FABMs are ineffective, there is no patient demand for FABMs, and that FABMs are too difficult for patients to apply.[9,10] Physicians receive little formal training for FABMs as only 4% of physicians admitted they had received this training.[4] In a U.S. national survey of practicing OBGYNs, gaps in knowledge of FABMs were found, with many respondents giving a negative assessment of FABM use. However, once educated about the different methods, the percentage of OBGYNs recommending against FABM use decreased from 25% to 2%.[11] This would suggest that by addressing the knowledge gap in physician education, bias against counseling about FABMs may improve. This same concept was again demonstrated in medical students following a novel 4-week online elective course about the use of FABMs for both family planning and women's health monitoring.[12] Student surveys after education showed a significant increase in knowledge of FABMs, confidence in explaining and offering FABMs, and reported likelihood of offering such methods. In order to respond to the growing popularity of FABMs for family planning and to ensure effective counseling for patients in such methods, it would seem that any knowledge gap currently existing, for medical trainees or practicing physicians, ought to be identified and addressed. The intent of this current study is to assess the knowledge of OBGYN resident physicians regarding the use of FABMs for family planning. We hypothesized that the residency education obtained regarding FABMs would be insufficient in preparing them to effectively counsel patients regarding FABMs.

METHOD

To ascertain the self-assessed knowledge and preparedness of OBGYN residents to counsel patients about FABMs, a 16-question survey was created via SurveyMonkey. Questions were developed as a subjective assessment of the participants and were not intended to be an objective assessment. The survey was emailed to all OBGYN residency program directors requesting the survey be forwarded to their residents. Residents were compensated for their participation in the study by providing their emails to be entered into a raffle for two $100 Amazon Gift Cards. Sample inclusion criteria was OBGYN resident physicians from all ACGME-accredited OBGYN residencies accredited by the U.S. Accreditation Council for Graduate Medical Education. The study period was from October 2023 to December 2023. Data were collected through SurveyMonkey. Descriptive statistics were assessed through SurveyMonkey.

The study was approved on an expedited review (minimal risk) by the Catholic Health System Institutional Review Board (IRB) on 10/4/2023.

RESULTS

Of the 5,000 OBGYN resident physicians from ACGME-accredited OBGYN residencies, 125 responses were collected. This correlates with a response rate of 3%. The questions and responses collected are displayed in Table 1.

Questionnaire and responses by participants (Table I at end of article.)

43% of respondents indicated they were able to list different types of FABMs (agreed or strongly agreed). However, when asked if they could describe different FABMS other than calendar methods, 75% or more of respondents selected either strongly disagree or disagree. In contrast, 67% of respondents agreed or strongly agreed that they could describe the calendar method to patients. Only 27% of respondents agreed that they could explain the difference between the calendar method and other FABMs.

Participants were asked if they were prepared to explain FABMs to patients who decline contraceptives at their postpartum visit. 59% of respondents disagreed that they could assist their patients in this way.

DISCUSSION

Most respondents were not prepared by their residency curriculum to assist patients who elect to use FABMs for their family planning. The data listed above supports the hypothesis of this study and shows an important gap in postgraduate OBGYN training, and probably also training in medical school. The most common method that could be comfortably described by resident physicians was the calendar method, which is one of the least effective FABMs. There are a variety of more effective FABMs for women to utilize.[5,7] However, correct and complete information is crucial for patients to choose the FABM that best applies to their personal life. OBGYNs are the most accessible fount of knowledge for these patients at critical times in their lives, such as postpartum family planning counseling. Without proper training, OBGYN resident physicians are poorly prepared to appropriately counsel patients. Especially among

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those who decline conventional contraceptive methods of family planning, this knowledge gap can contribute to growing mistrust towards the medical community.

A somewhat similar study to ours was conducted with OBGYN resident physicians that found substantial gaps of knowledge about assisted reproductive technology, with only about 50% answering various key knowledge questions correctly, with no differences by level of training.[13] A majority overestimated the effectiveness of in vitro fertilization in several situations. Unfortunately, these studies highlight a general knowledge gap about fertility from medical school through residency and into medical practice.

The major limitation of this study is the low response rate from the surveys sent out. OBGYN resident physician contact information is confidential. The only way to reach out to other OBGYN resident physicians on a web-based platform is through the OBGYN residency program directors. There may exist a bias on whether OBGYN program directors share the survey with their residents, either due to the topic or due to the design of the questionnaire. Since some residents may have never received the survey, it is impossible to know the true response rate. Of the resident physicians who received the survey, there may also exist a bias regarding whether they choose to participate in the study. It is unlikely that those who did not participate in the study have a greater knowledge of FABMs than those who did participate, but this cannot be known based on the results acquired as part of this study. We feel these data may in fact underestimate the lack of awareness and understanding regarding FABMS nationally.

Limitations also exist within the survey itself as the formatting of the survey may have caused confusion with respondents. The methods queried could have been adjusted to better fit regional FABM practices. Another limitation was that no demographic information was collected from the respondents, which prevents further characterization of these responses. In order to increase response rates, the brevity of the survey was prioritized, with a focus on FABM knowledge and training.

While the questions in this survey were a subjective assessment of the participants' knowledge of FABMs, the results suggest the need forfurther objective assessments of OBGYN resident physicians. The most familiar FABM to participants was the category of calendar methods. However, it is one matter to have a participant express confidence in knowledge and another to have them relay their understanding. For further studies, an objective assessment of OBGYN resident physicians could be conducted. Additionally, future studies could employ more significant incentives for participation as well as other measures to enhance responses. To help strengthen future questionnaires, a pilot group of residents could be sampled in collaboration with content experts in order to obtain more complete information. Another option for a future study could include conducting a survey of OBGYN program directions on how they provide this information to their residents.

CONCLUSION

Despite increased use in recent years and multiple options for FABM use, OBGYN resident education in the application and use of FABMs is lacking. Additionally, residents indicated they are most familiar with the least effective method (calendar method). A significantly low response rate limits the generalizability of this study. Further research into the objective knowledge of OBGYN resident physicians on FABMs would allow for steps to be made in increasing the resident curriculum regarding FABMs.

CONFLICT OF INTEREST DISCLOSURES

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DATA AVAILABILITY

The data underlying this article are available in the article and in its online supplementary material.

AUTHORS' ROLES

Emily Damba-Cunningham: Ideas; formulation or evolution of overarching research goals and aims; Management activities to annotate (produce metadata), scrub data and maintain research data (including software code, where it is necessary for interpreting the data itself) for initial use and later re-use; Preparation, creation and/or presentation of the published work, specifically writing the initial draft and revision.
Ashley Borland: Preparation, creation and/or presentation of the published work, specifically critical review and revision.
William Nolan: Preparation, creation and/or presentation of the published work by those from the original research group, specifically critical review, commentary or revision – including pre- or post-publication stages.

REFERENCES

1. Kavanaugh ML, Jerman J. Contraceptive method use in the United States: trends and characteristics between 2008, 2012 and 2014. Contraception. 2018 Jan;97(1):14-21. https://doi.org/10.1016/j.contraception.2017.10.003

2. Polis CB, Jones RK. Multiple contraceptive method use and prevalence of fertility awareness-based method use in the United States, 2013-2015. Contraception. 2018 Sep;98(3):188-192. doi: 10.1016/j.contraception.2018.04.013.

3. Simmons RG, Jennings V. Fertility awareness-based methods of family planning. Best Pract Res Clin Obstet Gynaecol. 2020 Jul;66:68-82. doi: 10.1016/j.bpobgyn.2019.12.003.

4. Duane M, Stanford JB, Porucznik CA, Vigil P. Fertility Awareness-Based Methods for Women's Health and Family Planning. Front Med (Lausanne). 2022 May 24;9:858977. doi: 10.3389/fmed.2022.858977.

5. Loder C, Villavicencio J. Familiarizing yourself with fertility awareness as a birth control option. Contemporary OB/GYN Journal. 2020 Jun;65(06): 8-11.

6. Practice Committee of the American Society for Reproductive Medicine in collaboration with the Society for Reproductive Endocrinology and Infertility. Electronic address: ASRM@asrm.org; Practice Committee of the American Society for Reproductive Medicine in collaboration with the Society for Reproductive Endocrinology and Infertility. Optimizing natural fertility: a committee opinion. Fertil Steril. 2017 Jan;107(1):52-58. doi: 10.1016/j.fertnstert.2016.09.029.

7. Peragallo Urrutia R, Polis CB, Jensen ET, Greene ME, Kennedy E, Stanford JB. Effectiveness of Fertility Awareness-Based Methods for Pregnancy Prevention: A Systematic Review. Obstet Gynecol. 2018 Sep;132(3):591-604. doi:10.1097/AOG.0000000000002784. Erratum in: Obstet Gynecol. 2019 Feb;133(2):382. doi: 10.1097/AOG.0000000000003142

8. Dehlendorf C, Krajewski C, Borrero S. Contraceptive counseling: best practices to ensure quality communication and enable effective contraceptive use. Clin Obstet Gynecol. 2014 Dec;57(4):659-73. doi: 10.1097/GRF.0000000000000059.

9. Stanford J, Thurman P, Lemaire J. 1999. "Physicians' knowledge and practices regarding natural family planning." *Obstet Gynecol.* 1999 Nov; 94(5): 672-8. doi:10.1016/s0029-7844(99)00388-9

10. Choi J, Chan S, Wiebe E. Natural family planning: physicians' knowledge, attitudes, and practice. J Obstet Gynaecol Can. 2010 Jul;32(7):673-8. doi:10.1016/s1701-2163(16)34571-6.

11. Lawrence RE, Rasinski KA, Yoon JD, Curlin FA. Obstetrician-gynecologists' views on contraception and natural family planning: a national survey. Am J Obstet Gynecol. 2011 Feb;204(2):124.e1-7. doi: 10.1016/j.ajog.2010.08.051.

12. Duane M, Waechtler L, May M, Manda D, Gomez NF, Stujenske TM. Fertility Awareness-Based Methods for Family Planning and Women's Health: Impact of an Online Elective. Fam Med. 2024 Jul;56(7):414-421. https://doi.org/10.22454/FamMed.2024.562177.

13. Roberts LM, Kudesia R, Zhao H, Dolan S, Rose M. A cross-sectional survey of fertility knowledge in obstetrics and gynecology residents. Fertil Res Pract. 2020 Dec 9;6(1):22. doi: 10.1186/s40738-020-00091-2.

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Table 1. Questionnaire and responses by participants (expressed as percentages)

Question	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Do you receive training on fertility awareness based methods (FABMs) of family planning as part of your resident curriculum?	6%	39%	21%	31%	3%
Could you list different types of FABMs?	10%	31%	17%	39%	4%
Would you feel comfortable explaining to a patient how Mucus-only methods worked (ie Creighton and Billings)?	41%	40%	5%	12%	2%
Could you list the use effectiveness of the Mucus-only methods?	40%	44%	5%	10%	1%
Would you feel comfortable explaining to a patient how hormone monitoring methods of fertility awareness works (ie persona contraception)?	31%	44%	5%	20%	1%
Could you list the use effectiveness of hormone monitoring methods of fertility awareness?	30%	44%	12%	15%	0%
Would you feel comfortable explaining to a patient how the Sympto-thermal single-check and double-check methods worked?	35%	45%	9%	10%	1%
Could you list the use effectiveness of the Sympto-thermal single-check and double-check methods?	36%	52%	6%	6%	0%
Would you feel comfortable explaining to a patient how the Sympto-hormonal methods worked (ie the Marquette Method)?	40%	48%	6%	6%	1%
Could you list the use effectiveness of the Sympto-hormonal methods?	37%	52%	4%	6%	1%
Would you feel comfortable explaining to a patient how Calendar-based methods worked (ie the rhythm method)?	6%	11%	16%	59%	8%
Could you list the use effectiveness of the Calendar methods?	11%	27%	19%	40%	4%

Could you explain the difference between the Calendar-based methods and other FABMs?	19%	38%	16%	23%	4%
Are you aware of the different biomarkers of fertility?	6%	17%	20%	50%	7%
If a patient was using a non-FDA approved mobile application for fertility tracking, could you give them suggestions of an FDA-approved method of FABM?	22%	51%	11%	15%	1%
During postpartum counseling, if a patient declined contraceptives, would you be prepared to explain FABMs to the patient as an option?	14%	45%	19%	19%	3%