

## ORIGINAL RESEARCH

# Osteopathic Family Medicine Residents' Knowledge, Views, & Management of Natural Family Planning

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**Abstract:** Very few studies have been conducted to examine osteopathic family medicine residents' views on natural family planning (NFP). This study surveyed osteopathic family medicine residents to better understand their knowledge, views, and education of the topic. The study also examined residents' thoughts on incorporating NFP into their future practice. The survey demonstrates that few residents discuss NFP with patients, yet a majority is interested in learning about the topic and possibly incorporating it into their future practice. Female osteopathic family medicine residents were found to be significantly more interested in learning about and incorporating NFP into their practice. Despite the interest in NFP by residents, very little time has been devoted to NFP education in medical school and residency.

## INTRODUCTION

Osteopathic medicine is a holistic approach to medicine that takes into account a patient's physical, emotional, and spiritual needs.<sup>1</sup> These needs are important for physicians to consider when managing women's health, as many women have religious and philosophical ideas that shape their viewpoints on conception and family planning. Some women are unable to use hormonal contraception due to medical reasons, while others are opposed to using hormones for personal or religious reasons, resulting in many women and their partners considering natural family planning (NFP). However, a majority of physicians are not familiar with a holistic approach to women's health that includes natural family planning as a potential option during contraceptive counseling.<sup>2-5</sup> Studies show that physicians need to increase their awareness and knowledge of NFP in order to better communicate with patients on the topic.<sup>2-4,6</sup> Although not all osteopathic physicians may find NFP as a favorable option for patients, it is important that all physicians are knowledgeable on the subject and able to discuss it with patients that are interested.

To better educate physicians on NFP, the discussion needs to begin at both the medical school and residency training levels. Unfortunately, only a quarter of family medicine residency programs include NFP in their curriculum<sup>6</sup> while medical school typically dedicates less than one hour to the education of NFP.<sup>5</sup> It is no surprise then that younger physicians are less likely to be informed of NFP and are less likely to incorporate it into their medical practice, as compared to older physicians.<sup>2</sup>

The purpose of this study is to evaluate osteopathic family medicine residents' training on NFP, both in medical school and

residency. It will aim to better understand osteopathic family medicine residents' views, perceptions, and management of NFP.

For this study, NFP has been defined as a form of fertility awareness that looks at physical signs or symptoms to identify fertile periods within a woman's menstrual cycle. Pregnancy is avoided by abstaining from intercourse during these fertile days. On the other hand, a woman who wishes to conceive can use the identification of her fertile period to try to achieve pregnancy.<sup>7,8</sup> The methods of NFP included within this study are basal body temperature charting, calendar calculations, cervical mucus monitoring, lactational amenorrhea, or a combination of the above.

## METHODS

A cross-sectional questionnaire-based study was approved by the institutional review board of A.T. Still University in Kirksville, Missouri. The study surveyed osteopathic family medicine residents on their knowledge, views, and management of NFP. The survey contained a total of 22 multiple-choice questions. There were four demographic questions asking about age, gender, year of residency, and marital status. Two questions asked about participants' personal use of NFP. Another 12 questions were dedicated to resident's knowledge and practice management of NFP. The last four questions inquired about NFP education in medical school and residency. Two of the questions and answer choices regarding resident's management of NFP were used with permission by Dr. Joseph Stanford from his study titled "Physicians' Knowledge and Practices Regarding Natural Family Planning" from *Obstetrics and Gynecology* 1999; 94:672-678.

An electronic survey was developed using the online software SurveyMonkey. In the spring of 2014, an email was sent to all osteopathic family medicine residents that are members of the American College of Osteopathic Family Physicians (ACOF)P inviting them to participate in the survey. To keep the survey as

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anonymous as possible, the email was sent with assistance from the ACOFP. The email contained a web link to the online survey. The survey was sent to approximately 1400 individuals and was available online for four weeks. Participation in the study was completely voluntary. All results were anonymous, with no personal identifiers or email addresses linked to survey answers. As an incentive to increase participation in the questionnaire, participants had the opportunity to enter to win a \$50.00 gift certificate to Amazon. Purchase of the gift card was self-funded. One randomly selected individual received the gift card.

Statistical analysis was performed using SAS software version 9.3. Analysis included chi-square tests of independence and Fisher's exact tests. P values less than 0.05 were considered statistically significant. Key comparisons were made between family medicine residents of different genders, age groups, marital status, and year in residency.

## RESULTS

### DEMOGRAPHICS

The survey was sent to approximately 1400 individuals, of whom, 172 responded (approximately 12%). Table 1 shows the demographic characteristics of participants.

### PERSONAL USE OF NFP

When it came to the personal use of NFP, 76% of participants did not currently use NFP, while 13% did currently use some form of NFP (compared to the national average of 1.1%<sup>9</sup>) and 11% replied that it was not applicable. Marital status was found to be significantly associated with personal use of NFP ( $P=0.03$ ). Married family medicine residents were almost three times more likely to use NFP than their non-married counterparts.

The responses were slightly different when participants were asked if they had ever used NFP. Sixty-eight percent had never used NFP, 23% had used NFP in the past (compared to the national average of 21%<sup>9</sup>), and 9% responded not applicable. Again marital status and past use of NFP were statistically significant ( $P=0.008$ ). Family medicine residents who have used NFP in the past were 1.5 times more likely to be married.

### KNOWLEDGE AND MANAGEMENT OF NFP

When asked how familiar osteopathic family medicine residents were with NFP, 56% responded somewhat familiar, 34% stated they were knowledgeable, and 10% stated not at all familiar. Second and third year residents were significantly more likely to be knowledgeable in NFP than their first year counterparts ( $P=0.03$ ). As the year of residency increased, fewer residents indicated not being familiar with NFP.

Residents were also asked how comfortable they would feel discussing the possible use of NFP for contraception with a patient. Half (49%) of the responders stated "somewhat comfortable." Twenty percent stated "very comfortable," 17% responded "very uncomfortable," and 14% were neutral. It was found that married family medicine residents were significantly ( $P=0.0185$ ) more comfortable discussing the possible use of NFP for contraception than their non-married counterparts. Nearly 30% of married residents were "very comfortable" versus only 8% of non-married resi-

**TABLE 1:**

Demographic Characteristics of Osteopathic Family Medicine Residents (n = 172)

DEMOGRAPHIC CHARACTERISTICS		No. (%)
Gender	Male	38
	Female	62
Age	20 - 25	1
	26 - 30	56
	31 - 35	30
	36 - 40	6.5
	41 - 45	3
	46 +	3.5
Relationship Status	Married	57
	Single	34
	Co-habiting	7
	Divorced	2
	Widowed	0
Year in Residency	First	25
	Second	34
	Third	36
	Fourth	5

dents. It was also found that the more familiar a resident is with NFP, the more comfortable he/she is discussing the subject with patients ( $P<0.001$ ).

When asked if a patient had ever asked them about NFP, a majority (67%) of family medicine residents responded "no." However, there was a statistical significance ( $P=0.01$ ) between the year in residency and answer to this question. The further along a resident was in training, the more likely a resident was to have had a patient inquire about NFP. It was also found that residents between the ages of 31-35 were 1.6 times more likely to have had a patient ask them about NFP than those residents aged 26-30 ( $P=0.04$ ).

When family medicine residents were asked how effective they believe NFP is for contraception compared to other forms of birth control, 45% thought significantly less effective, 39% stated somewhat less effective, 15% stated similarly effective, and 1% responded more effective. Interestingly, when asked how effective they thought NFP was for achieving pregnancy, 56% of family medicine residents responded somewhat effective, 43% stated very effectively, and 1% stated not at all effective.

Two of the survey questions were used with permission from Stanford.<sup>3</sup> The first question asked residents if they ever mention NFP when providing contraceptive management, with a majority (47%) of residents responding “never.” Another 23% mention NFP, but with reservations. Twenty-seven percent of residents stated they mention NFP as a viable option to selected patients while 3% mention it as a viable option to all of their patients. When asked about providing advice on achieving pregnancy, interestingly, about one-third (36%) of residents mention NFP as a viable option for selected patients and another 27% mention it as a viable option for all patients. Only 25% never mention NFP as an option, and another 12% mention it with reservations. Female family medicine residents were found to be 2.8 times more likely ( $P=0.002$ ) to mention NFP as an option for achieving pregnancy than male residents.

When it came to plans for incorporating NFP into their future practice, 44% osteopathic family medicine residents were unsure at this time. Another 40% stated they planned to incorporate NFP while 16% stated they had no plans of using it. Female residents were 1.5 times more likely to incorporate NFP into their future practices than male residents ( $P=0.03$ ).

A majority (67%) of residents report that their residency clinic does not have any literature or pamphlets on NFP available to hand out to patients while only 7% stated literature was available. Another 26% of residents were unsure. Again, a majority (78%) of family medicine residents are not familiar with any organizations or instructors of NFP. While 20% are somewhat familiar, and 2% are very familiar. When asked if they would refer a patient interested in NFP to an organization or instructor, 30% of residents stated “yes.” Another 25% stated “maybe” and 4% stated “no.” Forty-two percent of family medicine residents responded they would not know where to refer a patient who was interested in NFP.

## MEDICAL SCHOOL & RESIDENCY EDUCATION ON NFP

A majority (56%) of participants stated that less than one hour of their osteopathic medical education was spent discussing NFP. Another 27% stated no time was spent on NFP education while 16% stated between 1-5 hours were spent, and 1% had over 5 hours of their medical education devoted to NFP.

When asked how much time was devoted to their residency training to NFP, 45% of residents responded none. Of those residents in this study that did report some education on NFP, 37% stated they received less than one hour, 16% stated between 1-5 hours, and 2% responded greater than 5 hours.

A little over half (58%) of participants stated that some of their family medicine residency program faculty were familiar with NFP. Another 14% of residents stated none of their faculty was familiar with NFP while 12% responded their entire faculty was familiar. Approximately 15% of residents did not know how familiar their teaching faculty was with NFP.

Interestingly, 45% of participants would like to see their family medicine residency program include NFP in its women’s health curriculum for all residents. Thirty-three percent stated that they would “maybe” want to have NFP included in their residency curriculum, and 11% would like to see it included only for those residents interested in the subject. Another 10% did not want NFP in-

cluded at all in their residency curriculum. There was a significant relationship ( $P= 0.04$ ) between female gender and those desiring NFP curriculum in their residency program. Female participants were 1.7 times more likely to desire that NFP curriculum is included for everyone in their family medicine residency program.

## DISCUSSION

Very few studies have examined family medicine residents’ knowledge and management of NFP. To the best of our knowledge, this is the first research that investigated osteopathic family medicine residents’ opinions, knowledge, and education of NFP. Similar to studies performed by Choi and Stanford, this study showed that a majority of resident physicians do not believe that NFP is an effective form of contraception compared to other methods of birth control.<sup>2,3</sup>

The percentage of osteopathic family medicine residents in this study who discussed NFP as a contraceptive option with patients was similar to that found in a Canadian study by Choi,<sup>2</sup> but was fewer than that found by Stanford.<sup>3</sup> And when it came to discussing NFP as a way to achieve pregnancy, similar results were seen in this study compared to that by Choi.<sup>2</sup> The similar results between this study and that of Choi may be attributed to the fact that both included resident physicians, whereas the study by Stanford did not. Interestingly, in this study female residents were 2.8 times more likely to mention NFP as an option for achieving pregnancy than male counterparts.

This study has demonstrated that osteopathic family medicine residents have little education or training in NFP. Eighty-three percent of residents stated they had either no training or less than one hour of training in medical school, confirming what had previously been reported by Fehrig.<sup>5</sup> Again, another 45% stated they had no training on NFP in residency, which is even higher than the 25% reported by Duane.<sup>6</sup> It is interesting that little time is devoted to NFP education, yet almost half of residents in this study would like to see NFP incorporated into their curriculum, with female residents showing an even greater interest.

This study further confirms the importance of NFP education by demonstrating that the more familiar a resident is with NFP, the more comfortable he or she feels discussing the topic with patients. If more education time could be devoted to NFP, it is likely that family medicine residents would be more comfortable with the topic, and thus, more likely to bring it up in conversation with patients. This study also shows that a large number of osteopathic family medicine residents plan to incorporate or are considering incorporating NFP into their future practice. With a majority of residents potentially counseling women on NFP in the future, it is crucial that residency programs incorporate it into their curriculum. To help increase education on NFP, residents need to become more aware of organizations in their area that can teach patients, as well as provide literature to those that are interested. In this study, 42% of residents did not know where to refer a patient who was interested in NFP, which is even higher than the 25% reported by Stanford.<sup>3</sup> All osteopathic family medicine residents practicing women’s health should be able to address the basics of NFP and know where to refer their patients who desire more information on the subject. Future education of residents should involve the basics of fertility awareness methods, evidence of the efficacy of

these methods, and the physiology behind them. Education could also include further instruction by certified practitioners and teachers of the different NFP methods.

A weakness of this study was that it only involved a small percentage (12%) of osteopathic family medicine residents, and may not reflect the true majority of residents' views. Those residents that did choose to respond to the survey may have done so because of a bias or personal interest in the subject. After all, this study had a larger number of people who admitted to using or having used NFP compared to the national average. In this study, 13% of responders were currently using NFP and another 26% had used it at some point in the past. Again, these values are higher than the national average as reported in the 2006-2008 National Survey of Family Growth, in which 1.1% of U.S. women were currently using fertility based methods and another 21% had used it at some point.<sup>9</sup> Another limitation of the study may involve the majority of responders being female (62%). Female family medicine residents may have been more interested in the subject of the questionnaire, and thus, more likely to respond to it. Again, leaving the results of this questionnaire possibly biased towards female residents' views.

Future investigations could involve obtaining greater participation, by including both osteopathic family medicine residents and osteopathic obstetrics and gynecology (Ob-Gyn) residents in the study. It would also be interesting to survey participants on their religious preferences, as done in the study by Lawrence,<sup>4</sup> to see if residents' religious background impacts their knowledge and views of NFP.

## CONCLUSION

Only a small proportion of family medicine residents in this study discuss NFP with patients, yet many resident physicians, especially female residents, are interested in the topic. This study demonstrates that little osteopathic training is dedicated to NFP education. Osteopathic medical schools and family medicine residency programs should consider including NFP in their curriculum to not only meet the needs of their resident physicians but also to continue to fulfill the osteopathic approach to holistic medicine.

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## DISCLOSURE STATEMENT:

Robert Schneider, DO, FAAFP is a Natural Family Planning Medical Consultant with Creighton Model FertilityCare System. His wife, Susan Schneider, BA is a Practitioner with Creighton Model FertilityCare System.

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