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Multisite Effectiveness Study of the Marquette Method of Natural Family Planning Program

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Abstract

Women of reproductive age need reliable and effective family planning methods to manage their fertility. Natural family planning (NFP) methods or fertility awareness-based methods (FABMs) have been increasingly used by women due to their health benefits. Nevertheless, effectiveness of these natural methods remains inconsistent, and these methods are difficult for healthcare providers to implement in their clinical practice. The purpose of this study is to evaluate the effectiveness of the Marquette Model NFP system to avoid pregnancy for women at multiple teaching sites using twelve months of retrospectively collected teaching data. Survival analysis (Kaplan–Meier) was used to determine typical unintended pregnancy rates for a total of 1,221 women. There were forty-two unintended pregnancies which provided a typical use unintended pregnancy rate of 6.7 per 100

women over twelve months of use. Eleven of the forty-two unintended pregnancies were associated with correct use of the method. The total unintended pregnancy rate over twelve months of use was 2.8 per 100 for women with regular cycles, 8.0 per 100 women for the postpartum and breastfeeding women, and 4.3 per 100 for women with irregular menstrual cycles. The Marquette Model system of NFP was effective when provided by health professionals who completed the Marquette Model NFP teacher training program.

Summary:

This study involved determining whether healthcare professionals at ten sites across the United States and Canada trained to provide the Marquette Method NFP services can replicate the effectiveness demonstrated in previous studies of the method. We found a high level of effectiveness (i.e., very low pregnancy rates) in using the Marquette Method among women from various regions across North America with diverse reproductive backgrounds and in particular when using hormonal fertility marker. Healthcare providers who have been trained to teach NFP can successfully incorporate NFP services in their practice and assist their clients in choosing appropriate family planning methods.

Natural family planning (NFP) and fertility awareness-based methods (FABMs) use natural biologic markers to estimate a woman's fertile phase within her menstrual cycle. With this information, women can use these methods to either achieve or avoid pregnancy (American College of Midwives 2018, 637; Urrutia et al. 2018, 592). Interest and usage of these methods are growing as more women desire family planning options that are free of hormones and side effects. Data from the National Survey of Family Growth have shown that the use of FABMs has grown 1.1 percent to 3.2 percent from 2008 to 2015 in the United States (Polis and Jones 2018, 191). Despite increasing interest among women in recent years, NFP/FABMs often have not been considered effective methods in avoiding pregnancy by many healthcare providers due to worries and concerns of user inappropriateness, lack of accurate knowledge of female fertility and of NFP methods, and clinical time constraints to teach the method (Kelly et al. 2012, 38–39; Hampton et al. 2016, 1545–46).

NFP/FABM has evolved from the initial calendar rhythm method in the 1920s. Modern NFP/FABMs (e.g., the Billings Ovulation method, symptothermal methods, and the Creighton Model system) have adapted and incorporated technology with increased accuracy of fertility monitoring and user convenience (Fehring 2005, 31–34; Symul et al. 2019, 7–8). The effectiveness of NFP/FABM varies greatly among the different methods and typical use failure rates can vary between 2 percent and 23 percent depending on the method (Centers for Disease Control and Prevention website as of April 22, 2020). It is critical to assess the individual NFP method in order to understand its effectiveness.

The Marquette Method was developed and launched by a group of professional nurses, physicians, and faculty at the Marquette Institute of NFP in 1998. Since then, multiple studies have been conducted to evaluate the effectiveness of the Marquette Method in avoiding pregnancy for women at different reproductive stages, such as with regular menstrual cycles (Fehring, Schneider, and Raviele 2011, 286), during the postpartum and breastfeeding transition (Bouchard, Fehring, and Schneider 2013, 41; Fehring, Schneider, and Bouchard 2017, e133–34), and the perimenopausal transition (Fehring and Mu 2014, 354–55).

The Marquette Method of NFP is a modern, evidence-based system of NFP that incorporates the newest urine hormonal monitoring technology as a means for accurately estimating the fertile window of the menstrual cycle. The primary hormonal monitoring involves the use of an electronic hormonal fertility monitor that measures urine metabolites of estrogen and luteinizing hormone (LH). When the monitor detects a rise from baseline in estrogen levels, it provides a high reading and when it detects the surge in LH it provides a peak reading. The protocol for use with the Marquette Method is that the estimated fertile window begins on day 6 of the first six cycles and ends three full days past the last peak reading (of either mucus or monitor). After six cycles, the beginning of fertility is based on the earliest high reading of the last six cycles. It also includes the provision of traditional indicators of fertility, that is, mucus monitoring and temperature taking, when needed or desired as determined by the woman user and her NFP teacher. The Marquette Method is only taught by health professionals. Multiple research studies have demonstrated that the Marquette Method is an effective means of avoiding pregnancy for women in a variety of reproductive situations.

In 1999, the Marquette University Institute for NFP started an educational program to train healthcare professionals to provide the Marquette Method within their own clinical practice. The teacher training program includes a core NFP theory course, a practicum course for teaching the Marquette Method, and an NFP medical application course. All three courses are provided through the College of Nursing, and our targeted trainees are health professionals, that is, professional nurses, physicians, certified nurse midwives, nurse practitioners, and physician assistants. In 2000, we began providing the Marquette Method NFP teacher training program on an online platform and now offer the courses only online and in a continuing education format rather than fixed semester credit courses. We currently have over forty healthcare professionals providing the Marquette Method teaching in person, online, or both in the United States, Canada, the United Kingdom, Africa, and the Philippines.

Since Marquette Method NFP healthcare professionals provide NFP in their practice, it is important to know the effectiveness of the Marquette Method among the teachers who are external to the University-based program. This knowledge is especially important given the possible variation in teaching format and follow-up structure in real practice. Conducting a multiple site effectiveness study could not only validate the Marquette Method but also our NFP teacher training program. Therefore, the purpose for this study was to evaluate the effectiveness of the Marquette Method system of NFP for avoiding pregnancy using data obtained from Marquette Model NFP health professionals at multiple sites.

Method

Design

This is a retrospective longitudinal (twelve month) cohort study. The study was approved by the University as exempt since there is no direct patient contact nor any unique subject identifiers involved in the data collection. Anonymized data for this study were extracted from the teaching records of ten Marquette Method NFP teachers. The ten teachers were from a variety of locations in the United States (i.e., Alabama, Georgia, Kansas, Michigan, Pennsylvania, North Dakota, Wisconsin) and Canada (Alberta) and are professional nurses, advanced practice nurses, a family practice physician, and a physician assistant. The inclusion criteria were Marquette Method NFP teachers who have completed

the Marquette NFP teacher training program, who have provided the system of NFP for one year, and who have taught at least ten women/couples. Marquette Method NFP teachers who were using an older system of NFP or those who were involved with previous published studies were not accepted for this study. The median number of women users that the ten NFP teachers taught the Marquette Method was 87, and the range was 22–540.

Sample

The woman NFP users who completed the Marquette Method training sessions provided by the ten Marquette Model NFP teachers and had a minimum of one menstrual cycle of usage were included in the sample. Women who never finished the Marquette Method training and had no information of cycle usage were excluded from the sample. A total of 1221 women were included in the final sample for analysis. All of these women were using the Marquette Method to avoid pregnancy.

Study Variables

All Marquette NFP Method teachers are required to maintain a standardized minimal data set of information for quality control purposes. The minimal data set collected women's age, their reproductive category, the number of teaching sessions, the months of usage, and the biomarkers with which they used to monitor their fertility. Based on the protocol of the Marquette Method, the women user can choose their own combination of fertility indicators which best fit their lifestyle and reproductive needs, that is, basal body temperature, cervical mucus monitoring (CMM), electronic hormonal fertility monitoring (EHFM), and LH tests. The fertility indicators are combined with the Marquette Model algorithm when the women are ovulating (Fehring 2005, 35) or with a special postpartum protocol while breastfeeding (Fehring, Schneider, and Barron 2005, 805–6). Women also reported their intention to avoid or achieve pregnancy while using the Marquette Method. Only avoiding pregnancy months of use were included in the study.

The minimal data set also tracks intended and unintended pregnancies for each woman. All occurred pregnancies were reviewed and classified by the Marquette Model NFP teacher with the woman/couple by use of a standardized pregnancy evaluation form and the menstrual cycle chart involving the pregnancy. The month the pregnancy occurred and associated reason for each pregnancy were recorded. Pregnancies were classified as a correct use unintended pregnancy when there was correct usage of the method by avoiding intercourse in the estimated fertile window but still achieved a pregnancy. Incorrect use was defined as having intercourse in the fertile window or incorrectly estimating the fertile window. Typical or total unintended pregnancy rates included all unintended pregnancy cases and total months of use.

Statistical Analysis

Statistical analyses were conducted using the SPSS version 22. We provided a summary of the characteristics for the whole sample and for subgroups based on reproductive categories and the fertility monitoring types, using descriptive statistics (means and standard deviations). Survival analysis (Kaplan–Meier) was used to determine typical unintended pregnancy rates for the whole sample, the three reproductive categories (regular cycle, postpartum and breastfeeding, and irregular cycle), and the four types of fertility monitoring groups (CMM only, EHFM only, CMM and EHFM, and LH plus). Survival referred to the months of use when there were no unintended pregnancies. Only typical use

was calculated since information as to how many months or menstrual cycles of use were due to correct use was not available.

Results

The mean age of the women participants was 29.63 years ($SD = 5.13$, range 19–57). The 1221 women generated 9,060 documented months of use with a mean of 7.42 months per woman. The sample included 402 (32.9 percent) women who had regular cycles, 741 (60.7 percent) who were postpartum and breastfeeding, and 68 (5.6 percent) women who had irregular cycles, that is, menstrual cycle lengths outside of a twenty-one to thirty-five days (Table 1).

The women participants used various combinations of fertility biomarkers to monitor their fertility: 114 (9.3 percent) women used CMM only, 332 (27.2 percent) women used the EHFM only, 283 (23.2 percent) women use both CMM and the EHFM, and 471 (38.6 percent) applied an LH test along with either CMM or EHFM. Seven hundred fifty-four women (61.8 percent) used more than one fertility biomarker to monitor their fertility (Table 2).

There were a total of forty-two unintended pregnancies that provided an overall typical use unintended pregnancy rate of 6.7 per 100 women over twelve months of use. Eleven of the forty-two unintended pregnancy cases were due to correct use of the Method. As shown in Table 3, the total unintended pregnancy rate over twelve months of use was 2.8 per 100 women for the regular cycle group, 8.0 per 100 women for the postpartum and breastfeeding group, and 4.3 per 100 women for the irregular cycle group.

Total unintended pregnancy rates for women who used different types of fertility monitoring with the Marquette Method system of NFP are shown in Table 4. The total unintended pregnancy rate over twelve months of use was 15.6 per 100 women who used only CMM, 8.1 per 100 women who used only EHFM, 14.1 per 100 women who used both CMM and EHFM, and 4.1 per 100 women who used LH along with either CMM or EHFM.

Table 1. Characteristics of Marquette Natural Family Planning User by Reproductive Category.

User Characteristics	Regular Cycles (<i>n</i> = 402)	Postpartum/Breastfeeding (<i>n</i> = 741)	Irregular Cycles (<i>n</i> = 68)
Age of the women	28.21 (<i>SD</i> = 5.59)	30.17 (<i>SD</i> = 4.32)	32.36 (<i>SD</i> = 7.74)
Months of use	5.83 (<i>SD</i> = 4.29)	8.35 (<i>SD</i> = 4.14)	6.76 (<i>SD</i> = 4.36)
Fertility monitoring			
CMM only	95 (23.6 percent)	11 (1.5 percent)	6 (8.8 percent)
EHFM only	65 (16.2 percent)	242 (32.7 percent)	23 (33.8 percent)
CMM + EHFM	107 (26.6 percent)	154 (20.8 percent)	20 (29.4 percent)
LH plus	126 (31.3 percent)	327 (44.1 percent)	15 (22.1 percent)
Missing	9 (2.2 percent)	7 (0.9 percent)	4 (5.9 percent)
Total unintended pregnancies	6 (1.5 percent)	34 (4.6 percent)	1 (1.5 percent)
Unintended pregnancies due to method failure	0 (0 percent)	10 (1.3 percent)	0 (0 percent)
Unintended pregnancies due to user behavior	4 (1.0 percent)	18 (2.4 percent)	1 (1.5 percent)
Unintended pregnancies with reason unknown	2 (0.5 percent)	6 (0.8 percent)	0 (0 percent)

Note: *N* = 1,221; *n* = 1,201 due to missing data. CMM = cervical mucus monitoring; EHFM = electronic hormonal fertility monitor; LH = luteinizing hormone.

Table 2. Characteristics of Marquette Natural Family Planning User Based on the Types of Fertility Biomarker Used.

User Characteristics	CMM Only (<i>n</i> = 114)	EHFM Only (<i>n</i> = 332)	CMM + EHFM (<i>n</i> = 283)	LH Plus ^a (<i>n</i> = 471)
Age of the women	26.82 (<i>SD</i> = 5.04)	30.18 (<i>SD</i> = 5.26)	29.78 (<i>SD</i> = 5.09)	29.74 (<i>SD</i> = 4.80)
Months of use	3.88 (<i>SD</i> = 2.93)	7.02 (<i>SD</i> = 4.12)	5.57 (<i>SD</i> = 4.35)	9.64 (<i>SD</i> = 3.60)
Reproductive category				
Regular cycle	95 (83.3 percent)	65 (19.6 percent)	107 (37.8 percent)	126 (26.8 percent)
Postpartum/breastfeed	11 (9.6 percent)	242 (72.9 percent)	154 (54.4 percent)	327 (69.4 percent)
Irregular cycle	6 (5.3 percent)	23 (6.9 percent)	20 (7.1 percent)	15 (3.2 percent)
Missing	2 (1.8 percent)	2 (0.6 percent)	2 (0.7 percent)	3 (0.6 percent)
Total unintended pregnancies	2 (1.8 percent)	11 (3.3 percent)	15 (5.3 percent)	14 (3.0 percent)
Unintended pregnancy due to method failure	0 (0 percent)	3 (0.9 percent)	4 (1.4 percent)	4 (0.8 percent)
Unintended pregnancy due to user behavior	1 (0.9 percent)	6 (1.8 percent)	8 (2.8 percent)	8 (1.7 percent)
Unintended pregnancy with reason unknown	1 (0.9 percent)	2 (0.6 percent)	3 (1.1 percent)	2 (0.4 percent)

Note: *N* = 1,221; *n* = 1,212 due to missing data. CMM = cervical mucus monitoring; EHFM = electronic hormonal fertility monitor; LH = luteinizing hormone.

^a Includes use of LH as a second check for peak fertility with either CMM or EHFM.

Table 3. Total Unintended Pregnancy Rates per 100 Women Over Twelve Months of Use according to the Kaplan–Meier Approach for the Different Reproductive Groups.

User Characteristics	Regular Cycles (n = 402)				Postpartum/Breastfeeding (n = 741)					Irregular Cycles (n = 68)			
	Women Exposed	Pregnancies	Rate	SE	Women Exposed	Pregnancies	Rate	SE	Women Exposed	Pregnancies	Rate	SE	
Three months	286	3	0.9	.01	609	5	0.8	.00	51	0	0	0	
Six months	172	2	2.0	.01	578	3	1.3	.00	35	0	0	0	
Nine months	125	1	2.8	.01	403	3	2.0	.01	27	0	0	0	
Twelve months	113	0	2.8	0	373	23	7.9	.01	22	1	4.3	.04	
Total		6				34				1			

Note: N = 1,221; n = 1,211 due to missing data. SE = standard error.

Table 4. Total Unintended Pregnancy Rates Per 100 Women Over Twelve Months of Use according to the Kaplan–Meier Approach for Fertility Monitoring Types.

User Characteristics	CMM Only (n = 114)				EHFM Only (n = 332)				CMM + EHFM (n = 283)				LH Plus ^a (n = 471)			
	Women Exposed	Pregnancies	Rate	SE	Women Exposed	Pregnancies	Rate	SE	Women Exposed	Pregnancies	Rate	SE	Women Exposed	Pregnancies	Rate	SE
Three months	92	0	0	0	253	2	0.7	.01	168	3	1.2	.01	423	3	0.7	.0
Six months	16	0	0	0	231	1	1.1	.01	123	4	4.4	.02	406	0	0	.0
Nine months	12	1	7.1	.07	126	1	1.8	.01	85	1	5.5	.02	325	2	1.3	.01
Twelve months	10	1	15.6	.10	109	7	8.1	.03	76	7	14.1	.04	306	9	4.1	.01
Total		2				11				15				14		

Note: N = 1,221; n = 1,200 due to missing data. CMM = cervical mucus monitoring; EHFM = electronic hormonal fertility monitor; LH = luteinizing hormone; SE = standard error.

^a Includes use of LH as a second check for Peak fertility with either CMM or EHFM.

Discussion

Findings of this study are consistent with or better than previous effectiveness studies of the Marquette Method that were conducted through the Marquette University Institute for NFP (Fehring, Schneider, and Raviele 2011, 286–87; Fehring, Schneider, and Barron 2008). The overall pregnancy rate of 6.7 per 100 women over twelve months of use is hard to compare with the overall effectiveness pregnancy rates of other NFP methods in the past twenty years. Most NFP effectiveness studies do not report total effectiveness rates that include all reproductive categories; most studies only report findings for women with regular cycles or women who are postpartum and breastfeeding (Fehring 2017, 181–86; Fehring 2019, 3–4).

One study that combined these groups found a total pregnancy rate of 17.12 over twelve months of use with a cervical mucus only method (Howard and Stanford 1999, 395). Our recent extended use study of the Marquette Method that combined all reproductive categories (i.e., regular and irregular menstrual cycles and postpartum breastfeeding) found a total pregnancy rate of 12.6 per 100 over twelve months of use (Fehring and Schneider 2017, 47). The rate of 2.8 pregnancies per 100 women over twelve months of use with the current study for regular cycling women was comparable to the unpublished data from the same extended use study in which there was a rate of 5.3 pregnancies per 100 women over twelve months of use of Marquette Method for regular cycling women (Fehring and Schneider 2017, 47).

The total pregnancy rate of 8 per 100 women over twelve months of use among the postpartum breastfeeding women in the current study was the same rate found in the Bouchard, Fehring, and Schneider's (2013, 40) study of women using the Marquette Method postpartum protocol. The pregnancy rate of 8 is considerably less than the pregnancy rate of 24 per 100 among the postpartum breastfeeding women that Howard and Stanford reported in their study (Howard and Stanford 1999, 395). The 4.3 per 100 women pregnancy rate found in the current study among women with irregular menstrual cycles was similar to the pregnancy rate that was found with an earlier study of the Marquette Method among perimenopause women (Fehring and Mu 2014, 354).

Of interest is how low the pregnancy rates were among those women using the EHF_M alone or with a urine LH test as a second check for peak fertility in the current study. Those using only cervical mucus in our study had a total pregnancy rate of 15.6 per 100 women over twelve months, which was comparable to the rate of 17.12 in the Howard and Stanford's study (1999, 395). By contrast, the women in our study who used the EHF_M alone or with an LH test as a second check had pregnancy rates of 8.1 and 4.1, respectively, per 100 women over twelve months of use. In an earlier randomized comparison study of the EHF_M versus CMM that the use of the electronic hormonal monitor provided significantly lower unintended pregnancy rates. The lower pregnancy rates are most likely due to the more accurate, and objective biological indicators provided by the hormonal monitor compared with cervical mucus observations (Fehring, Schneider, Raviele, et al. 2013, 27; Fehring and Mu 2014, 356). This finding is consistent with past effectiveness studies of the Marquette Method. The simplified instructions of the Marquette Method also made it easier for the women to use and for the healthcare professionals to teach.

The current study demonstrates that the Marquette Method compares well with other NFP methods. The Urrutia et al. (2018, 599) systematic review found that the “moderate quality” Marquette Method Mucus-only studies had a pregnancy rate between 4 and 18.5 per 100 women over twelve months. In comparison, the “moderate quality” Billings mucus method studies had an unintended pregnancy rate between 10.5 and 33.6 per 100 women. The “moderate quality” symptothermal studies had an unintended pregnancy rate from 1.8 to 33.0, and the “moderate quality” Marquette Method monitor-only or Marquette Method Monitor-Plus-Mucus studies had an unintended pregnancy rate from 2.0 to 7.0. Our current study at 6.7 unintended pregnancies certainly fit within the Marquette Model methods that use the EHF_M. The unintended pregnancy rates of the current study also compare well with the unintended pregnancy rates of the hormonal contraceptive pill (i.e., about 8 per 100 women over twelve months of use and better than the reported pregnancy rate of the male condom use at 12 per 100 women over twelve months of use).

Our findings might also reflect the teaching effectiveness among healthcare professionals who had completed the Marquette Method NFP teacher training program. For quality monitoring purposes, Marquette Method NFP teachers are required to keep track of their teaching sessions and statistics with each client. Our data indicate that these ten teachers used a variety of teaching styles and a different number of teaching sessions in delivering their NFP programs with their clients based on both the provider’s and the individual client’s need and availability. Despite the difference in their teaching methods and number of teaching sessions, all the Marquette Method NFP teachers are trained and required to use a standard NFP terminology and content in delivering NFP; follow standardized teaching schedules, protocols for special reproductive circumstances; and use standardized registration, follow-up forms, pregnancy evaluations, and discontinuations. Furthermore, all the Marquette Model teachers are healthcare professionals (i.e., professional nurses, physicians, advanced practice nurses, and physician assistants). The combination of delivery flexibility and consistent content/material may be critical for healthcare professionals who are interested in providing NFP/FABM in their practice (Kelly et al. 2012, 38–40; Hampton et al. 2016, 1547–48).

Limitations

A major limitation of the current study is that it was retrospective design, and as such, we were not able to calculate correct use pregnancy rates by correct months of use. However, the data for the study were collected prospectively by the ten health professionals along with their teaching. If the Marquette Method minimum data set used by all Marquette NFP teachers included correct months of use of the method, we would be able to calculate the correct use pregnancy rate. Another limitation is that the minimum data set did not include important demographic information about the woman user, such as religion, economic status, race and ethnicity, and marital status.

We recommend that the minimum data set include a few more demographics variables in the future (e.g., race and ethnic background, religion, economic status, marital status, education level, and level of motivation for avoiding or achieving pregnancy). At this time, most NFP effectiveness studies are dominated by white, middle to upper class, well-educated Catholic women and couples. It would be worthwhile to determine whether income level, race, religion, education, and so on, have an influence on effectiveness of NFP methods. A minimum data set like this could be used by other providers of NFP methods such as the Title X family planning clinics that are mandated to provide NFP services and have

a more diverse client base. We are currently developing an online charting system for NFP that is synced to our fertility monitoring mobile applications. Such a data tracking system that connects multiple providers throughout the world would help to generate large data sets with diverse groups of users and could be a powerful tool in evaluating effectiveness of NFP methods among a large diverse group of women users. This new synced app charting system also includes asking the woman user to rate her motivation for avoiding pregnancy with asking how hard and how much from 1 to 10, with 10 being the highest motivation, before she begins to chart a menstrual cycle. We used this system in our randomized comparison study and found that once motivation levels drop below eight, unintended pregnancies increase significantly (Fehring, Schneider, Barron, et al. 2013, 354–56). Motivation scores for avoiding or achieving pregnancy could also be included in a minimal data set.

Due to the small sample size in each of the providers' sample sets, we were unable to do comparisons between the teachers to determine whether there were different effectiveness rates among the various teachers, and what teacher-based factors might impact effectiveness rates. Knowing these details could help tailor or improve specific teachers' delivery of the method instructions. Furthermore, the fact there was a wide range in the number of women taught by the ten teachers could have skewed the results. The results could be skewed as increasing or decreasing the actual unintended pregnancy rates. Because the results are comparable to our recent Marquette Method effectiveness studies in which couples were essentially self-taught through our online website, women or couples having their own NFP teachers may enhance effectiveness.

Other ways of testing the effectiveness of teaching, besides evaluating pregnancy rates, might be to administer fertility knowledge quizzes for the couples and evaluating teaching effectiveness with standardized rating tools. Both of these methods are utilized in the Marquette NFP teacher training program (Fehring, Schneider, and Raviele 2011).

Clinical Implications

More women are interested in using nonhormonal methods to manage their fertility as evidenced by numbers of fertility/menstrual cycle charting applications that are being developed, marketed, and used (Moglia et al. 2016, 1156; Starling et al. 2018, 4). This increased interest is most likely due to the side effects of synthetic steroids used in hormonal contraception. For example, the combined hormonal pill has been rated as a Group one carcinogen for humans by the World Health Organization (2005, 1). However, fertility monitoring apps may not be effective or sufficient to use alone for family planning purposes without appropriate FABM training and knowledge of fertility self-awareness (Duane et al. 2016, 511; Freis et al. 2018, 6). It is important for women to select evidence-based FABM methods or apps in order to avoid unintended pregnancies effectively (Urrutia et al. 2018, 601; Duane et al. 2016, 511; Urrutia and Polis 2019, 2–3).

Many women view fertility as an important topic and often prefer to consult with their healthcare providers (Mu et al. 2019, 159). Women also consider that a healthcare provider's recommendation is very important in selecting fertility apps (Starling et al. 2018, 6). This provides both opportunities and challenges for healthcare providers to incorporate NFP/FABM discussion or education in their practice and requires healthcare providers themselves to have adequate training in knowledge and application of fertility monitoring (Hampton and Mazza 2015, 844). Our study demonstrates that healthcare providers who completed the Marquette Method teacher training program can successfully teach

women and couples NFP and achieve consistent results comparable to those of previous effectiveness studies. The Marquette Method of NFP as provided by health professionals is a reliable and safe option to help women and couples avoid pregnancy.

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