International Journal of Gynecology and Obstetrics 132 (2016) 321–324

Contents lists available at ScienceDirect

International Journal of Gynecology and Obstetrics

journal homepage: www.elsevier.com/locate/ijgo

CLINICAL ARTICLE

Muslim patients' expectations and attitudes about Ramadan fasting during pregnancy

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ARTICLE INFO

Article history:
Received 25 February 2015
Received in revised form 8 July 2015
Accepted 12 November 2015

Keywords:
Fasting
Islam
Muslim
Pregnancy
Prenatal care
Ramadan

ABSTRACT

Objective: To investigate Muslim women's attitudes concerning Ramadan fasting during pregnancy and determine how healthcare providers can better serve this population. *Methods:* A cross-sectional study targeted Muslim patients with active obstetric records within the University of Michigan Health System who received care at clinics in metro Detroit (MI, USA) during Ramadan in 2013. Patients aged 18–50 years were approached between July 7 and August 15, and asked to complete a written survey on perceptions of fasting, influences on decision making, and healthcare expectations. *Results:* Among the 37 women who completed the survey, 26 (70%) did not fast in their current or most recent pregnancy during Ramadan. Overall, 23 (62%) women believed that fasting was harmful to themselves, their fetus, or both. Seven (19%) women reported consulting others about fasting during pregnancy, with the most influential individuals being Muslim scholars, followed by family/relatives and healthcare providers. The most important characteristics desired in a physician included being respectful of Islamic beliefs and possessing knowledge about Ramadan. *Conclusion:* Most women chose not to fast during pregnancy. Although few consulted healthcare providers, pregnant Muslim women valued their opinions. Healthcare providers need to educate themselves about which topics to discuss with Muslim patients to provide care on an individual basis.

1. Introduction

During the month of Ramadan, adult Muslims abstain from eating, drinking, smoking, and sexual activity from sunrise to sunset [1–4]. Fasting during Ramadan forms one of the five pillars of Islam, along with announcement of faith, praying five times a day, Zakat (giving to the poor), and Hajj (pilgrimage to Mecca). In 2010, there were approximately 1.6 billion Muslims worldwide and this number is growing [5]. Most Muslims observe Ramadan every year [6].

Exemption from fasting is permitted for women who are pregnant or breastfeeding, but the missed fasts must be completed before the next Ramadan [7]. Nevertheless, several studies have shown that most Muslim women choose to fast during pregnancy because of a sense of religious duty, familial support, positive views on fasting, and difficulty in completing the missed fasts at another time [2,4,8]. A previous study [9] found that Muslim women believed the only reason not to fast would be perceived harm to mother or fetus, but that fasting during pregnancy is safe for healthy women. Women feel strong spiritual, emotional, physical, and social benefits from fasting; it is seen as a way of maintaining cultural identity and unity among their communities [9].

Numerous studies have examined the health effects of fasting during pregnancy, and most have found that in healthy women with appropriate nutrition, fasting has no deleterious effects on pregnancy outcomes, fetal health and development, birth indices, or intellectual development in children of fasting mothers [8,10–17]. However, there have also been contrasting results: increased risk of low birth weight [16]; increased incidence of ketosis and ketonuria, vomiting, diarrhea, and dizziness [17]; and reduced fetal breathing movements [18]. Fasting during pregnancy has also been associated with increased frequencies of gestational diabetes, induced labor, cesarean delivery, and neonatal admission to the intensive care unit [19]. On the basis of the current literature, it is difficult to confidently determine the safety of fasting during pregnancy. Larger and more longitudinal studies need to be done to further evaluate and confirm health outcomes so that healthcare providers can more accurately advise their patients.

Meanwhile, there is little literature focusing on the unique needs, attitudes, and health concerns facing pregnant and postpartum Muslim patients [3,4,9,10,20,21]. It seems that most women are highly motivated to fast and believe that it is not dangerous to mother or fetus [4,9,21], but many women want to know how fasting could affect their pregnancy and how they can fast safely. These patients greatly value their prenatal care, and if they choose to fast, they want their providers to closely monitor the health of the fetus. However, many Muslim women avoid discussing prenatal fasting with their physicians for fear of being treated disrespectfully

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http://dx.doi.org/10.1016/j.ijgo.2015.07.028
0020-7292/

or being told to stop fasting without evidence indicating its harm [9]. The existence of cultural and religious differences can thus be a barrier to an open and trusting patient–doctor relationship. Lack of provider understanding of religious beliefs and practices perpetuates this problem, which impedes the ability of healthcare providers to offer the best possible patient-centered care. Physician understanding and accommodation of the needs associated with Ramadan fasting is one of the most important considerations among Muslim patients [9,22].

To our knowledge, only one study on patient attitudes about the Ramadan fast has been conducted in the USA [9], a country whose healthcare providers serve a diverse, multicultural population of Muslim patients. The aim of the present study was to gain further insight on the beliefs regarding the Ramadan fast during pregnancy held by Muslim women in the USA—specifically, women in southeast Michigan. The specific goals were to elucidate common perceptions about fasting, identify sources of guidance on prenatal fasting, and determine how healthcare providers can better serve pregnant Muslim patients, particularly during Ramadan.

2. Materials and methods

A cross-sectional study was conducted between July 8 and August 15, 2013. These dates were selected to include the month of Ramadan and 1 week after. The target population was pregnant and postpartum women in Michigan's metro Detroit area. This region is home to one of the largest Muslim populations in the USA, encompassing various ethnic groups, making it an ideal location to study religiously influenced attitudes and perceptions. Muslim women aged 18–50 years who had active obstetric records at the University of Michigan Health System and received care at university obstetrics/gynecology clinics in the study period were eligible. The study protocol was approved by the institutional review board at the University of Michigan Medical School. Participation was deemed to imply consent to be included in the study.

At scheduled appointments, an investigator (A.L.) was present to approach the patient, introduce the study, and invite them to participate in a written survey. The 28-question survey used was developed by the investigators and pilot-tested on five Muslim women for clarity; revisions were made as indicated. The survey elicited feedback on the women's perceptions of fasting during pregnancy, the factors influencing their decision to fast or not, and from whom they collect advice and information to aid their decision making. A question on physician characteristics that would help to foster trust was also included, with a Likert scale for ranking importance of characteristics. Demographics obtained included maternal age, parity, race/ethnic origin, marital status, education, employment status, and total household income.

Data were analyzed using Microsoft Excel 2013 (Microsoft Corporation, Redmond, WA, USA). Descriptive statistics were applied for all data.

3. Results

Of the 162 Muslim patients identified with active obstetric records, 44 had appointments during the study period and were approached in clinic. The survey was completed by 37 patients, giving a response rate of 84%. Among those surveyed 16 (43%) defined themselves as Arab, 9 (24%) as Asian, 3 (8%) as African-American, and 3 (8%) as white. Six (16%) selected "Other" as their ethnic group, with 4 (11%) stating they were African and 2 (5%) stating they were Chaldean.

Overall, 11 (30%) of the 37 women reported fasting for Ramadan during the current pregnancy or their most recent pregnancy, with two of these women reporting that they only fasted "sometimes." Four women were in the postpartum period and thus not pregnant during the current Ramadan. One of the four reported fasting in her most recent pregnancy, which fell during Ramadan; she was counted among the 11 who fasted. Of the 11 women who reported fasting during pregnancy, 7 (64%) were multiparous, all of whom had also fasted during previous pregnancies.

Among the 26 women who did not fast during their current pregnancy or most recent pregnancy that occurred during Ramadan, the most common reason for not fasting was pregnancy (n = 20; 77%) followed by the indication that fasting during pregnancy is not required (n = 8; 5%). Other reasons included nursing (n = 1; 31%) and that it is difficult (n = 1; 31%). Participants were able to mark as many reasons that applied to them. Twelve (32%) of the 37 women surveyed reported that the longer days in the summer affect their decision to fast during Ramadan; 3 (25%) of these women still chose to fast.

The most common symptoms that were encountered while fasting during current or past pregnancies and that were selected as reasons why women chose not to fast were fatigue (n = 14; 38%), weakness (n = 13; 35%), and fear for the fetus's health (n = 11; 30%). Other cited symptoms included nausea (n = 9; 24%), hunger (n = 9; 24%), vomiting (n = 3; 8%), abdominal pain (n = 3; 8%), and depression (n = 2; 5%).

Overall, 12 (32%) women felt that fasting in pregnancy is not harmful, whereas 17 (46%) women believed that fasting would be harmful to both themselves and their fetus. The remaining women considered fasting to be harmful to either themselves (n = 3; 8%) or their fetus (n = 3; 8%), or did not answer this question (n = 2; 5%). Therefore, 23 (62%) women considered fasting in pregnancy to be harmful in some way.

Among the 37 respondents, 28 (76%) reported that they did not consult others about fasting in pregnancy. Of the 7 (19%) women who reported that they did, consultants included healthcare providers, Muslim scholars, family or relatives, and friends (Table 1). The most influential people consulted were Muslim scholars, followed by family or relatives and healthcare providers (Table 1).

When asked to rate characteristics that would help participants to trust physician advice, 30 (81%) women indicated that the most important was "respectful of your beliefs," and the least important was "initiates support groups" (Table 2). Other valued characteristics were "knowledgeable about the month of Ramadan," "a good listener," and "supportive" (Table 2).

Of the 37 women surveyed, 36 (97%) felt they had a good understanding of Islamic laws about fasting established through a strong upbringing in an Islamic environment and exposure to the Qu'ran and other religious resources.

4. Discussion

Most participants in the present study did not fast during pregnancy and believed that fasting would cause harm to themselves, their fetus, or both. Most participants in the present study reported that they did not consult others about fasting, including their own physicians.

The present results differ from those of previous studies [4,9,21], which indicated that most Muslim women fast during pregnancy and perceive the act of fasting as safe or even healthy for themselves and their fetus. In a study by Robinson and Raisler [9], all the participants agreed on refraining from the fast only if it would harm the mother or child. In the present study, many women chose not to fast because of pregnancy itself and the fasting exemption for pregnant women. Other reasons for not fasting noted by participants in our study included

Table 1
People consulted about fasting (n = 7).

Person consulted	No. (%)	Rating[a,b]
Medical health provider (doctor or midwife)	5 (71)	3.0 (1–5)
Muslim scholar	5 (71)	3.4 (2–5)
Family or relatives	6 (86)	3.2 (2–5)
Friends	4 (57)	2.3 (2–3)

[a] Scale of 1 (least influential) to 5 (most influential).
[b] Values are given as mean (range).

Table 2
Important physician characteristics (n = 30).[a]

Physician characteristics	Rating[a,b]
Sensitive	4.67 (5.0)
Encourages you to consult with scholars	4.65 (5.0)
Knowledgeable about the month of Ramadan	4.11 (3.5)
A good listener	4.23 (4.0)
Respectful of your beliefs	3.17 (2.0)
Supportive	4.37 (4.0)
Gives you information (reading/audios/videos) about fasting while pregnant	4.52 (4.0)
Initiates support groups	6.54 (7.0)

[a] Scale of 1 (most important) to 8 (least important).
[b] Values are given as mean (median).

adverse symptoms, such as fatigue and weakness, and perceived harm to the fetus. The disparity between the present study and previous investigations could have several causes. First, the present study was conducted at a time when Ramadan occurred in the summer, and the increase in daylight hours affected some women's decision to not fast. Second, the previous US study [9] found that the incidence of fasting was higher among immigrant women than among US-born women; although immigration status was not measured as part of the present study, it is possible that the previous study surveyed proportionally more immigrants [9]. Robinson and Raisler [9] recruited most participants from religious organizations, and their results could suggest a strong influence of beliefs on fasting in individuals from a more Muslim country or devout community. Studies conducted in Pakistan [21] and Singapore [4] obtained results more in line with Robinson and Raisler in terms of the proportion of women who fasted. The present study surveyed women of several different races and ethnic origins who seek their care at university clinics within a small geographic area, and such women could have varying backgrounds and hold different views from those who receive care at community-based centers, even within the same region of the same state.

The fact that most participants in the present study did not consult their physicians could be attributed to fear of being treated disrespectfully, the belief that non-Muslim physicians do not understand Islamic fasting, or feeling no need to seek advice on fasting. Alternatively, patients' healthcare providers might not initiate the conversation on fasting while pregnant, so the topic is never broached.

For the women who did seek advice on fasting, the most influential individuals were Muslim scholars, family members and relatives, and healthcare providers. This supports previous findings that pregnant Muslim women highly regard the opinions of their healthcare providers [9], but suggests that there are several other potential sources of information influencing the decision to fast. When counseling a patient on fasting during pregnancy, prenatal care providers should be aware of these sources and understand how the patient's perspective could have been shaped by others.

Furthermore, the present study suggests ways in which physicians can more effectively build rapport with Muslim patients, thus making the patients more likely to seek and trust the physician's advice. The results indicate that the most important trait is being respectful of patients' beliefs, in addition to possessing knowledge about Ramadan and being a good listener. These findings overlap with and reinforce those reported previously [22]. It is important to respect and validate patients' concerns regarding religious fasting, and it also could be helpful to provide the patient with information—in the form of pamphlets, audio, or video—on fasting during pregnancy, along with verbal advice or referrals to nutritionists [9]. As a physician, simply asking a pregnant Muslim patient about her plans or views on Ramadan fasting could indicate to her that her physician understands and respects her Islamic religious requirements. Additionally, the patient could view this as a provider's willingness to begin a discussion about fasting and offer advice on whether or not it is safe for her during pregnancy.

Limitations of the present study include a small sample size of 37 and a sample taken from only one academic institution, which could attract a specific population of patients that could be less generalizable than one sampled from a greater breadth of medical centers. Measuring participants' statuses as either immigrant or American-born would also have been helpful in supporting previous data on differing attitudes between the two groups.

The diversity of the US population necessitates that US healthcare providers become more educated in cultural and religious practices that can affect patients' health. In addressing the needs of a pregnant Muslim patient, it is important to consider her religious beliefs and how they affect her attitudes and behaviors. With Ramadan, prenatal care providers should proactively initiate the discussion of fasting during pregnancy, especially for women who want to fast, because they might not bring up the topic themselves for various reasons. This can be easily introduced to the clinic setting by including questions about prenatal fasting in the initial prenatal assessment and again at the time of Ramadan. When encountering a patient who desires advice on whether or not to fast during pregnancy or how to fast safely, it could be most prudent to consider the patient's individual health status, her own risks of fasting, and how she can minimize these risks. Robinson and Raisler [9] provided recommendations; sensitive, nonjudgmental counseling that provides evidence for recommendations could be better received by patients.

In summary, even in a small geographic area, there are differences among patients in perceptions, motivations, and influences on their beliefs and behaviors. At the study institution, most patients chose not to fast during pregnancy and felt it was harmful to mother, fetus, or both, contrasting with previous results. This makes it even more important for healthcare providers to educate themselves about which topics to discuss to provide more holistic, compassionate care to each patient on an individual basis. Muslim women value the opinions of physicians, and will be more likely to trust healthcare providers and be more forthcoming if providers are respectful of beliefs, knowledgeable about religious practices, supportive, and understanding of views that come from other important individuals. Ultimately, patients will make their own decisions, but physicians must ensure that they remain healthy, safe, and informed in whichever choices they make.

Conflict of interest

The authors have no conflicts of interest.

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