D. "Each One Is a Doctor for Herself": Ramadan Fasting Among Pregnant Muslim Women in the United States

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Background and Significance

Fasting during the Islamic month of Ramadan is a religious obligation for all healthy adult Muslims.[1] This practice involves abstaining from all food and liquids from dawn until sunset for 29 or 30 consecutive days. Since the Islamic calendar is shorter than the solar calendar, Ramadan slowly rotates through the seasons. Thus, the total period of fasting can range from less than 12 hours to as much as 19 hours each day.

Ramadan occurs during the majority of pregnancies. Pregnant women may delay the fast if they fear for their health or that of the baby. Like all Muslims who cannot fast, they must make up the missed days by fasting at a later time, or in some cases, by feeding a poor person for each day that they did not fast.[2,3]

No research was found in the United States about religious fasting during pregnancy. Research in other countries, however, found that most pregnant Muslims do fast.[4–7] This exploratory qualitative study examined the practice of Ramadan fasting among pregnant Muslim women in Michigan in order to provide insight into their beliefs, attitudes, decision-making, and experiences in the healthcare system.

Review of the Literature

A large body of evidence demonstrates the safety of Ramadan fasting for healthy non-pregnant adults. Some people with stable chronic medical conditions can also fast safely.[1,8–17] A British study found that non-pregnant Muslim patients rarely discussed fasting with their healthcare providers.[18]

Research about Ramadan fasting during pregnancy has not demonstrated any effect on Apgar scores, birth weight, gestational age at delivery, or infant well-being.[19–21] Fasting for less than 15 hours is not metabolically different from a physiological overnight fast for the healthy pregnant woman. Ketonemia and hypoglycemia frequently occur with more prolonged fasting; however, there is no evidence that this affects infant outcomes.[4,6] Non-stress tests are more likely to be non-reactive during the period of fasting, but return to reactivity after dinner.[22,23] Stable gestational persons with diabetes who fast experience no increase in hypoglycemic symptoms and have improved glucose control.[24]

Although the research to date is generally reassuring, there is inadequate evidence to conclude that prenatal fasting is safe. Many of the existing studies are small or methodologically flawed. Some theoretical risks of Ramadan fasting have not been studied, such as its effect on amniotic fluid volume.[25,26] The literature also raises yet unanswered questions about its effect on the incidences of asymptomatic bacteriuria[27] and hyperemesis gravidarum.[28]

Research Methodology

A convenience sample of 32 Muslim women was recruited by leaflet and word-of-mouth from several Muslim communities in southeast Michigan. This area is home to a diverse population of native and immigrant Muslims, including many recent refugees and one of the largest and oldest Arab communities outside of the Middle East.[1,29] Participants had all been pregnant during Ramadan, but were not prospectively

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Table 1. Demographic characteristics of the sample

	N	Fasted Last Pregnancy *N*
Ethnicity		
African-American	6	4
Arab—raised in United States	5	2*
Arab—immigrant	18	17
European-American	1	1
Other immigrant	2	2
Age		
21–25	2	2
26–30	19	13†
31–35	4	3†
36–40	7	6
41–45	1	1
Para (total)	85	
0	1	0
1	4	2
2	9	9
3	9	6†
4	9	8†
Pregnant at time of interview	12	
Education		
Less than high school	4	3
High school	6	5
Some college	17	12*
Postgraduate	5	5
Annual income		
<$20,000	16	15
$20,000–$40,000	5	4
>$40,000	10	6*

* Two did not have Ramadan during the pregnancy, but fasted in their other pregnancies.
† One did not have Ramadan during last pregnancy.

screened for whether or not they had fasted. Demographic characteristics of the sample are described in Table 1. Each woman participated in one of six tape-recorded focus groups lasting 1½ to 2 hours. All groups contained women who had and had not fasted during their most recent pregnancy. The tapes were transcribed and analyzed using Atlas II software.[30,31]

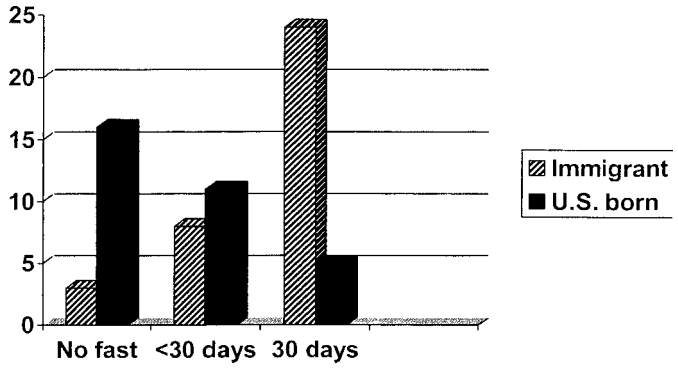

Fig 1. Reported fasting behavior for all pregnancies

RESULTS

Incidence of Fasting

Overall, 28 of the 32 women chose to fast for some time during at least one pregnancy. Thirty of the women had been pregnant during Ramadan within the previous two years. During that pregnancy, five of them did not fast at all. Sixteen fasted throughout the entire month. The remaining women fasted intermittently because of health concerns. Immigrant women fasted more days than those who were born in the United States (mean=25 vs 13 days, respectively).

Participants reported that 60%–90% of women in their communities in the United States fast during pregnancy. They agreed that American-born women are less likely to fast than are immigrant women, and estimated that the incidence of fasting among American-born pregnant Muslims was 30%–50%. These estimates were consistent with the actual reported fasting behavior of the focus group participants (Figure 1).

Beliefs and Practices

A recurring theme in every group was that, for many women, fasting was simply the normal thing to do—not something that they actively decided. One participant explained:

"I just assumed that I would fast and see how it goes. If, after a day or two, I found I could not do it, then I would stop."

All but two women believed that fasting during pregnancy is safe for healthy women. They explained that total food intake is the same as when not fasting, and that the fetus "takes its nourishment first." Four women stated that fasting during pregnancy is not only safe, but also healthy. All participants agreed that a woman should not fast if it would hurt her or the baby, and

this was the only reason mentioned for not fasting. They identified warning signs, such as fatigue, excessive hunger or thirst, nausea and vomiting, weakness, and pre-existing or acute illnesses. Another participant declared:

"Each one is a doctor for herself. She knows when she should fast and when she should break her fasting."

Eight participants said that women might not be aware if they were harming their baby. One woman recalled a time when her husband had encouraged her to stop fasting, and commented:

"Sometimes we have in our mind, 'Oh, I can do this,' and we lose sight of all the things that are going wrong. Family members sometimes, you know, have a different point of view."

Influences

Women fasted because they felt passionately about the benefits of Ramadan. One woman described Ramadan as a time "to charge my spiritual battery."

"Ramadan for me is a phase of time where I reduce my obligations outside and focus inward. . . . It's hard to explain to non-Muslims that fasting is a very kind thing for a Muslim body, spirit, and soul."

When women had health problems, family members and religious advisors invariably advised them to discontinue fasting. Husbands, in particular, tended to discourage prenatal fasting. One participant sought advice from a religious leader after her doctor told her to stop fasting: "He told me, 'If you can't do it, don't do it. That will actually become *haraam* (impermissible) in the eyes of God because you're endangering yourself. Don't let this ego, this stubbornness, get in the way of it.' " Ultimately she stopped fasting, but not before she consulted with several other people. She emphasized, "You can put a thousand people in front of me, but if I'm still not convinced by my own research, then it's not going to matter."

Women who were unable to fast wanted their doctors to know how difficult this was for them. They animatedly discussed disadvantages, such as a decreased sense of connection with the community, loss of the feeling of Ramadan, feeling guilty, and having to make up missed days. Many women described her childhood memories of Ramadan in vivid detail. One woman explained that fasting was one of the ways that she maintained her sense of cultural identity and concluded, "I know I do things with my kids now in Ramadan that my Mom used to do with me. And if you're not fasting, you kind of feel like you're falling out of that whole equilibrium of memories."

Communication with Healthcare Providers

All focus group participants had received, and strongly valued, prenatal care. Questions about communication with their providers stimulated emotional responses in every discussion. Many women said they avoided talking about prenatal fasting because they did not want to be treated disrespectfully or to be told to stop fasting. Others simply felt that they did not need advice.

Nineteen women discussed fasting at a prenatal visit during at least one pregnancy. Thirteen of these had initiated the discussion with their doctor, most frequently when they were pregnant with their first child. Five women experienced their doctor as judgmental or disrespectful. One recalled, "She told me, 'How can you stand it? And now you are pregnant. That's too much for your body.' So I keep remembering how her face looked when she said that. It makes me feel like I know something she doesn't know."

A recurring theme in every group was that participants would not necessarily follow medical advice to fast. This was true whether or not the woman initiated a discussion about fasting with her provider. As one person explained, "We ask, but we do not hear him. What he is saying is for himself. But only we go to ask if it's good to fast or not good to fast. If he says 'no,' we do not obey him. It is a only matter of asking."

Later one participant clarified that Muslims are obligated to avoid harm. All participants in every group agreed with her assertion—"We want to obey the scientific idea of the doctor. If we don't do that, we will have a sin. But we ask them to convince us scientifically. We ask the doctors to give us proof—to show [us] pictures or videos, or make special programs to speak about these things, and then we will obey them."

On Building Positive Patient-Provider Relationships

Most women wanted help in assuring a healthy pregnancy outcome. The most common needs that they expressed were to receive more information about fasting and to have their caregiver monitor the baby's well-being. They recommended providing handouts, verbal advice, and referrals to specialists, such as a nutritionist or a knowledgeable Muslim nurse. Women who felt that their healthcare provider (HCP) was knowledgeable about Islamic fasting were most likely to follow the advice.

The six women who mentioned that their HCP had given them advice about how to fast safely were the ones who described their experiences most positively. One recalled, "She told me, 'If you feel fine—nothing is wrong, everything is going well, and the day's short, then you can fast. Make sure you: drink plenty of water, and feel the baby movement.' And when she saw me on the next visit, she asked me, 'Are you still fasting?' She asked me 'How are you feeling?' and she told me 'Everything is fine.' "

DISCUSSION

Findings from these focus groups clearly indicate that fasting during Ramadan is an important area of concern for childbearing Muslim women in southeast Michigan. Thirty of 32 participants

in this study preferred to fast if it would not harm them or their baby, and 28 did so at some point during at least one pregnancy. These women expressed a high degree of autonomy about their decision-making and often did not discuss fasting with their healthcare providers. Only six women described a time when a healthcare provider brought up this issue. They invariably appreciated this as long as it was done in a non-judgmental manner. Many felt their providers were inadequately informed about this subject.

While it is reasonable for providers to be concerned about dehydration, hypoglycemia, and nutritional intake when pregnant women fast during Ramadan, there is a lack of evidence to support routine prohibition of fasting, especially during the shorter days of winter. Furthermore, blanket prohibitions are often rejected by women who have decided to fast. A more acceptable strategy may be to provide balanced information about the risks and benefits of fasting, advice on how to minimize risks, and a list of warning signs of complications (Table 2). Caregivers can encourage open communication by gently raising the issue on repeated visits, scheduling more frequent opportunities for discussion, and monitoring. It may be valuable to perform more frequent urine cultures and initiate earlier antenatal testing for fasting women. It is advisable to schedule Non-Stress Tests (NSTs) at a time when the woman is not fasting.[32] Referrals to resources, such as nutritionists and community-based health educators, can be helpful.

A limitation of this study is the self-selection of participants. Muslims who are neither Arab nor African-American were under-represented, as were certain subgroups of the Arab community, particularly Yemeni women. Most participants were recruited from religious or healthcare organizations. Women who are less religiously observant or more isolated from such institutions could have different opinions and experiences.

Table 2. Recommendations for provider intervention

Ask pregnant Muslim patients if they plan to fast during Ramadan:	- Explore what influences her decision - Inquire reasons she might decide not to fast - Discuss perceived disadvantages of not fasting - Assess plan to ensure adequate nutrition and fluids
Assess for risk factors that might preclude fasting safely:	- Insulin-dependent diabetes - Any condition that requires medications during the day - History of renal stones, preterm delivery, poor obstetrics outcome - Peptic ulcer disease - Malnutrition - Strenuous physical activity - Ramadan occurring in summer months

Provide information about how to fast safely:	- Diet:
	  - Stop caffeine and cigarettes gradually in advance
	  - Get up for *sahoor* (AM meal)
	  - Eat high fiber, whole grains, fruits, vegetables, nuts
	  - Avoid excess salt, sugar, and caffeine
	  - Drink water, milk, and juice just before dawn
	  - Breakfast with water and dates (this is a tradition)
	  - Balanced, nutritious evening meal, and plenty of fluids
	  - Bedtime snack including water or juice, protein, and fruit
	  - Activity: avoid strenuous physical activity; get adequate sleep
	  - Stay cool during day

Discuss warning signs:	- Decrease fetal movement at night - Irritability, headache, excessive hunger or thirst - Nausea/vomiting - Dysuria, fever, flanks pain - Weakness, fatigue, lightheadedness, dizziness - Preterm contractions
Increase prenatal supervision:	- Schedule visits to allow maximum rest - Offer written information - Refer to nutritionist and/or community-based nurse - Encourage keeping diet history including fluids - Follow-up at each visit during Ramadan - Urinalysis and culture weekly or semi-weekly - Have women test for ketones in afternoons

If there is a medical reason not to fast:	- Carefully explain why it may be harmful
	- Explore what not fasting would be like for her
	- Encourage other ways to observe Ramadan
	  - Prayers at home and at mosque; reading Qur'an
	  - Charitable activities; cooking for others
	- Encourage consultation with religious leader and family
	- Consider a short trial of fasting with close monitoring
	- Follow up and explore how not fasting is affecting her

On the other hand, a recent nationwide survey concluded that 71% of Muslims in the United States are active in religious organizations; almost half perform all five daily prayers on a regular basis; and young adult Muslims are more likely to be religiously active than are older members of the community.[32]

CONCLUSION

The results of this study support the belief that Ramadan fasting is important to Muslim patients, including pregnant women. Far from being a hardship or form of self-imposed suffering, Muslims value fasting as a practice that contributes to their spiritual, psychological, physical, and social health. The informed prenatal care provider should work with his/her Muslim patients in a manner that respects their desire to fast while helping them ensure its safety. When fasting is dangerous, he/she should address this concern with sensitivity and compassion, providing ample evidence to support his/her recommendations.

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