



<http://www.elsevier.com/locate/jegh>

Predictors of Ramadan fasting during pregnancy



Lily A. van Bilsen^{a,1}, Ary I. Savitri^{b,*}, Dwirani Amelia^c,
Mohammad Baharuddin^c, Diederick E. Grobbee^b,
Cuno S.P.M. Uiterwaal^b

^a *Leiden University College The Hague, Faculty of Governance and Global Affairs, Leiden University, The Hague, The Netherlands*

^b *Julius Center for Health Sciences and Primary Care, Julius Global Health, University Medical Center Utrecht, Utrecht, The Netherlands*

^c *Maternal and Child Care, Budi Kemuliaan Hospital, Jakarta, Indonesia*

Received 25 February 2016; received in revised form 20 May 2016; accepted 5 June 2016

Available online 30 June 2016

KEYWORDS

Motivations;
Predictors;
Pregnancy;
Ramadan fasting

Abstract Although the health effects of Ramadan fasting during pregnancy are still unclear, it is important to identify the predictors and motivational factors involved in women's decision to observe the fast. We investigated these factors in a cross sectional study of 187 pregnant Muslim women who attended antenatal care visits in the Budi Kemuliaan Hospital, Jakarta, Indonesia. The odds of adherence to fasting were reduced by 4% for every week increase in gestational age during Ramadan [odds ratio (OR) 0.96; 95% confidence interval (CI) 0.92, 1.00; $p = 0.06$] and increased by 10% for every one unit increase of women's prepregnancy body mass index (BMI) (OR 1.10; 95% CI 0.99, 1.23; $p = 0.08$). Nonparticipation was associated with opposition from husbands (OR 0.34; 95% CI 0.14, 0.82; $p = 0.02$) and with women's fear of possible adverse effects of fasting on their own or the baby's health (OR 0.47; 95% CI 0.22, 1.01; $p = 0.05$ and OR 0.43; 95% CI 0.21, 0.89; $p = 0.02$, respectively), although they were attenuated in multivariable analysis. Neither age, income, education, employment, parity, experience of morning sickness, nor fasting during pregnancy outside of Ramadan determined fasting during pregnancy. Linear regression analysis within women who fasted showed that the number of days fasted were inversely associated with women's gestational age, fear of possible adverse effects of fasting on their own or the fetal health, and with opposition from husbands. In conclusion, earlier gestational age during Ramadan, husband's opinion

* Address: University Medical Center Utrecht, Division Julius Centrum Huispost Stratenum 6.131, PO Box 85500, 3508 GA Utrecht, The Netherlands.

E-mail address: a.i.savitri@umcutrecht.nl (A.I. Savitri).

¹ Contributed equally to the manuscript.

Peer review under responsibility of Ministry of Health, Saudi Arabia.

<http://dx.doi.org/10.1016/j.jegh.2016.06.002>

2210-6006/© 2016 Ministry of Health, Saudi Arabia. Published by Elsevier Ltd.

This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

and possibly higher prepregnancy BMI, influence women's adherence to Ramadan fasting during pregnancy. Fear of adverse health effects of Ramadan fasting is common in both fasting and non-fasting pregnant women.

© 2016 Ministry of Health, Saudi Arabia. Published by Elsevier Ltd. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

1. Introduction

Ramadan is a month according to the Islamic calendar when adult Muslims perform daylight intermittent fasting. Among the approximately 1.6 billion Muslims worldwide [1], we estimate that there are some 300–400 million Muslim women of childbearing age. Although obligatory for all healthy adults and adolescents, Islamic law exempts pregnant and breastfeeding women from fasting. As Ramadan lasts for 1 month in a Lunar calendar, Ramadan fasting will overlap with pregnancy in every three of four births accounting for ~1 billion Muslims alive today who were *in utero* during Ramadan [2]. Despite the exemption, most pregnant women still fast.

There could be health effects of fasting on mothers and fetuses, although no consensus was established on the matter. Several studies showed that prenatal exposure to Ramadan fasting may result in lower birth weight, increased risk of hyperemesis gravidarum, urinary tract infections, and reduction in fetal breathing movements [2–5]. By contrast, many other studies showed no effect of fasting on intrauterine growth, birth weight, birth-time indices, and amniotic fluid index [6]. It has been suggested that fasting during pregnancy may also have long-term implications for the health of offspring, possibly through fetal programming [7]. *In utero* exposure to Ramadan has also been reported to be associated with children's lower cognitive test and math scores and fewer working hours in adulthood [8].

Given the lack of consistent health information about Ramadan fasting and the high proportion of pregnant women that adhere to fasting, it is important to know the motivations for or against fasting during pregnancy. There is a gap of knowledge concerning motivations for the decision of pregnant women to fast during Ramadan. Most research focuses on attitudes and knowledge on the exemption law [9]. For women insisting to fast, it is crucial that knowledge is assembled to understand their motivations. This will prove useful for doctors and health workers, religious advisors, and women's peers, to adequately counsel Muslim pregnant women with regard to Ramadan fasting. In the present study of pregnant women, we

evaluate factors that influence women's adherence to Ramadan fasting.

2. Material and methods

2.1. Study population

This cross sectional analysis was conducted within an established prospective cohort of pregnant women in a private hospital specializing in maternal and child health services, Budi Kemuliaan Hospital, Jakarta, Indonesia. Pregnant women were recruited to the cohort during their regular first visits for antenatal care. All pregnant women attending visits were invited to join the study and if agreed, signed written informed consent. Participants were examined and interviewed by midwives according to standard clinical care and were followed up until they gave birth. This study was ethically approved by the Institutional Review Board of Budi Kemuliaan Hospital. Women, who paid an antenatal care visit before or during the month of Ramadan (from 10 July 2013 to 7 August 2013), were also asked to join this study. After the midwives gave an explanation, women who agreed gave their informed consent.

2.2. Data collection

Data on women's fasting adherence were collected using a daily self-administered questionnaire. During their antenatal care visit, women were provided with a questionnaire. They were asked to fill in the questionnaire every day during the month of Ramadan, indicating whether they fasted per day. After Ramadan, the women were asked to return the questionnaire to the midwives.

Furthermore, at their visit during the month of Ramadan, these women were also interviewed about factors that influenced their decision to fast or not to fast. Women were given several alternative answers for their motivations, which they ticked if they agreed with the statement. If their motivations were not included in the questionnaire, women were allowed to provide their own answer.

Women who indicated that they had fasted for 1 day or more were classified as having adhered to Ramadan fasting during pregnancy, while women

Download English Version:

<https://daneshyari.com/en/article/5662929>

Download Persian Version:

<https://daneshyari.com/article/5662929>

[Daneshyari.com](https://daneshyari.com)