

Menstrual Suppression Practice among Female Malaysian Pilgrims

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ABSTRACT

INTRODUCTION: Performing the Hajj or pilgrimage is obligatory for all Muslims. Certain Hajj religious rites cannot be performed during menstruation. Hence, it is common for female pilgrims to seek a doctor's advice on methods of menstrual suppression during Hajj. This exploratory study aimed to determine the prevalence and usage profile of menstrual suppression practices among Malaysian women performing Hajj and their associated factors.

MATERIALS AND METHODS: An observational cohort study involved 437 women aged 18-55 years old who attended compulsory pre-Hajj courses in Klang Valley, Malaysia. The self-administered questionnaires contained sociodemographic information, and biomedical characteristics were obtained. A follow-up call was made after their return from Hajj to obtain information regarding practice, medication is taken, and their intended duration of menstrual suppression. Descriptive and inferential analysis were done. **RESULTS:** Post Hajj, about 81.3% (347/437) of women were contactable and completed their menstrual calendar and 17.6% (62/347) of female pilgrims practiced menstrual suppression. The mean duration of hajj was 44 days and 77.4% (48/61) intended to suppress their menstruation throughout the whole of their Hajj travel. Previous use of contraception was associated with menstrual suppression practice ($p < 0.001$). The commonest method of menstrual suppression was combined oral contraceptive pills (53.2%) followed by oral progestogens only pill (35.5%). **CONCLUSION:** Almost one-fifth of Malaysian female Hajj pilgrims practiced menstrual suppression. Previous use of contraception was associated with menstrual suppression practice. Combined oral contraceptive pills were the commonest method used and the method was chosen was based on the individual desired duration of menstrual suppression.

KEYWORDS: women, female, pilgrimage, menstrual suppression, Hajj,

INTRODUCTION

Performing the Hajj or pilgrimage to Mecca at least once in a lifetime is one of the pillars of Islam which is compulsory for all Muslims. Women in their reproductive age group make up about one-quarter of Hajj pilgrims. During menstruation, women are

forbidden to pray, fast, touch, and embrace the Quran, sit in the mosque, circumambulate (tawaf), and cannot be divorced.^{1,2,3} Circumambulation is one of the pillars of the pilgrimage and it is a compulsory element for every pilgrim. Some female pilgrims may prefer to suppress their menses during Hajj to allow them to complete their religious rites within the limited time given.

Menstrual suppression is defined as "manipulation of monthly menstruation using hormonal medications".⁴ In general, women practice menstrual suppression for various reasons such as to alleviate troublesome symptoms^{4,5} and to control the timing of menstruation

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for important events.^{6,7} Menstrual suppression was practised among undergraduate students⁸ and in India during the fasting month of Ramadhan.⁹

There are various religious opinions on the use of menstrual pills. Al-Imam al-Bahuuti al-Hanbali Rahimahullah had stated that it is permissible to take medicine to suppress menstruation provided they do not cause harm.¹⁰ Some argue that menstrual suppression is not necessary during Hajj, as only certain religious rites of Hajj, which is 'tawaf', cannot be performed during menstruation; therefore, women can wait until they are clean before performing 'tawaf'.¹¹ However, the opportunity to perform Hajj maybe only once in a lifetime event for many, because of its high cost and a limited annual quota of pilgrims per country set by the Saudi Arabian government.¹² The issue of menstrual suppression using medication by female pilgrims was discussed in the Malaysian 33rd (2016) National Muzakarah Hajj.¹³ Female pilgrims are allowed to use menstrual pills to prevent or to shorten the duration of menstruation to allow them the opportunity to worship during the hajj (especially during Masya'ir: the most important phase of hajj). However, they are encouraged to consult and to follow all instructions given by the doctor to avoid menstrual problems.^{13,14}

There are many methods of suppressing or delaying menses.^{5,15,16} The choice of methods should be individualised depending on their necessity, medical history, side effect profiles of the options, and woman's preference.

Most female Hajj pilgrims require only short-term menstrual suppression during the 1-2 months Hajj period. There are currently no guidelines for healthcare providers regarding the selection of methods of menstrual suppression. Due to the lack of evidence and guidelines, physicians are often left to prescribe medications based on their judgement and clinical experience.

There was extremely limited literature documenting the practice of menstrual suppression among female Hajj pilgrims. To the best of our knowledge, only one study among 116 female Nigerian pilgrims¹⁷ was done, where 16.7% practiced menstrual suppression. Their practice was found to be associated with their occupation and

previous use of contraception. Interestingly, awareness about the availability of menstrual suppression options did not influence their practice.

This exploratory study is therefore intended to determine the prevalence of menstrual suppression practice among Malaysian female Hajj pilgrims, its usage profile, and associated factors. This paper will provide much-needed baseline data for future research in this field, and guide female pilgrims and doctors in decision-making.

MATERIAL & METHODOLOGY

This study was part of an observational cohort study conducted from May 2014 to December 2015. Data collection was done after obtaining ethical approval from the Institutional Ethics Committee (FF-2014-240), and the Ministry of Health Medical Research and Ethics Committee (NMRR ID No: NMRR-14-545-21311). Permission to conduct the study was also granted by Lembaga Tabung Haji (LTH) or Pilgrim's Management Fund Board. We studied all female pilgrims who were scheduled for their Hajj pilgrimage with LTH in 2014 with regular menstrual cycles. The recruitment was from the compulsory pre-Hajj intensive courses organised by LTH at 4 different venues in Kuala Lumpur. Pregnant women and women with menstrual irregularities due to known gynaecological pathology were excluded from the study.

STUDY INSTRUMENTS

A data collection form comprising of 6 parts and a menstrual calendar was used. They were comprised of :

- Part 1:** Socio-demographic information and contact details
- Part 2:** Hajj itinerary and travel information
- Part 3:** Basic medical or surgical history
- Part 4:** Gynaecological history
- Part 5:** Contraceptive history
- Part 6:** Menstrual Suppression Practice

The data collection form was pre-tested among 10 women attending a public health clinic to ensure clarity and comprehensibility. Amendments were done based on the pre-test feedback. The revised data collection

form underwent a further 2 rounds of pre-testing and amendments before it was deemed satisfactory.

DATA COLLECTION

The recruitment of the study subjects was done during compulsory 2-day intensive preparatory pre-Hajj courses organized by LTH in Kuala Lumpur. Pilgrims who have been offered to perform their Hajj pilgrimage in the year 2014 had to attend these courses at the nearest designated course locations. These courses were carried out in batches of about 150-200 pilgrim candidates each. During the pre-Hajj intensive courses, a brief explanation of the study was given to all women. Women who agreed to be enrolled in the study and fulfilled the inclusion criteria were given informed consent and were asked to fill up the Part 1 to Part 5 forms which were returned to the researcher on the same day. The part 6 form was kept by the respondents and returned to the researcher via mail after Hajj. The respondents who failed to mail the form were contacted via telephone to gather information regarding whether they had practiced menstrual suppression, medications are taken and their intended duration of menstrual suppression.

Since this was an exploratory observational study, respondents were free to choose whether to practice menstrual suppression during Hajj, to consult any doctors, and to decide on the preferred menstrual suppression methods. The researcher did not make any suggestions or prescriptions during recruitment.

STATISTIC

Data was entered into the IBM Statistical Package for Social Science (SPSS) software version 21.0 for statistical analysis. Descriptive statistics for categorical data were described as frequencies and percentages, while continuous data, which were normally distributed, were described as means and standard deviations. Inferential analyses were conducted using Pearson Chi-square or Fisher Exact test for categorical data, and Student t-test for normally distributed continuous data.

The dependent variable in this study was the practice of menstrual suppression. The independent variables

were the socio-demographic variables and clinical characteristics.

RESULTS

A total of 427 eligible respondents returned their respondents' information sheet during the study period. Seventy-five women (17.6%) were excluded from the analysis due to various reasons, giving a completion rate of 81.3% (N=347).

Baseline characteristics of study participants

The mean age of participants was 42.00 ± 0.34 years old which indicates most of the female pilgrims were in their reproductive age. Most of them were Malays (99.4%) and the other 2 (0.6%) were Bumiputera from Sabah/Sarawak. They had attained tertiary education (73.8%). Around half had a history of contraceptive use in the past (47.6%). The mean duration of Hajj was 44.00 (± 5.40) days. (Refer to Table I)

The prevalence and profile of menstrual suppression practice during Hajj among women pilgrim

The prevalence of menstrual suppression practice during Hajj among this cohort of female Hajj pilgrims was found to be 17.6%. (Refer to Table I)

About half of the women used COCP for menstrual suppression (42% used COCP containing 30 micrograms Ethinylestradiol, 11% used COCP containing 20 micrograms Ethinylestradiol). Oral progestogens (35.5%) were the second most popular choice, followed by intramuscular Depo Provera (4.8%). Antifibrinolytics such as tranexamic acid (1.6%) and non-steroidal anti-inflammatory drugs mefenamic acid (4.8%) were less prescribed. (Refer to Table II)

Intended Duration For Menstrual Suppression Practice

Among those who practiced menstrual suppression, all women who took COCP intended to achieve total amenorrhea throughout Hajj duration, whereas in the oral progestogen group, half of them (54.5%) intended

for total amenorrhoea while another 45.5% intended to delay menses over a short duration. (Refer to Table III)

Table I: Selected sociodemographic, medical characteristics and profile of menstrual suppression practice among female Hajj participants. (N=347)

Variables		Mean (SD)	N=347	
			n	(%)
Age (years)		42.00(0.34)		
Race	Malay		345	99.4
	Others		2	0.6
Level of Edu-cations	Primary		8	2.3
	Secondary		83	23.9
	Tertiary		256	73.8
Occupations	Government		121	34.9
	Private		107	30.8
	Self employed		13	3.7
	Home maker		96	27.7
	Retiree		1	0.3
	students		9	2.6
Parity		3.00 (2.00)		
Previous Contraceptive Use	Yes		165	47.6
	No		182	52.4
Duration of Hajj (days)		44.00(5.40)		
Menstrual Sup-pression Practice	Yes		61	17.6
	No		286	82.4

Factors associated with menstrual suppression practice during hajj/pilgrimage

Bivariate analysis showed that previous use of contraceptives is associated with menstrual suppression practice. The proportion of menstrual suppression practice among ever-users of contraception (30.0%) was more compared to never-users of contraception (10.0%) ($p < 0.001$). Menstrual suppression practice was not associated with socio-demographic factors or parity. (Refer to Table IV)

DISCUSSION

This is the first local study on the prevalence of menstrual suppression practice during Hajj. The prevalence of menstrual suppression practice among

women pilgrims was 17.6%, which is comparable to the Nigerian study (16.9%).¹⁷ Menstrual suppression practice for non-religious reasons was also found to range between 12 to 21%.^{7,8} This showed that the prevalence of menstrual suppression practice worldwide is similar, despite coming from different backgrounds and different reasons.

Table II: Methods used by women pilgrim during Hajj to suppress menses.

Method used for menstrual suppression	N=61	
	f	%
30mcg COCP	26	41.9
20mcg COCP	7	11.3
Oral progestogen	22	35.5
Intramuscular Depo Provera	3	4.8
Tranexamic acid	1	1.6
Mefenemic acid	3	4.8
TOTAL	*62	100

*one respondent had taken 2 types of NSAID

The low prevalence found in this study could be due to conflicting views from religious authorities regarding menstrual suppression practice during hajj. Some discourage menstrual suppression practice as menstruation is a natural process and the fear that it may cause heavier bleeding than usual and irregular bleeding, which interferes with Hajj rites.¹¹ Others permit the practice of menstrual suppression, provided that a doctor has approved that it is safe for individual women to do so.^{14,18} This may affect their confidence to attempt menstrual suppression for Hajj.

Methods used for menstrual suppression during Hajj

Among all methods, COCP was found most popularly used in this study, with around half of women (53.2%) utilized this method for menstrual suppression during

Table III: Intention to suppress menses duration

Factors	Intention to suppress menses durations N= 61	
	Complete n (%)	Partial n (%)
Method used for menstrual suppression		
COCP	33 (100)	0 (0)
Progestogens (oral)	12(54.5)	10(45.4)
Progestogens (IM Depo)	3 (100)	0(0)
NSAIDS	0(100)	*4(100)

Hajj. COCP was also the method of choice in the Nigerian study.¹⁷ COCP is among the well-studied drug for menstrual suppression. Usage of extended cycling of COCP had been described since the 1970s where most women reported infrequent menses (82%), lesser menstrual problems (20%), and easier pill-taking (19%).⁹ Moreover, various randomised control trials and systematic reviews have proven that extended cycling and continuous of COCP is effective, safe, and well-tolerated.¹⁹⁻²⁵ COCP with higher oestrogen content has better cycle control and lesser unscheduled bleeding compared to lower oestrogen containing COCP.¹⁶ However, it has higher rates of adverse effects due to the higher oestrogen content.

Table IV: Relationship between selected socio demography and medical characteristic with practice of menstrual suppression among women pilgrim. (N=347)

Variables	Practice Menstrual Suppression N=347		Statistical Test (df)	p-value
	Yes n=61 n (%)	No n=286 n(%)		
Age (Years) Mean SD	42.21 (6.14)	41.94 (6.38)	^a 0.230 (345)	0.763
Education Level				
Primary	2(25.0)	6 (75.0)		
Secondary	12(14.5)	71(85.5)	^b 0.97	0.616
Tertiary	47(18.4)	209 (81.6)		
Occupation				
Government	22(18.2)	99(81.8)		
Private/Self-Employed	22(18.3)	98(81.7)	^b 0.251	0.882
Not working/Student	17(16.0)	89(84.0)		
Parity (Mead SD)	3.08 (2.00)	2.97 (2.00)	^a 0.40(345)	0.691
Previous use of Contraception				
Yes	43(26.1)	122 (73.9)	^b 15.62	<0.001
No	18(9.9)	164 (90.1)		

a = Student t-test b χ^2 Pearson

Progestogens (35.5%) were the second commonest method of menstrual suppression in this study. Oral norethisterone 10-20 mg per day is used to stop heavy menstrual bleeding or to regulate bleeding.²⁶ Therefore it is used as an alternative to delaying menstruation. However, studies have shown conflicting evidence of its

efficacy in inducing amenorrhea.^{26,27,28} It can cause irregular bleeding and spotting in new users, due to the initial shedding of their existing endometrial lining.⁴ However, this is less problematic with short term use to suppress menses during the pilgrimage, and is an alternative for women for whom oestrogen-based methods are not suitable, such as women with migraine or a history of venous thromboembolism.

Intramuscular medroxyprogesterone acetate (Depo Provera) was only used by a minority of women in this study (4.8%). It can suppress menstruation for up to 12-14 weeks. The low use of intramuscular medroxyprogesterone acetate among our study populations was not explored. However, the intramuscular route was being less favoured could be due to its late onset of action and delay in the resumption of normal menstrual cycles.

Hormonal methods of menstrual suppression need time to be effective. Women who were late in requesting menstrual suppression were offered tranexamic acid (4.8%) and mefenamic acid (1.6%) to shortened menstrual flow during Hajj. We did not find any literature describing menstrual suppression using tranexamic acid and mefenamic acid. They reduce menstrual bleeding but do not alter the cycles.¹⁵

The methods of menstrual suppression were related to the intended duration of menstrual suppression. Hajj duration may range from 15 days to 50 days depending on the type of travel package taken. Most of the women pilgrims in this study took the “muasasah” package group where the duration of hajj is between 40-55 days. In this study, women who took COCP and intramuscular progesterone intended to achieve total amenorrhea throughout Hajj duration, whereas in the oral progestogen group, only about half (54.5%) intended for total amenorrhea. Half of those on oral progesterone desired only partial suppression and stopped their oral progesterone once they completed their pillar of Hajj. However, since this study is exploratory, the outcomes of these two groups were not compared. The outcomes of both menstrual suppression methods should be explored in future research.

Factors Affecting Menstrual Suppression Practice

This study found that previous usage of contraception was associated with menstrual suppression practice during Hajj. This finding was consistent with the previous study in Nigeria.¹⁷ This could be due to women who had prior experience of using hormonal contraceptives were possibly more confident to use them for menstrual suppression.

Strength And Limitation of the Study

This was the first study in our country and region looking at the prevalence of menstrual suppression practice among female Hajj pilgrims. However, due to the limitation of resources and time, only attendees of pre-Hajj courses conducted in 4 centres in the Federal Territory of Kuala Lumpur were included in the study. Recall bias on the menstrual practice via telephone call are potential confounding factors as well. Furthermore, some pilgrims may have opted for private pre-hajj courses and these groups may be missed during the data collections. Therefore, these findings cannot be generalized to the rest of the Malaysian population.

These study findings are a platform for a future study looking into the outcome of the menstrual suppression practice, to explore the reasons for not opting for menstrual suppression, satisfaction in the intended menstrual suppression duration, and the side effect of the preferred method used for menstrual suppression used during Hajj among this group of women which can provide clinical evidence for its usage and address the gap of knowledge that exists in this area. LTH may also consider including discussion about menstrual suppression options in their pre-Hajj courses to cater to those who may be interested to suppress their menstruation.

CONCLUSION

Nearly one-fifth of female Hajj pilgrims practiced menstrual suppression. COCP and oral progesterone were the preferred methods of contraception. Previous usage of contraception was significantly associated with the success of menstrual suppression. The method chosen corresponds to the desired duration of menstrual

suppression. Despite certain limitations, this study produced important baseline knowledge for future female pilgrims and doctors.

CONFLICT OF INTEREST

None

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DISCLAIMER

This article's findings had been presented as part of the oral presentation on "Prevalence Study Of Menstrual Suppression Among Malaysian Women Performing Hajj/ Pilgrimage: Its Outcome And Factors Associated With Successful Menstrual Suppression" at The 32nd FIMA Council Meeting and FIMA/IIMA Annual Scientific Meeting 2015 in conjunction with the 8th Mukisi National Meeting Makassar, 11-16 August 2015.

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