



Menstrual Suppression Using Oral Contraceptives by Female Hajj Pilgrims

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Abstract

Introduction: The pilgrimage to Ka'bah (God's house in Mecca) is a special opportunity in the life of most Muslims. Female pilgrims try to postpone menstruation during the pilgrimage by taking hormonal medicines. However, women are seen in this disorder. This paper aimed to determine the frequency of menstrual disorders and related factors among female pilgrims of Umrah Mufradah in 2012.

Methods: This study was a descriptive type, the population of which comprised 400 female Iranian pilgrims aged 15-50 years who were selected through random cluster sampling from Umrah caravans. Data was collected with a questionnaire developed by the researchers that contained questions about menstrual disorders. The questionnaire was distributed among participants at their hotels three days prior to their return to Iran.

Results: Among all the participants, 98.7% of them reported taking pills to suppress menstruation. Of this group, 74.7% successfully prevented menstruation, 26% reported spotting, and 11.6% reported menstruation. There was no significant difference between consumption of medicine and factors such as marital status, city, and educational background of the individuals. Participants reported that spotting and menstruation caused them to experience stress and anxiety when performing Umrah rituals.

Conclusion: Experiencing menstrual disorders during pilgrimage can be stressful for pilgrims. To reduce such problems, counseling sessions on menstruation postponement as part of the justification classes before departing for Hajj and compiling an equal and coordinated nationwide protocol seem necessary.

Keywords: Menstrual, Oral contraceptives, Hajj pilgrims

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Introduction

The Hajj ceremony is the most important life event for any Muslim.¹ For the majority of pilgrims, it is a long-desired journey that may happen only once in a lifetime. Annually, millions of Muslims from various countries gather in the holy cities of Mecca and Medina in the Kingdom of Saudi Arabia to perform their religious rituals.²⁻⁴

According to religious instructions, purity or cleanness is a condition for entering Masjed Al'Haram (the respected mosque) or other mosques. Women are not permitted to

enter mosques or say their prayers while menstruating.²

To take the greatest advantage of their pilgrimage, many women of reproductive age try to prevent menstruation during the pilgrimage³ by taking oral hormonal medicines. The first case of taking medicine to postpone menstruation dates back to 1977.³ Today, this method is used to decrease the number of menstruation cycles. Similar utilization of hormonal medicines is common among Jewish females.⁴

Definitely, delaying menstruation by taking hormonal medicines intermittently and for short periods to remove

impediments to religion, is regarded as a special case and has its own side effects and problems.⁵ Usually, women who are willing to use this method of prevention have not taken these medicines before and are more likely to experience more side effects. The emotional effects of contraceptive pills can be worse than their physical effects.⁶ The inefficiency of these medicines in delaying menstruation appears mainly in the form of spotting during consumption and can endanger the main philosophy of consumption, to remove impediments to religion, and cause stress and other problems for the consumers. Some studies have investigated the consumption of these medicines, and spotting while on the medicine has been reported as a main complaint of pilgrims.^{2,7} Some women who use contraceptive pills during their pilgrimage experience side effects. The most important and most commonly occurring side effect of the contraceptive pill is spotting, which can lead to anxiety and depression.

Based on informal reports of menstrual disorders among pilgrims in Mecca, the current study aimed to determine the prevalence of menstrual disorders and related factors in Mufradah pilgrims in 2012.

Methods

This descriptive study considered 400 female Iranian pilgrims aged 15-50 years who did not have an intrauterine device (IUD). The participants were selected through random cluster sampling from Umrah caravans. The size of the population was determined to be 350 people based on similar studies, but for the sake of higher reliability 400 participants were studied. The exclusion criteria included women who were reluctant or unwilling to participate in the study. The instrument used in this study was a two-part questionnaire developed by the researchers and based on pilgrims' complaints and questionnaires from prior studies. The first section contained questions regarding personal characteristics, and the second section involved questions about methods of menstruation prevention, symptoms of menstrual disorders, spotting, and treatment precautions. The questionnaire included 3 open-ended questions about the side effects of the medicine, the emotional effects of the resultant disorder, and the impact the resultant disorder had on the performance of Umrah rituals.

The questionnaire consisted of 23 questions, 5 regarding demographic data, 15 regarding menstruation and medicine consumption for menstrual suppression, and 3 open-answer questions which addressed side effects and problems.

Content validity of the questionnaire was checked through the opinions of 3 gynecologists and 3 faculty members of the Rafsanjan University of Medical Sciences. The reliability of the questionnaire was 0.84. The questionnaire was distributed among the participants at their hotels 3 days before their return to Iran. Random cluster sampling was used to randomly select hotels and the Iranian caravans staying in them. Women from each caravan volunteered to distribute and collect the questionnaires. The collected data was inserted into SPSS version 18 software and analyzed using parametric and non-parametric tests such as the chi-square test.

Results

Four hundred female Umrah pilgrims participated in the study. The average age of the participants was 34.4 ± 1.33 ; 19.2

% of them were single, and 80.8 % were married. The results indicated that 53.2% were housewives, 44.7% had a bachelor's degree or higher, and 2% of them were illiterate.

Results indicated that 98.7% of participants reported taking birth control pills to suppress menstruation, and 74.7% of them reported successfully preventing it. The average number of pills used per day was 1.13 ± 0.45 . The average start time for taking medicine before menstruation was 10.37 ± 9.7 ; 51.5% of participants received consulted regarding the pills, and 19.9% of them had no consultation at all before the pilgrimage. Consultation was received by 42.4% of participants one week, 14.7% two weeks, 6.8% three weeks, and 36.7% more than 21 days prior to departing for Hajj. The average time before departure for counseling was 22.23 ± 23.95 days (Table 1).

Despite taking medicine to postpone menstruation, 26% of the participants reported spotting. Spotting was more frequent in participants aged 25-45 years than participants under the age of 25 years or over 45 years. Statistically, the differences were significant at $P=0.03$ (Table 2). The average start time for spotting was on the eleventh day of the menstrual cycle (11 ± 11.88). Also, 11.6% of the individuals taking medicine

Table 1. Sample Frequency in Terms of Job, Educational Background, Prevention Method, Counseling and the Time of it

Variables	No.	Percent
Job		
Teacher	56	14.2
Housewife	210	53.2
Student	74	18.7
Employee	55	13.9
Total	395	100
Educational background		
Illiterate	8	2
Lower than diploma	76	18.7
Diploma	141	34.6
Bachelor's degree	151	37.1
Higher than a bachelor's degree	31	7.8
Total	407	100
Prevention method		
No prevention	106	25.3
Pill	302	72.1
Injection	5	1.2
Injection and pill	6	1.4
Total	419	100
Counseling		
Doctor	168	51.5
Midwife	60	18.4
Friends	33	10.1
No counseling	65	19.9
Total	326	100
Time of counseling		
One week before departure	75	42.4
One to two weeks before departure	26	14.7
Two to four weeks before departure	16	9.1
One to two months before departure	56	31.6
More than two months	4	2.2
Total	177	100

Table 2. Spotting Frequency by Age Group

Age	Spotting		No Spotting		Total	
	No.	Percent	No.	Percent	Percent	No.
Less than 25	16	18.8	69	81.2	100	85
25-45	61	33	124	67	100	185
More than 45	6	14	37	86	100	43

Table 3. Comparison of Delay in Menstruation and Educational Background

Educational Background	Menstruation Delay		No Menstruation Delay		Total	
	No.	Percent	No.	Percent	No.	Percent
Illiterate	5	62.5	3	27.5	8	100
Lower than diploma	51	67.1	25	32.9	76	100
Diploma	107	75.9	34	24.1	141	100
Bachelor's degree	122	80.8	29	19.2	151	100
Higher than a bachelor's degree	22	70.9	9	29.1	31	100

to postpone menstruation reported menstruation. To obviate spotting, 74.6% had referred to a doctor; of those individuals, 61.6% reported their spotting was obviated and 27.9% reported increasing the dose of the medicine to obviate this problem.

Among the participants, 41% of those who consumed medicine experienced at least one medicinal side effect, mostly sickness and vomiting.

There was no significant difference between menstruation delay and individuals' educational background; however, the rate of medicine consumption was higher among persons holding a college degree (Table 3). There was no significant difference at $P > 0.05$ between menstruation delay and factors such as marital status and the dispatch city in Iran. There was a significant difference between the consumption of medicine and the age category; fewer participants over the age of 45 years took medicine than the others.

Qualitative analysis of the open-ended questions showed that spotting and menstruation were reported as stressful for participants in performing Umrah rituals. Some participants reported menstruation as causing feelings of their visit to the Ka'beh being rejected by God and expressed experiencing great stress and anxiety.

Discussion

Results of the current study indicated that 74.7% of the female pilgrims successfully prevented menstruation during their pilgrimage to the Ka'beh (God's house in Mecca), and most of them reported using contraceptive pills to prevent it. Currently, the long-term use of contraceptive pills to decrease the occurrence of menstruation has been of great interest to researchers and women of reproductive age. Large numbers of women from all over the world prefer to take contraceptive pills to prevent menstruation for many days.^{5,8}

Despite taking pills, 26% of the pilgrims participating in the current study experienced spotting and 11.6% menstruated. The average start time for spotting was on the eleventh day of the menstrual cycle. Spotting is a common side effect of contraceptive pills, even in the common 21-day method of using them.⁹ Most cases of spotting in this study can be attributed to the short interval between starting medication

and spotting. Since contraceptive pills have a low amount of estrogen in them, a low dose of conjugated estrogen is easily used to alleviate the problem of spotting. Furthermore, with the low dose of conjugated estrogen, the user is not disposed to the side effects of the higher hormone dosage.

In a study by Sulak et al on 318 patients, they found that the pills decrease the symptoms of PMS in 13%, hypermenorrhea 19% and headache 35%.¹⁰ Other studies which applied extended and continuous regimens for preventing menstruation reported a high and variable prevalence of spotting and bleeding; however, these unwanted side effects were eliminated after a few cycles. A high prevalence of side effects was reported in women who used contraceptive pills for the first time.

Ghorashi et al reported the occurrence rates of spotting and menstrual bleeding in Hajj pilgrims in 2000 as 13.6% and 2.1%, respectively.¹¹ The low occurrence of these side effects in the study of Ghorashi et al compared with the results of the present study can be attributed to the high dose of the pills taken by participants. In the study of Ghorashi et al, about 20% of the individuals took HD pills from the beginning, and the others took two LD pills simultaneously.

In the present study, more than half of the individuals aged over 45 years had used hormonal medicines to postpone menstruation. An increase in the age of the user increased the side effects of the contraceptive pills.⁸ Moreover, most of the middle-aged women in this study suffered from diseases like diabetes or hypertension, both of which can endanger the consumption of contraceptive pills. Therefore, special training and care for postponing menstruation, such as the use of non-estrogenic pills, should be allocated to this group.

Statistically, there was no significant difference between the start time for taking pills and the occurrence of spotting. Therefore, those women who had a delayed start in taking pills during their menstrual cycle did not report the occurrence of spotting any more than those who started taking the pill on the fifth day of their menstrual cycle. Furthermore, Ghorashi et al found no significant difference between these two variables. It can be concluded that the delay in starting medicine consumption did not create additional problems for the users. This will be helpful for those who tend to decrease the consumption of the pill for different reasons. Therefore,

decreasing the number of pills can help decrease their side effects.⁷

About 20% of the participants in this study who had used menstruation postponement methods had received no counseling on the use of medicine before starting consumption. From those who reported receiving counseling, more than 60% reported receiving counseling a short time (three weeks or less) before the pilgrimage. It should be noted that unadvised use of contraceptive pills among those who are at a high risk can be dangerous or even deadly. Furthermore, the unadvised use of contraceptive pills can lead to inappropriate consumption, the possibility of increased side effects, and a lack of necessary instruction on how to cope with side effects such as spotting. Therefore, it is suggested that counseling be taken into account in justification classes.

It is recommended that justification classes be held duly and more than one month before the pilgrimage to allow women to make better decisions about how to postpone menstruation.

The most common side effect of taking contraceptive pills noted in this study was vomiting, which is a prevalent side effect of contraceptive pills.¹² Because of the short period of consumption and the specificity of the occasion, it is essential to advise pilgrims on possible side effects of contraceptive pills and the necessity of having them during the pilgrimage.¹³ Since the Hajj pilgrimage is an important and sometimes exclusive event in the life of most pilgrims, the experience of menstrual disorders during pilgrimage can be stressful, disappointing, and problematic for them.¹⁴ To reduce such problems, holding counseling sessions on menstruation postponement as a part of the justification classes before departure for Hajj and compiling an equal and coordinated nationwide protocol seem necessary.¹⁵

Conclusion

The side effects of taking contraceptive pills for menstrual suppression and their failures are considerable and cause pilgrims to feel much stress and inconvenience. It is suggested that this traditional approach be replaced with progestin-only pills, such as megestrol.

Authors' Contributions

All authors contributed significantly toward this study.

Conflict of Interest Disclosures

None declared.

Ethical Approval

Not applicable.

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References

1. Al-Ghamdi AS, Kabbash IA. Awareness of healthcare workers

Research Highlights

What Is Already Known?

It is already known the side effects of taking contraceptive pills for menstrual suppression and their failures are considerable and cause pilgrims to feel much stress and inconvenience. This review elaborates on the effects of contraceptive pills on travelers.

What This Study Adds?

The results of the current study suggest that the traditional approach of using contraceptive pills to suppress menstruation should be replaced with the consumption of progestin-only pills, such as megestrol pills. It is essential that pilgrims be advised about the possible side effects of the pills and the necessity of having them during the pilgrimage.

- regarding preventive measures of communicable diseases among Hajj pilgrims at the entry point in Western Saudi Arabia. *Saudi Med J.* 2011;32(11):1161-1167.
- Al-Ghamdi SM, Akbar HO, Qari YA, Fathaldin OA, Al-Rashed RS. Pattern of admission to hospitals during muslim pilgrimage (Hajj). *Saudi Med J.* 2003;24(10):1073-1076.
 - Azarpazhooh MR, Rafi S, Etemadi MM, Khadem N, Fazlinejad A. The relation between short-term oral contraceptive consumption and cerebrovascular, cardiovascular disorders in Iranian women attending Hajj. *Saudi Med J.* 2008;29(7):1024-1027.
 - Bakhsh AR, Sindy AI, Baljoon MJ, Dhafar KO, Gazzaz ZJ, Baig M, et al. Diseases pattern among patients attending Holy Mosque (Haram) Medical Centers during Hajj 1434 (2013). *Saudi Med J.* 2015;36(8):962-966. doi:10.15537/smj.2015.8.12120.
 - Berek JS. *Novak's Text Book of Gynecology.* 13th ed. Baltimore: Williams & Wilkins; 2002:250-261.
 - Burkman RT. Oral contraceptives current status. *Clin Obstet Gynecol.* 2001;44(1):62-72. doi:10.1097/00003081-200103000-00010.
 - Madani TA, Ghabrah TM, Al-Hedaithy MA, et al. Causes of hospitalization of pilgrims in the Hajj season of the Islamic year 1423 (2003). *Ann Saudi Med.* 2006;26(5):346-51.
 - Mansour D, Experiences with Yasmin; the acceptability of a novel oral contraceptive and its effect on well being. *Eur J Contracept Reprod Health Care.* 2002; 7 Suppl 13:35-41.
 - Elachola H, Assiri A, Turkestani AH, et al. Advancing the global health security agenda in light of the 2015 annual Hajj pilgrimage. *Int J Infect Dis.* 2015. doi:10.1016/j.ijid.2015.10.003.
 - Sulak PJ, Kuehl TJ, Ortiz M, Shull BL. Acceptance of altering the standard 21-day/7day oral contraceptive regimen to delay menses and reduce hormone withdrawal symptoms. *Am J Obstet Gynecol.* 2002;186(6):1142-1149.
 - Ghorashi Z, Taleghani F, Shafiee M. Failure and side effects of contraceptive pills used for postponement of menstrual bleeding in Hajj Pilgrims of Kerman (2000). *JSSU.* 2005;12(4):65-70.
 - Riaz SA, Ahmadi M, Mortazavi SM. Predictors of anxiety and depression among women with vaginal bleeding referred to gynecology clinic during hajj 2011. *Iran Red Crescent Med J.* 2014;16(11):e12855. doi:10.5812/ircmj.12855.
 - Masood K, Gazzaz ZJ, Ismail K, Dhafar KO, Kamal A. Pattern of psychiatry morbidity during Hajj period at Al-Noor specialist hospital. *Int J Psychiatry Med.* 2007;37(2):163-172.
 - Mohammed-Durosinlorun A, Raji HO, Hussain NA, Badmus SA, Ijaiya MA. Menstrual suppression among female Nigerian pilgrims during Hajj. *J Fam Plann Reprod Health Care.* 2012;38(4):270-271. doi:10.1136/jfprhc-2012-100401.
 - Tin SS, Wiwanitkit V. Hajj pilgrimage surveillance in pilgrims from African countries. *Trop Med Int Health.* 2015;20(2):E11. doi:10.1111/tmi.12413.