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# SM Jet Lag, Stress, and Behavioural Changes of Daily Living on

*by Zakiya Yasin*

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## Jet Lag, Stress, and Behavioural Changes of Daily Living on Umrah Pilgrims from Indonesia

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### Abstract

**12** Introduction: Umrah is an Islamic pilgrimage to Mecca that can be undertaken at any time of the year the Umrah pilgrims who depart from Indonesia to Saudi Arabia has air travel for 10 hours, this study aims to observe the phenomena umrah pilgrim from Indonesia conducted in Indonesia and Saudi Arabia with a long time of 18 days. Method: This study involved 14 participants who perform umrah pilgrims, by using interview technique and direct observation. Research design used a qualitative study with a phenomenological approach. Results: The result of the study showed that pilgrims experience jet lag, also stressed. Disturbance sleep. and behavioral change of daily living. Although umrah (pilgrims) is a spiritual activity, but the implementation made the pilgrims stressed, long flight up to 10 hours with boarding matter, visa examination, made the pilgrims stressed. Conclusion: Umrah pilgrims who experience stress will affect their physical condition. Where physical conditions will affect other biological conditions. including its ability to worship.

**Keywords:** Jet Lag Syndrome, Umrah pilgrims, Stress.

### Introduction

**7** Umrah is an Islamic pilgrimage to Mecca that can be undertaken at any time of the year, in contrast to the Hajj "pilgrimage", which has specific dates according to the Islamic lunar calendar. Mecca is the holiest city for Muslims, located in the region of Saudi Arabia [1]. The Umrah pilgrims who depart from Indonesia to Saudi Arabia have air travel for 10 hours, this allows the Umrah pilgrims experience jet lag because of different body clocks with hours in place.

Coupled with the problems of arranging a dormitory, visa checks, and communication difficulties, make Umrah pilgrims stressed and then aggravate jetlag. The number of Umrah pilgrims reaches 10 million from 180 different countries [2]. Based on Saudi Arabia's vision 2030 the number of Umrah pilgrims will increase significantly to 30 million by 2030 [3] Jet lag can cause sleep disturbance, and sleep disturbances have been associated with increased risks for major chronic diseases such as metabolic syndrome and cardiovascular disease [4]. The effect of circadian clocks has been founded in controlled laboratory settings, but study of

function and misalignment biological clocks in natural settings has been more challenging. Laboratory research has demonstrated that circadian clocks align physiology and behavior to 24-h environmental cycles [5]. Meanwhile, there is still little research on the health of Umrah pilgrims This research is important considering the large number of pilgrims who experience jet lag so that effective policies and treatments are needed for the health of Umrah pilgrims [2].

### Material and Methods

Research design used a qualitative study with a phenomenological approach which aimed to observe the phenomena umrah pilgrim from Indonesia. who experience jet lag, stress, and behavioral changes This research was conducted in Indonesia and Saudi Arabia for a long time of 18 days. The sample of this study were 14 participants who perform umrah pilgrims, by using interview technique and direct observation. Data collected by in-depth interviews and direct observation. Researchers involved

directly with the pilgrims travel so they could observed and collected valid data effectively. The data was analyzed with a qualitative approach, data transcript was then performed open coding selective coding and axial coding so that the research theme was obtained

**Result**

**Jet lag.** The Republic of Indonesia is the largest archipelagic country in the world located in Southeast Asia, with more than 18,000 islands and a population of 236.7 million. Indonesia has a tropical climate and 80% of the population is Muslim [6]. Indonesia and Saudi Arabia are different countries, with a difference of 4 hours and air travel for 10 hours, this allows the Umrah pilgrims who depart from Indonesia to Saudi Arabia to experience jet lag because of different body clocks with hours in place.

The occurrence of lags will increase along with the increase in the umrah pilgrimage every year. The number of Umrah pilgrims reaches 10 million from 180 different countries [2]. Based on Saudi Arabia's vision 2030 the number of Umrah pilgrims will increase significantly to 30 million by 2030[3]. Meanwhile, there is still little research on the health of Umrah pilgrims.

This research is important considering the large number of pilgrims who experience jet lag so that effective policies and treatments are needed for the health of Umrah pilgrims [2]. This study involved 14 participants, by using interview techniques and direct observation. Researchers involved directly with the pilgrims travel so they could observed and collected valid data effectively. The characteristic of the pilgrims described in the following table.

**Table 1: The demography characteristic of the pilgrims**

Characteristic	N	%
Age		
31-40	4	29
41-50	5	36
51-60	2	14
61>	3	21
Gender		
Male	5	36
Female	9	64
Education		
Master's degree	1	7
Bachelor degree	2	14
Senior High School	8	57
Elementary	3	21
Marital Status		
Married	13	93
Widower	1	7
Job		
Private workers	4	29
Entrepreneur	3	21
Jobless	7	50

**Stress.** Although umrah (pilgrims) is a spiritual activity, but the implementation is that the pilgrims itself is a stressor, start with boarding matter, visa examination, long flight up to 10 hours made the pilgrims stressed. This condition was compounded because many pilgrims couldn't speak Arabic or English, so they have communication difficulties or need help from others. Upon arrival in Saudi Arabia stressor is increasing because the pilgrims hadn't known about the direction of the street, it made the pilgrims afraid to get lost. In hotel stressor is also increasing with elevator utilizing, electronic keys to open the room, bathroom with hot and cool shower, which didn't suit the pilgrim's

origin custom. Meeting with different language foreigners and with the intonation louder than Indonesian language intonation may contribute to the stress level of the pilgrims.

**Change of sleep pattern.** Jet lag has a big impact on the pilgrims' sleep pattern, it is because of the time difference with Indonesia time 4 hours earlier than Saudi time. Pilgrims feel sleepy at isya time (07.30 Saudi time) because in Indonesia time zone 01.00 is at dawn already. Where the pilgrim's body time accustomed to Indonesia time zone, then the pilgrims already waken up at midnight (at 03.00 Saudi Time), because it is



already morning 7 o'clock in Indonesia , so the body couldn't adapted yet. This condition affected the quantity of pilgrim's sleeping time, it made the pilgrims not feeling fresh after waking up. The result of the interview showed that 69% of pilgrims' sleeping time was disturbed, and only 31% of pilgrims' sleeping time was undisturbed.

**Change of diet Pattern.** Changes in eating patterns occur in Umrah pilgrims, the diet of Umrah pilgrims in Saudi Arabia is getting better, this is because the meal schedule has been set by the hotel, the food menu has not changed because the food served is Indonesian food. Only breakfast time changed, Umrah pilgrims immediately had breakfast after morning prayer, the habit of eating breakfast in Indonesia about 3 hours after the morning prayer. Some people complain of indigestion, 3% complain of flatulence, 6% complain of diarrhea but most (81%) do not experience interference

Changes in the pattern of elimination. Almost all Umrah pilgrims experience increased urinary frequency, this may occur because of the temperature difference between Indonesia and Medina, the average temperature of Indonesia is 29° Celsius, while the average temperature of Madinah is 18° Celsius. Cold temperatures make pilgrims not sweat all day long. Increased activity also increases metabolism and may also contribute to increased urine frequency.

In contrast, almost all pilgrims experienced a decrease in the frequency of defecation. This may be due to different habitual defecations, such as the use of toilet seats and the use of toilet sprays in hotels, which most pilgrims are accustomed to using squat toilets. A large number of Umrah pilgrims in the dining room forces pilgrims to eat in a hurry, this may contribute to a decrease in the frequency of defecation.

**Change of bathing habit.** Almost all pilgrims experience changes in bathing habits, the habit of using a dipper to take a shower and then at a hotel not knowing how to use a shower with cold hot water faucets affect psychologically pilgrims, especially elderly pilgrims, the cold temperatures also make pilgrims reluctant to bathe even though they use warm water when getting out of the bathroom it becomes shivering. While the habit of brushing teeth, shampooing is no problem.

**Activities and worship change.** Performing hajj and umrah is one of the five pillars of Islam. The ritual involves many rules and procedures [7]. The activities of pilgrims are changing because the main activities of Umrah pilgrims are worship, in contrast to where they work every day, except those who retire or do not work. Worship activities such as prayer reciting dhikr are performed in the Nabawi mosque for 9 days, the distance of the hotel with the mosque is around 500 meters for the male congregation and 600 meters for the female congregation.

The total time of worship activities is 11 hours per day, with details as follows. Pilgrims start to go to the mosque at 3:00 a.m. for morning prayers and dawn until 7:00 a.m. after the morning prayer returned to the hotel for breakfast and rest, the pilgrims returned to the mosque at 11.00 for the Dhuhur prayer until 13:30. After the Dhuhur prayer, go back to the hotel for lunch and rest.

The congregation returns to the mosque at 2:30 a.m. for Ashar prayer until 16:00. After the Ashar prayer returns to the hotel to rest. The congregation returns to the mosque at 5:00 p.m. to pray at sunset and evening until 8:00 p.m. after the prayer the evening return to the hotel for dinner and rest. Other activities carried out by pilgrims besides worship are visiting several places in Medina. And running around the hotel. This activity was carried out in between the spare times.

**Sexual reproductive.** Specifically, women need to prepare themselves for worship, women who menstruate cannot carry out worship in the Nabawi mosque, so it is recommended for female pilgrims to use hormonal contraception to regulate menstruation, but 1 pilgrims menstruate so that they cannot carry out worship in a Nabawi mosque, sexual activity is not carried out in Saudi Arabia because men's and women's rooms are separate, except for roommates.

**Discussion**

Although umrah (pilgrims) is a spiritual activity, but the implementation made the pilgrims stressed, long flight up to 10 hours with boarding matter, visa examination, made the pilgrims stressed.

Umrah pilgrims who experience stress will affect their physical condition. Where physical conditions will affect other biological conditions. including its ability to worship. To improve the activities and worship of Umrah pilgrims, it is necessary to get good guidance to improve their conditions. Coaching is a suitable method to increase Muslim knowledge, attitude, and ability to practice spiritual activity [8]. Coaching was expected to change negative perceptions into positive perceptions and Positive stress perception will affect the stress response. so that pilgrims can deal with the stress.

Dhikr therapy also increases the motivation and strengthening awareness and spirituality belief in Allah make positive stress perception [9]. Positive stress perception will affect the stress response through the HPA axis to suppress the secretion of CRH, ACTH, and cortisol. Mind body approach also promising has a strong relationship with spirituality [10]. Health promotion model-based health promotion seeks may also suitable to improve the perceptions of the benefits, perceived barriers, self-efficacy, and attitudes toward [11]. Preparation before the Umrah pilgrims are important, assessment of coping strategies, adversity quotient and resilience of the Umrah pilgrims needs to be studied. There is a correlation between recovery and self-efficacy, coping strategy, adversity quotient and resilience [12]. Umrah pilgrims experience disturbed sleep patterns because there is a time difference between Indonesia, where Indonesia's time is 4 hours faster than the time in Saudi Arabia. make pilgrims feel sleepy faster and wake up earlier, which affected the quality and quantity of sleep.

Some evidence suggests that insufficient sleep affects basal levels of immune and inflammatory mediators, as well as the inflammatory reactivity to stressors. Some studies have also begun to explore the bidirectionality of the sleep-immune relationship through clinical sleep intervention [13]. Umrah pilgrims need to be given interventions to overcome these problems. Some non-pharmacological interventions have been shown to improve the quality and quantity of sleep. one of them is hypnosis. Hypnosis for sleep problems is a promising treatment that merits further investigation. More than half the study of the included studies reported

hypnosis benefit on sleep outcomes [14], similar to hypnotic *sirep* intervention also promising treatment for sleep problems and can even increase the modulator's immunity.

*Sirep*, is one of the traditional interventions of people in East Java Indonesia, especially Tengger tribe using spells to meet the needs of human sleep, *sirep* may improve immune modulators in the elderly [15]. Religious relaxation intervention also promising treatment. The research showed that the religious relaxation therapy is proven to have a more improved good sleep quality [16].

Music can raise the endorphin and serotonin levels and reduce the catecholamine levels, so it can change the respiratory rate and oxygen saturation, improve quality of sleep and reduce fatigue [17]. There are only a few pilgrims who experience indigestion, the food menu has not changed because the hotel in Saudi Arabian served Indonesian food. The cooperation and collaboration between the organizers of the pilgrimage of Umrah with the government of Saudi Arabia, especially the hotel, has resulted in an agreement to present a menu of food following the habits of origin, which has benefited the pilgrims.

So that it can reduce digestive disorders. As know that a bad diet will affect health. Even poor diets are a leading cause of disease burden worldwide. robust government leadership, sufficiency funding, clear targets, and timelines, minimize conflict of interest, good monitoring, and evaluation, and a plan for responsive regulation in the event of missed milestones will be required if the new Healthy Food Partnership is to achieve its urgent public health goals [18].

Almost all pilgrims experience changes in bathing habits especially elderly pilgrims, almost pilgrims not knowing how to use a shower with cold hot water faucets affect psychologically pilgrims, umrah pilgrims may experience cultural shock. Because of the difference between local and origin cultural. Multicultural domestic and international relations create cultural shock for both immigrant and resident groups. The nature of cultural shock experiences suggests that resolution be addressed through cognitive orientation and behavioral adjustment involving recognition of cultural shock characteristics and implementation of strategies for its resolution [19] to overcome



the problem of cultural shock, it is necessary to have positive cultural sensitivity and willingness to adjust. counseling needs to be given to have a positive perception of culture.

So it has the willingness to adjust. there is a significant association between positive cultural sensitivity and willingness to adjust [20]. Umrah pilgrims experience activity changing especially worship. because the main activities of Umrah pilgrims are worship, in contrast to where they work every day, Umrah worship is a physical worship, extraordinary Umrah worship activities require a good physical condition of the pilgrims. Pilgrims must walk up to tens of kilometers.

And this affects the pilgrims. Especially the elderly. But umrah pilgrims have motivation and effect on motor activity events in the elderly. Umrah pilgrims have intrinsic religious motivation. a pilgrimage can push the elderly to do physical activities of some importance that are at the same time related to some sort of religious motivation.

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The pilgrim's walking in itself, as well as the achievement of its goal, helps people to reconsider their quality of life and active behavior. Elderly people also experience their independence, which perhaps was considered to be lost, with a pilgrimage, giving a new meaning to their aging. In light of these activities, old age becomes a period not just of physical and mental decay, but of self-discovery. It becomes an age that allows one to do something that one has not done during one's youth, pilgrimages give people time to discover themselves-they have the chance to work on their personality and social identity. This contributes to the understanding of their health and of their quality of life in a deeper sense [21].

## Conclusion

Although umrah (pilgrims) is a spiritual activity, but the implementation is that the pilgrims it-self is a stressor, Umrah pilgrims who experience stress will affect their physical condition. Where physical conditions will affect other biological conditions. including its ability to worship.

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