

Original Article

Effect of the Holy Month of Ramadan on Coping Strategies

S. Akuchekian MD*, A. Ebrahimi MS**, S. Alvandian MD***

Abstract

Background: Stress is one of the risk factors for the development of so many physical and especially psychological disorders. Now, the impression is focused on coping strategies versus previous emphasis on nature and severity of stress. The present study was performed to evaluate if fasting, not only as a religious behavior but also as a coping strategy can influence the way of coping with stress in humans.

Methods: In a pre-test / post-test survey, 100 medical students were evaluated for stress coping strategies before and after the holy month of Ramadan using CS-R scale.

Results: The results revealed that the use of ineffective coping strategies was significantly decreased after the holy month with no alterations in other strategies. In details, uses of superstitiousness, wishful thinking and self-medication coping strategies were statistically lower after Ramadan compared to values before it ($P < 0.05$).

Conclusion: The present study showed that Ramadan fasting (a religious behavior or belief) as a coping strategy has beneficial effect on the way of coping with stress in humans.

Keywords: Stress, Coping Strategies, Religion, Ramadan, Medical Student

Human being is exposed to so many stresses. The stress in turn is a major risk factor for the development of physical and psychological complications¹. Now the impression is focused on coping strategies versus previous emphasis on nature and severity of stress. This orientation leads to the idea that the quality of behavior is not solely due to the stress itself and that it largely depends on the way of evaluating and coping with stress². The skill of coping with stress has a widespread concept with multiple cognitive and behavioral aspects. It is generally defined as efforts in order to improve the adjustment with environment or efforts to inhibit the poor consequences of stressful conditions. In other words, coping denotes the stable alteration and cognitive behavioral efforts in order to control external and internal inclinations of high pressure¹.

Specialists in behavioral sciences recognized different ways through which people cope with

stress and explained them as problem focused or emotional focused behavioral and cognitive aspects. Problem focused coping is directed to the source of stress and emotional oriented coping includes some activities in order to control and reduce undesirable feelings following stress.

One of the effective methods of coping with stress is religious coping, which is a behavioral – cognitive method to overcome tension conditions, physical and psychological discomfort and a way to facilitate dealing with internal and external tension³.

It is believed that the effect of religious coping is induced in three ways. Religious factors as a part of coping process, effect of religion on establishment of coping strategies and religious factors as components of a coping process. Each way has some psychological strategies by which it will introduce its inhibitory effect on negative consequences of stress⁴.

*Assistant professor, Department of Psychiatry, Isfahan University of Medical Sciences, Isfahan, Iran.

**Behavioral Sciences Research Center, Isfahan University of Medical Sciences, Isfahan, Iran.

***Behavioral Sciences Research Center, Isfahan University of Medical Sciences, Isfahan, Iran.

Correspondence to: Dr. Shahla Akuchekian, Behavioral Sciences Research Center, Isfahan University of Medical Sciences, Isfahan, Iran.

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A study on self-sacrificed (disabled) soldiers which was performed to evaluate their coping strategies revealed that religious coping stands in a high level for them and helps to adjust their situation compared to other soldiers⁵.

One of the most important fulfillments among Moslems is fasting in the holy month of Ramadan. Ramadan is distinguished among lunar months. Moslems believe that fasting in Ramadan as a religious task results in blessing for humans⁶. According to religious recommendations, fasting in Ramadan is abstinence from eating and drinking and also self-mastery and self-actualization. In this month, there is much emphasis on correction of interpersonal relations and acceptance and moderation with others, to pay more attention to good acts and to care about the economic structure of life and society⁶. It is also recommended to spend more time for self-awareness and recognition of God and relation with him. The prayer for development of personality and contemplation is of much importance⁶. With respect to the emotional value and behavioral-cognitive dimensions of Ramadan, it can largely influence the psychological status of Moslems. Different studies regarding the effect of fasting on physical and psychological status have been performed in Iran. A pre-test/post -test study was conducted in Kerman to evaluate the effect of Ramadan on psychological status of medical students. The results revealed that the mean of all parameters on SCL 90 - R scale decreased during Ramadan⁷. Another research showed definite positive effect of fasting in Ramadan on the immune system⁸.

A review on previous studies showed the importance of stress coping strategies regarding the fact that the way of coping with stress is largely dependent on social background and beliefs of every subject.

Among the factors which affect coping strategies, religious and contemplative backgrounds play important roles⁴. As Moslems pay more attention to their religious tasks in the holy month of Ramadan, it is believed that their physical and psychological status can be influenced positively in this month. Some studies support this hypothesis but it seems that the special effect of fasting on stress coping strategies has not been studied yet⁷. The present

study was performed to evaluate the influence of fasting in Ramadan on stress coping strategies.

Materials and Methods

In a pre-test / post-test survey 100 medical students were evaluated for stress coping strategies before and after Ramadan. The inclusion criteria were absence of medical conditions and mood disorders. The subjects were selected by simple random sampling method and assessed for stress coping strategies using revised coping strategies (CS-R) scale.

CS-R scale considers no positional coping style of individuals. It includes 72 questions in which 18 coping styles are evaluated as problem focused, emotional focused, less useful and ineffective subjects. Each coping style includes 4 items with an answer of binomial format. The mean of numbers for each scale was calculated separately. The reliability and validity of CS-R have been assessed in multiple studies and a research in Iran estimated the reliability of different parameters of CS-R to be 63 - 95%⁵.

Before completing the questionnaire, subjects were instructed by members of the research team. For data collection two weeks before Ramadan, medical students were asked to complete the questionnaires carefully. One week after Ramadan, the same students did the job for the second time. Then, data were collected and analyzed using descriptive-analytic methods such as paired t-test using SPSS 9.0.

Results

The sample size included 100 medical students with no preferences based on demographic characteristics such as a sex or age but all the subjects were Moslem in an age range of 24-28 years.

The results revealed that the mean values of superstitiousness, wishful thinking and self-medication coping strategies were significantly different before and after Ramadan ($P=0.013$, $P=0.005$, $P=0.000$ respectively; table 1). In other words, the use of ineffective coping strategies was significantly reduced after Ramadan ($P=0.05$), but no statistical differences were observed in using other coping strategies (table 1).

Table 1. Scores of coping strategies (CS-R) before and after Ramadan. Data are mean \pm SD.

Coping Strategies		Before	After
Problem focused strategy	Active coping	2.62 \pm 1.01	2.52 \pm 1.04
	Plan-full problem solving	3.04 \pm 1.1	3.28 \pm 0.9
	Prevention from trouble activity	2.80 \pm 1.3	2.66 \pm 1.3
	Self-controlling	2.35 \pm 1.2	2.20 \pm 1.2
	Seeking social support	3.39 \pm 1	3.57 \pm 0.9
	Total	2.84 \pm 0.76	2.85 \pm 0.67
Emotion focused strategy	Seeking emotional support	2.40 \pm 1.5	2.18 \pm 1.6
	Positive reinterpretation	3.21 \pm 1.1	3.39 \pm 1
	Acceptance	2.05 \pm 1.4	2.05 \pm 1.3
	Denial	1.04 \pm 1.3	0.826 \pm 1.1
	Turning to religion	2.30 \pm 1.2	2.28 \pm 1.4
	Total	2.20 \pm 0.66	2.14 \pm 0.65
Less useful strategy	Affective focus and impression	2.50 \pm 1.3	2.32 \pm 1.3
	Mental uninvolved	1.60 \pm 1.4	1.38 \pm 1.4
	Behavioral uninvolved	0.71 \pm 1.2	0.63 \pm 1.1
	Total	1.60 \pm 0.93	1.44 \pm 0.84
Ineffective strategy	Impulsiveness	2 \pm 1.4	1.85 \pm 1.3
	Negative thinking	1.66 \pm 1.2	1.42 \pm 1.2
	Superstitiousness*	0.95 \pm 1.2	0.52 \pm 0.8
	Wishful thinking*	2.45 \pm 1.4	2.12 \pm 2.4
	Self-medication*	0.77 \pm 1.3	0.26 \pm 0.6
	Total*	1.56 \pm 0.89	1.23 \pm 0.72

*P < 0.05

Discussion

The result of this study shows that uses of ineffective strategies, such as superstitiousness, wishful thinking and self-medication by Moslem students, decreased significantly after Ramadan fasting. These results could be obtained in this month by adherence to religious recommendations. People, who go on fasting, not only avoid eating

and drinking but also exercise self – mastery and self – actualization in Ramadan.

In this month it is recommended to pay more attention to good order, discipline and punctuality, respect familial and interpersonal relationships and economical structure of personal and social life^{6,8-13}. These findings correspond to the Pargament model. This model shows that the mechanism of religious

coping is explained through interpersonal, social, avoidance, contemplation, cognitive and behavioral dimensions⁴. In psychological dimension, ineffective coping strategies are explained as inefficient methods for changing the source of pressure or improving in the feelings caused by a stressful condition, and may worsen the psychological condition of the subjects¹³. Another ineffective coping strategy such as wishful thinking is a kind of denial and maladaptive strategy. In Ramadan, there is much emphasis on correcting the interpersonal and social relations. When the uses of ineffective coping strategies are limited, it results in realism and appropriate reaction to stress.

Another significant finding was the significant reduction in the usage of self-medication coping strategy during Ramadan. Using self-medication as an ineffective method can worsen the stressful condition. This result could be due to the emphasis on inner control (taghva) and abstinence in religion.

From the stand point of biology, it is believed that cortisol rises as an adaptation phenomenon to control emaciation in fasting people¹⁴. On the other hand cortisol is a stress hormone which provides physical and psychological adaptation with stress¹⁵. Endogenous opioids such as beta-endorphin have an inhibitory role on sympathetic nervous system. Plasma level of beta-endorphin rises in fasting people¹⁶. High level of endogenous opioids could decrease the desire and crave for substance. It is suggested to educate the public on religious recommended behaviors so that they would pay more attention to other aspects of fasting such as behavioral, emotional, contemplative, cognitive and social dimensions and try to make behavioral, cognitive and internal alterations. As a result there will be more improvement in stress coping strategies.

References

1. Lazaruse RS, Folkman S. Stress, appraisal and coping. New York: Springer; 1984.
2. Thoits PA. Social support as coping assistance. *J Consult Clin Psychol* 1986 Aug; 54: 416-23.
3. Koenig HG, George LK, Siegler IC. The use of religion and other emotion-regulating coping strategies among older adults. *Gerontologist* 1988; 28: 303-10.
4. Paragament, Kenneth I. God help me: Religious coping effort as predictors of the outcomes to significant negative life events. *American journal of community psychology* 1990; 18: 793-824.
5. Ebrahimi A, Bolhari J, Zolfaghari F. [The difference in stress coping strategies among self-sacrifice soldiers]. *Journal of Andeesheh Va Raftar*, 2002; 8: 40-48.
6. Imam Sajjad, Sahifeh Sajjadiyeh, prayer 44. payame Azadi Co, 1999.
7. Soltani A, Pourgoudarzi Sh. [The effect of fasting on psychological health]. *Iranian journal of Endocrinology and Metabolism* 2001; (Suppl Autumn): 34 – 39. The article in Persian.
8. Masood A. Fasting and immune response. *Proceedings of the first mental health and Ramadan symposium*; 2000 Dec; Kerman University of Medical Science.
9. Holy Qoran, surah of Baghareh, verse 196.
10. Holy Qoran, surah of Nesa, verse 92.
11. Holy Qoran, surah of Maedeh, verse 89.
12. Holy Qoran, surah of Baghareh, verse 84.
13. Carver CS, Scheier MF, Weintraub JK. Assessing coping strategies: a theoretically based approach. *J Pers Soc Psychol*. 1989; 56: 267-83.
14. Tahmasebi S, Moshtaghy H, Bahreini M. [Ramadan and cortisol-circadian rhythm]. *Iranian journal of enocrinology and metabolism* 2001; (Supp Autumn): 15. The article in Persian
15. Kaplan H, Sadock BJ. *Synopsis of psychiatry*. 9th ed. Philadelphia: William and Wilkins; 2003.
16. Zafary F, Bakhtiarian A. [Ramadan fasting and role of bethaendorphin]. *Iranian journal of enocrinology and metabolism* 2001; (Supp Autumn): 47. Article in Persian