



Effects of Ramadan Fasting on the Resilience and Psychological Hardiness of Students

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ARTICLE INFO

Article type:
Research Paper

Article History:
Received: 10 Sep 2020
Accepted: 05 Dec 2020
Published: 04 Sep 2021

Keywords:
Ramadan fasting
Resilience
Psychological hardiness

ABSTRACT

Introduction: Psychological hardiness and resilience are new psychological factors that have attracted the attention of psychologists in various fields. These factors are speculated to moderate stressors and their adverse effects on life. The present study aimed to investigate the effects of Ramadan fasting on the resilience and psychological hardiness of students.

Methods: This study was conducted on 300 students of the Islamic Azad University, Khoy Branch in Khoy, Iran in 2019. The sample population included 150 female and 150 male students who were selected via convenience sampling. One week before the holy month of Ramadan (pretest), data were collected using Connor-Davidson resilience questionnaire and Ahvaz psychological hardiness questionnaire, and posttest was performed one week after Ramadan. Data analysis was performed using one-way analysis of covariance.

Results: Significant differences were observed in the posttest scores of resilience and psychological hardiness. The effect size of fasting on the posttest scores of resilience and psychological hardiness was 0.73 and 0.78, respectively ($P=0.001$).

Conclusion: Practicing religious beliefs largely influences psychological issues and enhances mental health. The individuals who are more inclined to spirituality are less prone to mental disorders and abnormalities. According to the results, religious rituals (especially Ramadan fasting) could improve resilience and psychological hardiness.

► Please cite this paper as:

Nasiri M. Effects of Ramadan Fasting on the Resilience and Psychological Hardiness of Students. *J Nutr Fast Health*. 2021; 9(3): 207-211. DOI: 10.22038/jnfh.2020.51865.1296.

Introduction

In the holy month of Ramadan, Muslims fast and abstain from immoral actions and attempt for soul purification. As the most important religious month in the Islamic calendar, Ramadan is associated with special features, customs, traditions, and duties. A large collection of religious rituals are performed during Ramadan, which are considered to be the longest in terms of time and the most extensive rituals in Islam.

Ramadan fasting necessitates extensive changes in individual and social life, the most important of which are altered dietary habits, resting time, sleep patterns, and leisure time, as well as the changes in work hours, commuting, business, and social interactions. According to the literature, Ramadan fasting has numerous health benefits. In the Islamic viewpoint, fasting is a spiritual practice and an effort to promote mental and physical health (1).

In the past two decades, the use of religion in psychotherapy has attracted the attention of

researchers. Religious studies in psychotherapy across the world are considered fundamental, and a growing number of scholars are inclined toward these matters in many countries. Religion could be effectively applied to promote social support, adaptation, and compliance in matters of health and wellness (2).

Psychological hardiness and resilience are new psychological factors, which have attracted the attention of psychologists in various fields. These factors are speculated to moderate stressors and their adverse effects on life. Humans differ in terms of inner strength, flexibility, and tolerance for hardship (1).

Resilience is defined as the process, ability or consequence of successful adaptation to a threatening situation. In other words, positive adaptation in response to adverse life conditions and self-healing with positive emotional, cognitive, and cognitive consequences form the concept of resilience (3-6). Resilience also refers to the ability of an individual to establish psychological and biological balance in perilous

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conditions and foster successful adaptation, which is manifested in the face of stress and debilitating power. The best definition of resilience is successful adaptation to adverse conditions (7-9).

The term 'hardiness' was first used by Kubasa to refer to a set of personality traits that acted as a protective shield in the face of stressful life events. Accordingly, the individuals with this trait are those who can effectively cope with the challenges and pressures of life (10). In addition, Kubasa (1983) defines psychological toughness as a set of beliefs about oneself and the world in terms of the three components of commitment, control, and struggle. This concept is also a single structure that is related to the integrated and coordinated action of these components originating together (11).

According to the literature, stubbornness is positively correlated with physical and mental health and, as a source of internal resistance, reduces the adverse effects of stress and prevents physical and mental disorders (10-14). Resilience could act as a shield against disaster and the debilitating effects of exposure to risk factors. A resilient individual processes an unfortunate situation in a more positive manner and considers themselves capable of coping with the events (15).

The studies regarding human resilience are particularly focused on the recognition of the individual differences in relation to adverse experiences (16). For instance, Reef and Singer believe that resilient individuals are generally able to maintain their mental and physical health and recover easily from stressful life events (17). Therefore, it could be concluded that resilience improves and promotes psychological growth in negative situations. Quoting Kubasa et al., Funk and Houston have stated that toughness is a single structure that encompasses cognitive, emotional, and practical components. Toughness also plays a pivotal role in maintaining the survival and continuity of individual generation and is essential to being productive and achieving growth and excellence (18).

Psychological stubbornness acts as a shield against stress in various life situations (19, 20) and reduces the risk of stress-related physical illness, mental disorders, and behavioral and functional impairments (15). Furthermore, stubbornness could significantly predict the

psychological wellbeing and success of individuals in occupational choices (21, 22).

Given the effects of religious rites on mental health and the importance of Ramadan to Muslims and Iranians, the present study aimed to investigate the effects of Ramadan fasting on a new population and determine whether Ramadan fasting could be effective in the improvement of resilience and psychological hardiness in students.

Materials and Methods

This study was conducted on the students of the Islamic Azad University of Khoy Branch, Iran. In total, 300 students (150 males and 150 females) were selected as the sample population using Morgan's table. The participants completed three questionnaires in the pretest stage one week before Ramadan in 2019. Notably, six students were excluded from the study. After 45 days and one week after Ramadan, 294 students had completed the questionnaires at the posttest stage. Informed consent was obtained from the students for enrollment in the study.

Research Tools

Resilience Questionnaire (Connor and Davidson, 2003)

This tool has 25 items that are scored based on a six-point Likert scale (Completely Incorrect=0, Always Correct=5). The score range of the scale is 0-100, and the minimum and maximum scores are 25 and 125, respectively; the higher scores indicate more resilience in the subject. The instrument is divided into five dimensions, including the perception of individual competence, trust in individual instincts/negative emotion tolerance, positive acceptance of change and safe relationships, control, and spiritual effects. Connor and Davidson have reported the Cronbach's alpha coefficient of 0.89 for the resilience scale. In addition, the reliability coefficient obtained from the retest method with a four-week interval in the present study was estimated at 0.87. The scale has been standardized for the Iranian population, and its reliability coefficient has been estimated at the Cronbach's alpha of 0.89.

Ahvaz Hardiness Questionnaire

This instrument has 27 items, and each item has four options of never, rarely, sometimes, and most of the time, which are scored within the range of 1-4, respectively. Notably, phrases six,

seven, 10, 13, 17, and 21 in this instrument have a negative factor load and are scored in a reverse manner. The score range of this tool is 0-81, with the higher scores indicating high psychological toughness. The reliability coefficients of the questionnaire have been determined by retest at the Cronbach's alpha of 0.84 and 0.76.

Researcher-made Questionnaire

This questionnaire consists of two sections; the first section covers demographic characteristics such as age, gender, and education level, and the second section has one question regarding the amount of the religious duties performed by the respondent during Ramadan. This question is answered by two phrases (I fasted on all/most days of Ramadan; group I, I did not fast at all during Ramadan; group II). In the present study, this scale was completed by the subjects at the posttest and after the completion of the

resilience and psychological hardiness instruments.

The subjects completed the resilience and psychological hardiness questionnaires one week before and one week after Ramadan. Data analysis was performed using one-way analysis of covariance (ANCOVA).

Results

The mean age of the male and female participants was 22.88 and 21.71 years, respectively. In order to investigate the effect size of Ramadan fasting on resilience and psychological hardiness, the subjects completed two questionnaires one week before (pretest) and one week after (posttest) Ramadan. The results of ANCOVA indicated significant differences between the pretest and posttest scores of the resilience and psychological hardiness of the subjects ($P=0.05$).

Table 1. Mean and standard deviation of two variables in pre-test and post-test of groups 1 and 2

Variable	Stage			
	Pre-test		Post-test	
	Group 1 M±SD	Group 2 M±SD	Group 1 M±SD	Group 2 M±SD
Competence/ Personal strength	19.42±2.75	20.21±2.94	33.67±3.65	20.52±2.71
Trust in personal instincts/ Tolerating negative emotions	18.27±2.87	19.54±2.94	29.76±3.71	20.21±3.10
Accepting positive emotions/ Safe emotions	9.74±1.46	9.53±1.38	15.65±2.07	9.44±1.19
Inhibition	6.48±0.92	6.88±0.81	11.47±1.39	6.75±0.76
Spirituality	4.35±0.83	4.52±0.73	7.83±1.32	4.61±0.95
Resilience	58.26±7.15	60.68±7.62	98.38±8.84	61.53±7.15
Psychological Hardiness	52.68±6.74	53.56±6.43	65.83±7.61	53.89±6.45

Table 2. Results of post-test (ANCOVA) of groups

Source of change	Sum of Squares (SS)	Mean of Squares (MS)	Fisher's F-test (1,291)	P-value	Partial π^2 (PES)
Resilience	64.39	64.39	17.53	0.001	0.46
Group	357.48	357.48	193.61	0.001	0.73
Error	52.74	0.42			
Psychological Hardiness	147.28	147.28	24.38	0.001	0.51
Group	628.57	628.57	241.82	0.001	0.78
Error	118.53	0.84			

(* $P=0.05$)

The posttest results of ANCOVA regarding the scores of resilience and psychological hardiness showed that the posttest scores significantly differed between the groups. In addition, the results of posttest ANCOVA regarding resilience indicated the effect size of 0.73 ($\pi^2=0.73$; $P=0.001$); in other words, 73% of the difference in the posttest scores of resilience could be attributed to the effect of fasting. As for

psychological hardiness, the obtained results showed the effect size of 0.78 ($\pi^2=0.78$; $P=0.001$); similarly, 78% of the difference in the psychological hardiness posttest scores was attributed to the effect of fasting.

Discussion

Our findings indicated that the total scores of resilience and psychological hardiness were higher in the fasting group compared to the non-fasting group. Several studies have confirmed

that religious rites could act as a functional resource through creating a support system for individuals (23); some of these studies have been performed by Fajin and Pragment (24), Jamshidi Solklo (25), Garmzi and Mastan (3), Rabiee Khojin et al. (26), Karimi (27), and Khazaei et al. (28).

To date, several studies have evaluated the correlation of resilience and psychological hardiness with religiosity, such as the studies by Dehghani et al. (29), Hamid et al. (30), and Yasemi Nejad et al. (31). Our findings in this regard are consistent with the previous studies. Imanifar et al. argues that religion is a source of support for individuals in the face of adversity through prayer, trust, and recourse to God (32). Stubborn individuals hope for successful and efficient coping with tensions despite adverse events, while they are also able to find meaning in disturbing experiences and believe in their role as a valuable and important person. A strong personality (commitment, restraint, and struggle) requires mental health, and those with mental imbalance experience despair and depression in the face of negative life situations. Therefore, it could be inferred that the variables of stubbornness and hope are complementary (33); unless man is hopeful, he cannot create positive or negative life situations that require adaptation. He merely considers negative events as a threat to his security and comfort, exhausts his ability to endure vague and uncomfortable situations in life, and disrupts the normal routine of life. An individual with a hopeful and tenacious personality believes that experiences and events could be predicted and controlled, and flexibility helps them adapt and evaluate even the most uncoordinated events (32).

Religious activities directly and indirectly predict hardiness and resilience (34). Performing religious duties could explain resilience and stubbornness without intermediaries, which may be due to the fact that religion encompasses various cognitive, value-based, and behavioral elements to create resilience and resilience (34). These cognitive patterns mainly serve as a supportive factor, as well as an organizer in the face of crisis.

All the major religions of the world offer tasks to allow the survivors of adversity to adapt and create meaning for hardships and enrich their belief system and values (35). In addition, many spiritual-religious duties and behaviors (e.g.,

fasting) intend to prepare humans for voluntarily dealing with hardships and difficulties, so that they could basically view these challenges as tests sent from God (36).

Conclusion

According to the results, practicing religious beliefs plays a key role in relieving psychological issues and improving mental health. Religious rituals (especially Ramadan fasting) are associated with enhanced resilience and psychological hardiness.

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