The status of resilience and health-promoting lifestyle in the staff of Shahid Yahyanejad Hospital in Babol, northern Iran

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Article Info	**ABSTRACT**
Article type: Research Article **Received: 1 November 2021** **Revised: 1 December 2021** **Accepted: 25 December 2021**	**Introduction:** Awareness of resilience and its relationship with a healthy lifestyle has a significant impact on improving working conditions, personal life, and psychological issues of people. The present study was conducted to investigate the status of resilience and health-promoting lifestyle, as well as the relationship between them, in the staff of Shahid Yahyanejad Hospital in Babol, northern Iran. **Materials and Methods:** The present cross-sectional study was performed during March-June 2021. Questionnaires related to resilience and health-promoting lifestyle were completed by individuals. The range of total resilience and health-promoting lifestyle scores were 0-100 and 52-208, respectively. Higher scores indicate better status of individuals. Data underwent the descriptive and Pearson correlation coefficient analyses. **Results:** Finally, a total of 207 people were included in the study, of whom 104 (50.2%) were male and 103 (49.8%) were female. The mean scores of resilience and health-promoting lifestyle among the staff were 62.75 and 131.69, respectively. There was a significant direct correlation between resilience and health-promoting lifestyle (correlation coefficient = 0.555, p<0.001). There were also significant direct correlations between health-promoting lifestyle and different dimensions of resilience. **Conclusion:** Based on the results of this study, the total mean scores of resilience and lifestyle-promoting health were moderate. There was also a direct correlation between resilience and health-promoting lifestyle. It is suggested to teach the resilience skills to the staff and propel them to lifestyles and behaviors that improve their health and raise their tolerance threshold in facing the problems. **Keywords:** Resilience, lifestyle-promoting health, hospital

Introduction

Health promotion means empowering people to identify the effective factors of individual/social health and make the right decision when choosing health behaviors and consequently observing the correct principles of life. The most fundamental factors that form the principles of life for raising community

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health levels include good nutrition, physical activity, self-care, spiritual health, social cooperation, and stress management (1, 2). Today, due to lifestyle changes and mechanization, non-communicable diseases, especially cardiovascular problems, cancers, and accidents, are on the rise (3).

The statement of the World Health Organization (WHO) during the first global conference on Healthy Lifestyles in Moscow estimated that the global mortality rate due to unhealthy lifestyles would reach 75% by 2030 (4). One of the main goals of the WHO is to increase healthy lifestyles in humans and to improve unhealthy lifestyles, such as inappropriate physical activity, poor nutrition, and substance abuse (5). As a result, it is necessary to adopt a serious approach toward behavioral attitudes and risk factors along with clinical trials in healthcare systems. On the other hand, the balancing or protective role of resilience in the physical diseases has been extensively surveyed during the last three decades (6). Resilience is the capacity of individuals to adapt and recover from the stresses and difficulties of life. Based on a lot of evidence, there is a positive relationship between resilience and physical and mental health (7). In other words, as a source of internal resistance, this personality trait reduces the adverse effects of stress and prevents the manifestation of mental and physical disorders. It seems that through the principles of event evaluation and applying the principles when facing these events, resilience triggers a protective mechanism in the physical and mental structure of a person (8).

Awareness of the level of resilience and its relationship with a healthy lifestyle can have a significant impact on improving working conditions, personal life, and mental health issues. Healthcare workers are among the groups who are exposed to a lot of stress during their working hours. The present study was conducted to investigate the status of resilience and health-promoting lifestyle and the relationship between them in the staff of Shahid Yahyanejad Hospital in Babol, northern Iran.

Materials and methods

The present cross-sectional study was performed on the staff of Shahid Yahyanejad Hospital during March-June 2021. The aims of the study were initially explained to subjects, and consent was then obtained from all of them to enter the study. Questionnaires related to resilience and health-promoting lifestyle were then completed by participants. Inclusion criteria included being employed as hospital staff for at least one year, no psychiatric problems and also no exposure to stressful events such as divorce and death of loved ones in the past six months. Exclusion criteria included unwillingness to participate in the study, or incomplete questionnaire.

Regarding the resilience questionnaire, it should be said that this questionnaire was designed by Connor and Davidson (9) in 2003 and has 25 questions with a Likert-type scale of five options from zero to 4; completely untrue (0), somewhat untrue (1), neutral (2), somewhat true (3) and completely true (4). This questionnaire consists of five dimensions: 1) Personal competence with a maximum score of 36 and a minimum score of zero. 2) Personal strength; the maximum score of this scale is 32 and the minimum score is zero. 3) Trust in personal instinct; the maximum score of this scale is 16 and the minimum score is zero. 4) Acceptance of negative emotions; the maximum score of this scale is 8 and the minimum score is zero. 5) Acceptance of positive emotions; the maximum score of this scale is 8 and the minimum score is zero. To obtain the total score of the questionnaire, the scores of all the questions are summed. This score will range from zero to 100. The higher the score, the more resilient the respondent will be, and vice versa. The cut-off point of this questionnaire is 50 points. In other words, a score higher than 50 indicates resilience, and the higher the score, the higher the resilience of the person. In the present study, the Cronbach's alpha for the resilience variable was 0.896.

Regarding the questionnaire of health-promoting lifestyle, it should be noted that this questionnaire was designed by Walker et al. (10, 11) in 1987 and includes 54 questions and its purpose is to measure six dimensions of health-promoting behaviors (nutrition, physical activity, spiritual growth, health responsibility, stress management and interpersonal relations). The questionnaire is based on Likert-type response scale; never (1), sometimes (2), often (3), always (4). The score of each dimension is obtained separately and a total score is obtained for all dimensions. The questionnaire includes nine questions about nutrition, eight questions about physical activity, nine questions about spiritual growth, nine questions about health responsibility, eight questions about stress management, and nine questions about interpersonal relations. The total score range is between 52 and 208. In a study by Mohammadi Zaidi et al. (2011), the validity of the questionnaire has been confirmed. In this study, Cronbach's alpha for the lifestyle variable was 0.937.

Both descriptive and analytical statistics methods have been used to analyze the data obtained from the subjects. Data analyses were performed using SPSS. For describing the data, descriptive statistics in proportion to the levels of mean, median, percentage and frequency were used, and in the analytical statistics section, Pearson correlation coefficient was used with 'r' value interpretation. P-value less than 0.05 was considered significant.

Results

Finally, a total of 207 people were included in the study, of which 104 (50.2%) were male and 103 (49.8%) were female. Moreover, 10.1% of the staff were in the age group of 20 to 25 years, 13% in the age group of 26 to 30 years, 24.2% in the age group of 31 to 35 years, 29% in the age group of 36 to 40 years and 23.7% were over 40 years of age. In terms of marital status, 48 (23.1%) people were single and 159 (76.9%) people were married.

According to Table 1, the mean resilience score among the staff was 62.75. The mean value in the dimension of personal competence was 23.72, personal strength was 20.13, acceptance of positive emotions was 4.47, acceptance of negative emotions was 5.73 and trust in personal instinct was 9.27. Furthermore, as shown in Table 2, the mean health-promoting lifestyle score among the staff was 131.69. Mean values in the dimension of nutrition were 29.54, physical activity 31.15, stress management 13.72, interpersonal relations 16.90, spiritual growth 19.63, and health responsibility 20.74.

Variable	Mean±SD (Minimum-Maximum)
Resilience	62.75±12.24 (29-99)
Personal competence	23.72±2.1 (8-36)
Personal strength	20.13±5.29 (5-32)
Acceptance of positive emotions	4.47±1.29 (1-8)
Acceptance of negative emotions	5.73±1.2 (3-8)

Trust in personal instinct	9.27±2.71 (1-15)

Table 1. Description of statistical indicators of resilience and its dimensions

Variable	Mean±SD (Minimum-Maximum)
Lifestyle	131.69±19.77 (87-204)
Nutrition	29.54±4.39 (20-41)
Physical activity	31.15±5.79 (16-48)
Stress management	13.72±2.9 (8-21)
Interpersonal relations	16.9±5.33 (8-31)
Spiritual growth	19.63±3.91 (8-32)
Health responsibility	20.74±3.59 (14-32)

Table 2. Description of statistical indicators of health-promoting lifestyle and its dimensions

Table 3 shows the correlation between resilience and its dimensions, and health-promoting lifestyle based on Pearson correlation coefficient. As observed, a significant direct correlation was found between resilience and health-promoting lifestyle (r=0.555, p<0.001). Moreover, the analyses showed that there are significant direct correlations between health-promoting lifestyle and each dimension of resilience, including personal competence (r=0.418, p<0.001), personal strength (r=0.522, p<0.001), acceptance of positive emotions (r=0.210, p=0.003), acceptance of negative emotions (r=0.223, p=0.001), and trust in personal instinct (r=0.482, p<0.001).

Variable	Health-promoting lifestyle	
	Correlation coefficient	p-value
Resilience	0.555	0.000
Personal competence	0.418	0.000
Personal strength	0.522	0.000
Acceptance of positive emotions	0.210	0.003

Acceptance of negative emotions	0.223	0.001
Trust in personal instinct	0.482	0.000

Table 3. Pearson correlation coefficient between resilience dimensions and health-promoting lifestyle

Discussion

In the present study, the status of resilience and health-promoting lifestyle and the relationship between them in the staff of Shahid Yahyanejad Hospital in Babol were investigated. As observed in this study, resilience was directly correlated with health-promoting lifestyle; people with higher resilience had higher scores in health-promoting lifestyles. In line with the results of this study, a study by Moshtaghi et al. (12) on nurses in Mashhad hospitals showed that resilience can improve the quality of life of nurses. In their study, Razmpush et al. (13) suggested that increase in resilience leads to better coping strategies and defense mechanisms in individuals and thus increases their quality of life. In addition, the study of Ghanbari Sartang et al. (14) in the hospitals of Ilam province showed that people who worked in rotating shift had lower scores in lifestyle and health promotion compared to those who worked in fixed shifts. Therefore, it was suggested that designing certain programs, such as preventing people from working in the shift system for a long time and performing psychological interventions to reduce the stress caused by shift work was effective in improving their health-promoting lifestyle.

Health-oriented lifestyle is a multi-causal and multi-dimensional phenomenon that is associated with collective patterns of behavior and can be an obstacle to health-related problems and ensure the health of the individual. This style has various dimensions, such as physical activity, appropriate and inappropriate nutrition, self-control, preventive behaviors, and so on (15, 16). A health-promoting lifestyle is one of the determinants of health. However, each person's lifestyle affects his/her health, and health-promoting activities and healthy lifestyles are the main strategies to facilitate and protect health. Thus, resilience is one of the behaviors that promote a person's health, just as resilience increases a person's ability to deal with risky and threatening factors and conditions and causes a person to show a behavior that reflects a health-promoting lifestyle (7, 17).

Researchers believe that there are moderating factors between stressful events and psychological disorders that cause stressful events to have different effects on individuals. One of these moderating traits is resilience. People with high positive emotions are known as resilient people (18). Resilient people use a broader moral dimension in critical events, feel more purposeful in life, and show more compassion for the plight of others. Resilience prevents people from becoming hopeless when coping with stress (19).

A health-promoting lifestyle has various dimensions, one of which is nutrition. By consuming the appropriate food, we can create mobility, efficiency, satisfaction and vitality in life and the power to fight problems (20). The other dimension of lifestyle is exercise and physical activity. During physical activity, diseases such as depression, anxiety and stress, and Alzheimer's disease, which may come to any person throughout life, gradually disappear due to the interactions that take place in the body (21). Interpersonal relations are another dimension of lifestyle that is a sign of mental health. Social support is based on the social ties between people that create security, peace, importance and respect in people and reduce anxiety and stress (7). Health responsibility also makes a person actively take responsibility for his/her health. A person who has such a responsibility towards himself/herself will naturally suffer less from job stress.

Stress management as a health-promoting behavior is a behavioral response that people use to reduce their stress. Spiritual growth as a lifestyle dimension can also be effective in reducing job stress (7, 19).

A limitation of the present study was that the results were only related to the staff of Shahid Yahyanejad Hospital in Babol, so the generalization of the results to other departments and organizations should be done with caution.

Discussion

Based on the results of this study, the total mean scores of resilience and health-promoting lifestyle were moderate in the stuff. There was also a direct correlation between resilience and health-promoting lifestyle. It is suggested to teach the resilience skills to the staff and propel them to lifestyles and behaviors that improve their health and raise their tolerance threshold in facing the problems.

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