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The Relationship Between Health-Promoting Lifestyle and Health-Related Organizational Climate in Governmental Departments

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Abstract

Background: Many people spend more than a third of their post-maturation on work. Thus, workplace environment and climate have a great impact on individuals' lifestyles, and work environment brings a health perspective that provides a healthier lifestyle for employees.

Objectives: The present study aimed to assess the staff's lifestyles and health behaviors as well as their relationship with organizational climate.

Methods: This cross-sectional study was conducted on 404 employees from governmental departments in Shiraz in 2018. The data were collected using a three-part questionnaire, including demographic information, health-promoting lifestyle, and organizational climate questionnaires. Data were analyzed using the SPSS-25 software. Multivariate analysis of variance (MANOVA) was used to determine the significant relationship between demographic characteristics and organizational climate, and health-promoting lifestyle indices. The correlations between the lifestyle dimensions of health promotion and organizational climate were analyzed.

Results: Age, education level, work experience, gender, and type of organization were the effective factors in the perception of organizational climate. In addition, work experience, type of organization, and the organizational climate governing the workplace were the determinants of the health-promoting lifestyle. The results revealed a significant, positive, weak correlation between the health-promoting lifestyle and organizational climate. A significant correlation was also observed between self-actualization and organizational climate ($r = 0.290$, $P < 0.001$).

Conclusions: It is necessary to identify which individual and organizational characteristics should be improved to support the organizational climate to improve the health-promoting lifestyle.

Keywords: Health-Promoting Lifestyle, Organizational Climate, Employer

1. Background

The climate of an organization tracks everything in the field of health. In an organizational climate with a positive attitude toward health, the organization's atmosphere per se creates a space in which everything relevant to health is important (1). Organizational climate includes attitudes, behaviors, norms and values, personal responsibility, and human resources that are used for education and development. Human factors in this definition provide a bottom-up approach for safety (2). If an organization creates a healthy, good, or bad atmosphere, its new members will adapt to that atmosphere (3). A proficient manager can accelerate the movement toward organizational empowerment by providing a positive organizational climate by supporting people, creating an atmosphere of trust, fostering responsibility and creativity of individuals, reducing strict and unchangeable rules, and restructuring organizational units with small chains (4). Research also confirms the moderating effect of power and management on the organizational climate and ultimately organizational outcomes (4-6).

On the other hand, an unhealthy lifestyle might lead to illness, disease-related absenteeism, loss of productivity, and reduced ability to work. Workplace health promotion plans (WHPPs) aim to improve lifestyle and, consequently, improve health, workability, and productivity (7). Improvement of health is increasing due to its central role in health care. Today, due to the high cost of health-

care, the need for changing the treatment approach has been emphasized to prevent diseases or accidents. In this regard, the World Health Organization (WHO) has emphasized the importance of promoting health, including encouragement of healthy lifestyles, creation of a supportive environment for health, community empowerment, reorientation of health services, and designation of public health policies (8). The important point is that many people are struggling with active lifestyles and are trying to start and maintain them, but it is unclear how general workers can be kept active (9). In fact, living healthy in the world of science and technology, a world that is now moving towards full industrialization, is of particular importance. Today, "healthy workers in healthy workplace" is the motto of many offices (10).

Keeping employees healthy and productive is essential for promoting the productivity of both private and public sectors (11). In fact, health status is one of the most important factors in early retirement and reduction of staffing abilities. The health status of employees might be reduced due to the prevalence of chronic diseases that are rooted in lifestyle. An unhealthy lifestyle can lead to illness, absence from work, and low productivity (7). On the other hand, healthy staff are more productive and less likely to leave their workplace due to illness (12). Organizational climate is also one of the important determinants of employees' health in work environments.

2. Objectives

Considering the limitations of comparative studies on health-promoting lifestyle among employees of different organizations, especially its relationship with health-related organizational climate, the present study aimed to evaluate the staff's lifestyles and health behaviors and to investigate their relationships with organizational climate.

3. Methods

This descriptive-analytical study aimed to investigate and compare the employees of three organizations and departments, namely Department of Education, Medical University, and Oil Company, regarding organizational climate and its impact on the health-promoting lifestyle. Based on the study by Shu-Ling HUANG et al., considering a standard deviation of 0.51, and using the following formula, a 400-subject sample size was estimated. Considering a 5% dropout, 420 participants were recruited (13). Based on the estimated sample size, 105 questionnaires were sent to the Department of Education and Oil Company, and 210 questionnaires were sent to the Medical University due to its larger number of employees. Finally, 404 complete questionnaires were received.

$$n = \frac{Z^2_{1-\frac{\alpha}{2}}\,\delta^2}{d^2}$$

The inclusion criteria of the study were: (1) being a contractual or formal employee with at least two years of work experience; (2) willingness to participate in the study; (3) not suffering from chronic diseases such as cancer, diabetes, and renal failure; (4) having at least the fifth grade of elementary school degree, and (5) being employed in administrative and financial sectors. The exclusion criteria were unwillingness to participate in the study and incomplete questionnaires.

The study data were collected using a tool that consisted of three parts, the first of which was the demographic information form. The second part included the health-promoting lifestyle questionnaire, and the last part was associated with the health-related organizational climate. The Persian version of the Health Promoting Lifestyle Questionnaire was used to assess the health-promoting lifestyle. The questionnaire contained 52 items responded via a four-degree scale ranging from 1 (never) to 4 (always). This tool measured health-promoting behaviors in six dimensions, namely nutrition (having a pattern of food and choice of food with six questions), exercise (pursuing a regular sport pattern with five questions), health accountability (B) (10 questions), stress management (identifying stress sources and stress management measures with seven questions), interpersonal support (maintaining relationships with a sense of proximity with seven questions), and self-actualization (having a sense of purpose, following individual progress and self-esteem, and satisfaction with 13 questions). Walker and Hill Polski reported that the Cronbach's alpha of the questionnaire was 0.49 and ranged from 0.79 to 0.94 for the six subscales (14). In addition, the test-retest reliability of the questionnaire with a three-week interval was found to be 0.89. Moreover, the reliability and validity of the Persian version of this questionnaire were measured by Mohammadian et al., which revealed the Cronbach's alpha coefficient of 0.86 for the whole questionnaire and 0.70 - 0.77 for the subscales (15).

In the organizational climate questionnaire, 23 questions were derived from Life Gain Health Culture Audit (LHCA) developed by Allen and Linde in 1981 (16). The validity and reliability of this questionnaire were measured by Golaszewsk et al. in 2008, which revealed Cronbach's alpha = 0.934 (17). The 15 other questions were extracted from the essential health promotion sourcebook for workers, large and small, which is the purpose of Healthy People 2010 (18). In this questionnaire, each item was scored using a Likert

scale ranging from 1 to 6. The reliability and validity of this questionnaire were confirmed by the researcher.

The data were analyzed using the SPSS software. The validity and reliability of the questionnaire were assessed via Cronbach's alpha, Gutmann, and duplication methods. Cronbach's alpha coefficients of the perceived organizational climate questionnaire and the health-promoting lifestyle questionnaire were computed as 0.96 and 0.93, respectively. In Gutmann method, α = 0.71 was found for the perceived organizational climate questionnaire and α = 0.81 for the health-promoting lifestyle questionnaire. Normal distribution of the data was explored using Kolmogorov-Smirnov and Shapiro-Wilk tests.

4. Results

The research was conducted on 404 employees with the mean age of 37.50 $\pm$ 7.39 years and the mean work experience of 13.89 $\pm$ 7.73 years. Among the participants, 265 were female (65.59%), and 139 were male (34.40%). In addition, according to Figure 1, most participants had bachelor's degrees (n = 287, 71.03%). Prior to analyzing the research hypotheses via the regression method, regression assumptions were evaluated. The results of the Kolmogorov-Smirnov test were not significant for any of the variables, suggesting that all variables followed normal distribution.

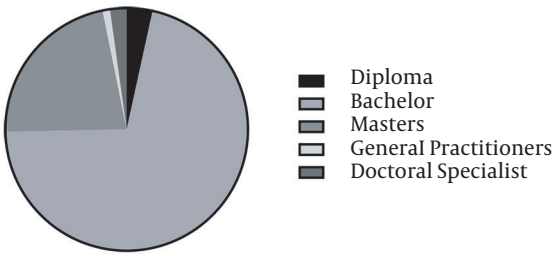

Figure 1. Distribution of the participants' education status

Multivariate analysis of variance (MANOVA) was used to determine the significant relationship between the demographic characteristics and the organizational climate index. The results have been presented in Table 1.

The results presented in Table 1 showed that age, education level, work experience, gender, and type of organization were effective in the perception of organizational climate.

MANOVA was used to determine the significant relationship between the demographic features and organizational factors, and health-promoting lifestyle. The results are presented in Table 2.

The results presented in Table 2 indicated that work experience, type of organization, and the organizational climate governing the offices were the determinants of the health-promoting lifestyle.

The results revealed a significant, positive, weak correlation between the health-promoting lifestyle and organizational climate (r = 0.265, P $\leq$ 0.001). The results presented in Figure 2 also showed a correlation between the health-promoting lifestyle dimensions and organizational climate. The highest correlation was observed between self-actualization and organizational climate (r = 0.290, P < 0.001).

5. Discussion

A healthy lifestyle is a valuable resource for reducing the incidence and effects of health problems, promoting health, tackling stressors, and improving the quality of life. Considering the effective role of employees as valuable human resources in providing services as well as the impact of organizational climate on their employees and their health, the present study was conducted to investigate organizational climate, lifestyle, and some related factors among the staff working in offices in Shiraz.

The results showed that the variables that significantly affected the organizational climate in governmental departments were mainly related to the individuals' demographic characteristics. This was consistent with the results of a study performed by Garcia on the organizational climate of the nursing environment (19). These results also supported the mental perspective in the definition of climate (20).

The results of the present research demonstrated that the organizational climate varied in different departments, which was in agreement with the findings of the study by Robert Coda et al., which indicated that different factors, including motivation, management, leadership, management philosophy, and nature of work, affected organizational climate, which varied from one organization to another (21). Considering the differences in the management and existential philosophy of these organizations, the difference in the organizational climate of different agencies seems logical.

In the current study, the total mean score of Health-Promoting Lifestyle Profile (HPLP) was 2.59. The mean score of HPLP was also found to be 2.47 among the staff of 20 Taiwanese companies in the study performed by Shu-Ling Huang (13). Moreover, the present study findings showed a significant difference between different organizational climates regarding the health-promoting lifestyle. Similar results were also obtained by Shu-Ling Huang (13). However, Kathryn von Treuer et al. acknowledged that there was no

Table 1. The Results of MANOVA for the Major Variables in the Organizational Climate Index

Effective Variables/Variance Resources	Sum of Squares	Degrees of Freedom	Average of Squares	F	P	Squared Coefficient R	Coefficient Squared β
Age				3.320	0.000 [a]	0.156	0.230
Intragroup	81653.436	1	2474.347				
Intergroup	272744.954	32	745.205				
Sum	354395.390	33					
Education level				7.753	0.000 [a]	0.045	0.072
Intragroup	25743.360	1	6435.826				
Intergroup	32704.223	3	830.059				
Sum	33176.526	4					
Work experience				3.154	0.000 [a]	0.150	0.248
Intragroup	88357.637	1	803				
Intergroup	267574.213	37	432				
Sum	355931.851	38					
Gender				5.012	0.026 [a]	0.107	0.012
Intragroup	352623.132	1	4396.132				
Intergroup	352623.422	402	877.173				
Sum	357019.554	403					
Organizations				110.750	0.000 [a]	0.348	0.355
Intragroup	126856.939	1	63428.470				
Intergroup	230231.861	1	572.716				
Sum	357088.800	2					

[a] Significant at < 0.05

significant relationship between health outcomes and organizational climate (22).

The present study results revealed a significant, positive, weak correlation between the health-promoting lifestyle and organizational climate. This result was supported by that of the research carried out by Hui-Chun Chung et al. on nurses. They established that there were positive correlations among the nurses' health-promoting lifestyle, well-being, and work environment satisfaction (23). This implies that different work environments and organizational climates can inspire different health-promoting lifestyles. Considering the relationship between the health-promoting lifestyle dimensions and organizational climate, the highest correlation was observed between self-actualization and organizational climate. Similarly, Joseph-Shehu, Shi-Chen Zhang, and Pender reported that the workers' highest scores were related to self-actualization (24-26). Generally, having a job and a regular income may influence both self-respect and self-actualization (27). Bibi Alajmi and Hessah Alasousi (2018) disclosed that the employees agreed that their needs were being satisfied at each of the five levels of Maslow's hierarchy and reported higher levels of satisfaction of their self-actualization and social needs (28). Therefore, it seems that organizational climate is associated with self-actualization and, consequently, job satisfaction. Theoretically, these results were consistent with Sudarno and Sukmaningrum's opinions, indicating the significant, positive effect of organizational climate on employees' job satisfaction (29). On the other hand, physical activity and responsibility showed the weakest correlation with organizational climate. Alruqi et al. also emphasized the impact of health responsibility on the organization's health climate (30). In the same vein, Joseph-Shehu et al. referred to participation in all aspects of health-promoting lifestyle, especially health responsibility, as the most desirable factor in reducing the risk of non-communicable diseases, particularly among adults in developing countries (26). However, Choy HK et al. conducted a study on health-promoting lifestyles among healthcare providers and reported that the lowest score was related to health responsibility (31).

The findings of the study by Yang et al. showed low lev-

Table 2. The Results of MANOVA for the Main Variables in the Health-Promoting Lifestyle Index

Effective Variable/Variance Resources	Sum of Squares	Degree of Freedom	Average of Squares	F	P	Squared Coefficient R	Coefficient Squared β
Age				0.853	0.677	0.025	0.103
Intragroup	10705.373	1	396.495				
Intergroup	93390.907	26	464.631				
Sum	104096.279	27					
Education level				1.388	0.239	0.016	0.024
Intragroup	2517.646	1	629.411				
Intergroup	101578.634	3	453.476				
Sum	104096.279	4					
Work experience				1.735	0.013 [a]	0.009	0.221
Intragroup	22977.382	1	718.043				
Intergroup	81118.897	31	413.872				
Sum	104096.279	32					
Gender				0.920	0.338	0.004	0.004
Intragroup	420.385	1	420.385				
Intergroup	103675.895	227	456.722				
Sum	104096.279	228					
Organizations				3.212	0.042 [a]	0.025	0.028
Intragroup	2877.363	1	1438.681				
Intergroup	101218.917	1	447.871				
Sum	104096.279	2					
Organizational climate				1.590	0.002 [a]	0.157	0.433
Intragroup	45082.532	74	609.223				
Intergroup	59013.747	154	383.206				
Sum	104096.279	228					

[a] Significant at < 0.05.

els of physical activity among healthcare workers, which was consistent with the weak correlation between organizational climate and physical activity in the current study (32). Yang et al. attributed the low level of physical activity among employees to their heavy workloads. In the present study, stress control and interpersonal relationships also had the lowest correlations with organizational climate. A prior investigation also reported that stress management was not adequately practiced by the respondents (26). This finding was supported by the observation that the employees were faced with stresses resulting from heavy workloads, extended working hours, and time-related factors (33). Ramos et al. concluded in their study that interpersonal relationships and organizational climate were the sources of stress that significantly correlated to job stress (34). However, a study on healthcare workers revealed low levels of interpersonal relationships in the workplace (32). A sense of competition for career advancement among employees can be a factor that weakens interpersonal relationships.

The current study results revealed no significant correlation between nutrition and organizational climate. Nonetheless, some studies have shown a relationship between nutrition and the work environment. For instance, it has been reported that "employees may benefit from having healthier food choices at the worksite as they may be more likely to choose available healthier options. Providing more time for meals or other stress-reducing strategies may promote more healthful behaviors (35)".

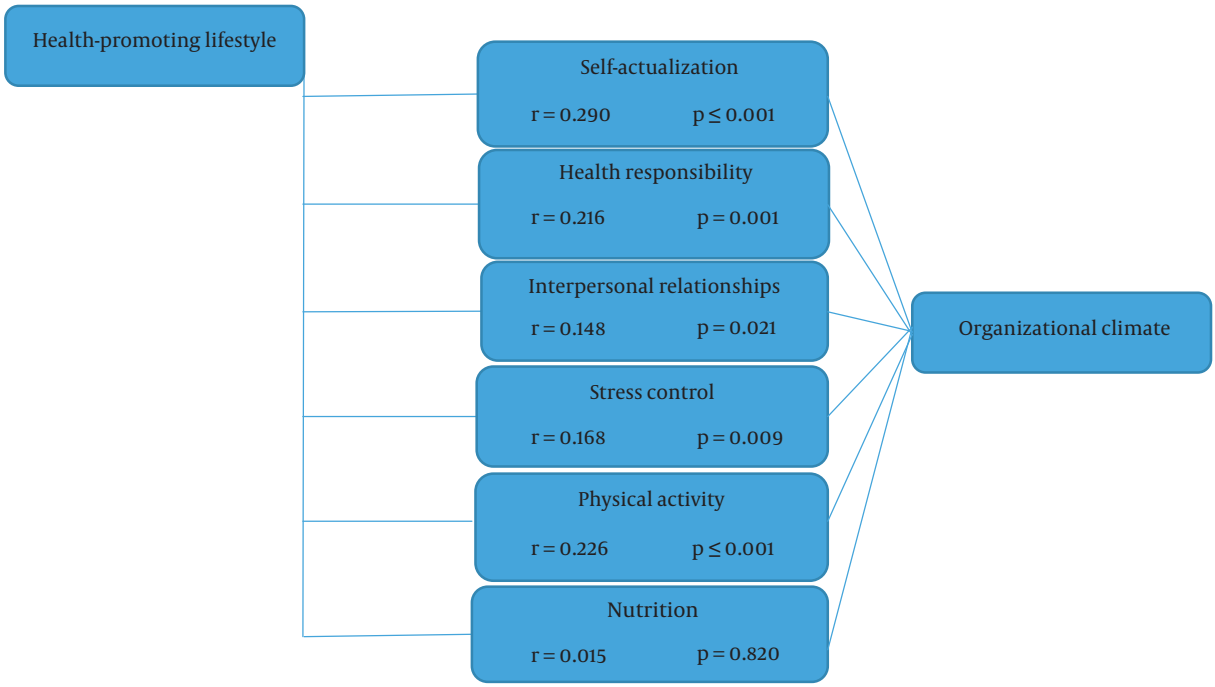

Figure 2. The correlation between the health-promoting lifestyle dimensions and organizational climate

5.1. Conclusion

In the present study, the organizational climate was one of the most important predictors of HPLP. Therefore, it is very important to predict the employees' health status. Since a healthy organizational environment has a positive impact on employees' motivation, creating a supportive work environment can be helpful. Yet, further studies are required to be conducted on the factors affecting the organizational climate to determine the required factors for achieving a healthier environment. In other words, it is important to identify which individual and organizational characteristics should be improved to support the organizational climate to promote health-promoting lifestyles. Future studies using a longitudinal design with random sampling are recommended to illustrate other facilitating variables for the development of healthy lifestyles.

5.2. Limitations

Owing to the busy schedule of senior and middle managers and the difficulty of accessing them, in this study, managers of organizations were not included in the study, but considering that the lifestyle of employees with all personal knowledge and personality traits is influenced by the organizational climate and the organizational environment is influenced by managers by creating rules and regulations, healthy communication, norms, values, social and organizational control as well as organizational socialization, so it is recommended to study the organizational health climate in which senior and middle managers participate.

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Footnotes

Authors' Contribution: JO, MH K, principal investigators, conceptualized and designed the study, prepared the draft of the manuscript, and reviewed the manuscript; MH K, L Gh, led the data collection in the Northern region, advised on the data analysis and interpretation, and reviewed the manuscript; MN, AA, led the data collection in the Southern region and reviewed the manuscript; L Gh and MN, led the data collection in the central region and reviewed the manuscript; JO, reviewed the manuscript; JO, MH K,

and AA, conducted the study, data analysis, and interpretation, assisted in drafting of the manuscript, reviewed the manuscript for important intellectual content.

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