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The effect of bibliotherapy on the psychological capital of the staff of the School of Management and Medical Informatics of Isfahan University of Medical Science

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Abstract:

BACKGROUND: Bibliotherapy is defined as using dynamic interaction along with reading a book in order to help the people to increase their cognitive understanding. This study aims to investigate the effect of bibliotherapy on the psychological capital of the employees of the Department of Management and Medical Informatics of Isfahan University of Medical Science.

MATERIALS AND METHODS: This is an applied study using a semi-empirical method. The statistical population consists of all nonfaculty employees of the target department (70 people). Twenty eight people were randomly selected and divided into experiment and control groups and answered the psychological capital questionnaire. The data gathering tool was the psychological capital questionnaire of Luthans. The experiment group underwent six 2-h sessions of bibliotherapy where the control group underwent no interference. Both groups answered the questionnaire again 1-month after the final bibliotherapy session. The information was analyzed using descriptive (average and frequency distribution) and analytical (independent *t*-test, paired *t*-test, Chi-square test, and Mann–Whitney U-test) with the help of SPSS 20 software.

RESULTS: The findings showed no meaningful distinction average scores of the physiological capital of both groups before interference. However, the average physiological capital score and an average score of each factor in the experiment group was meaningfully higher than that of the control group after the bibliotherapy sections.

CONCLUSION: The results showed that bibliotherapy is a suitable method for increasing the psychological capital of the employees of different organizations which will in turn provide both the employees themselves and the organization with material and spiritual gains.

Keywords:

Bibliotherapy, employees, Isfahan University of Medical Science, psychological capital

Introduction

Today's society is an organizational society, and we spent a major part of our lives working in different organizations or interacting with them.^[1] The general opinion among the theorists is that there must be a balance between the negative and positive aspects of an organization and that we must endeavor to move toward positive

organizational behavior.^[2] Human resources are one of the most important parts of every organization especially universities and many studies focus on faculty members and other employees of universities as part of an organization.^[3-5]

Psychological health is without doubt one of the most important factors in ensuring the efficiency in every organization. Nowadays

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most psychologists try to find ways to deal with the problems of different people with different social standings.^[6] Due to a small number of experienced practitioners and consulting services and the high cost of these services, it is important to create new, simple and inexpensive ways for providing consulting services in a national scale.^[7] It is believed that the promotion of bibliotherapy can provide the patients with a simple and effective method of treatment. Despite the long and effective background of bibliotherapy, it has gained the special attention only in the last two decades. In 1815, Benjamin Rash was the first person to use bibliotherapy in order to treat the patients and later in 1853 John Mill Sangelt used bibliotherapy to treat the psychological patients.^[8] Bibliotherapy is a process or activity that uses dynamic interaction along with reading a book in order to help the people to solve problems or increase their cognitive understanding. There is no previous study for investigating the direct effect of bibliotherapy on psychological capital, but some studies investigated the effect of bibliotherapy on different parts of the psychological capital such as optimism, confidence, and hopefulness. Some of these studies are mentioned below.

GholiZadeh *et al.* conducted a study called "The Effect of Bibliotherapy on the self-management skills of Elderly." Their findings showed that bibliotherapy can greatly improve the self-management skills of the elderly, thus improving their life quality.^[9]

Nokarizi and Alemzadeh in a study titled "The effect of Bibliotherapy on Symptoms Internalization and externalization of deaf elementary school students of Vesal especial care school of Birjand" showed that bibliotherapy can help to reduce the internalization symptoms such as stress, depression, withdrawal and physical complaints and externalization symptoms such as lawless and aggressive behavior and can also help to reduce the social problems of the students.^[10]

Ebadi *et al.* Conducted a study titled "Investigating the Effectiveness of Teaching Positive Thinking in Increasing the Life Expectancy of Unmarried Women of Ahwaz with Emphasis on Quran." Their results showed that based on the results of follow-up test the intervention produced stable results.^[11]

Syfizadh in a study called "Organizational Culture and Psychological Capital among employees of Mashhad Ferdowsi University" showed a positive relation between the organizational culture and psychological capital of the employees.^[2]

Frieswijk *et al.* published a study titled "The effectiveness of a bibliotherapy in increasing the self-management ability of slightly too moderately frail older people"

and showed that bibliotherapy is greatly effective in increasing the self-management abilities of the elderly and their life quality and involvement in the society and also helps them to maintain a certain level of health.^[12]

In a study by Chai and Yuyoung titled "The use of bibliotherapy in natural environments to develop the social skills in young children" the results showed that bibliotherapy can increase the problem-solving abilities and social skills of children.^[13]

Muto *et al.* conducted a study called "The effectiveness of acceptance and commitment therapy bibliotherapy for enhancing the psychological health of Japanese college students living abroad." Their results showed that bibliotherapy is increasing the psychological health of the college students and their flexibility.^[14]

The findings of the various studies about bibliotherapy show that bibliotherapy is an effective method for improving the psychological state of people. Due to the advantages of bibliotherapy, this method can be easily used in organizations in the form of group workshops or individual sessions. The goal of the current study is to investigate the effectiveness of bibliotherapy on the psychological capital of the nonfaculty employees of the Department of Management and Medical Informatics at the Isfahan University of Medical Science. This method can be used to improve the psychological capital of the employees and improving their life quality. By using bibliotherapy workshops held by relevant authorities, librarians and university's consultants in order to increase the psychological capital of the employees and increasing the factors affecting their resiliency, optimism, hopefulness, and self-efficiency, it is possible to increase the social welfare of the employees, leading to a improvement of the society as a whole. This study investigates the effect of bibliotherapy on the psychological capital and each of the factors effecting the psychological capital including self-efficiency, hopefulness, resilience, and optimism.

Materials and Methods

This is an applied study using semi-empirical method (two group design with pretest and posttest). The statistical population included all no faculty employees working the Department of Management and Medical Informatics of Isfahan University of Medical Science (70 employees). The sampling was done using the census method which selected 30 employees who, when, then randomly placed in experiment and control groups (15 employees each), however, two of the selected employees withdrew from the program. The data gathering tool is the psychological capital questionnaire of Lathan's.^[3] This questionnaire has 24 questions and four dimensions. The dimensions

of this questionnaire are self-efficiency (question 1–6), hopefulness (questions 7–12), resilience (questions 13–18) and optimism (questions 19–24) and each dimension has 6 items. The participant answers each item using a 6° scale (Fully agree, Agree, Somewhat agree, Somewhat disagree, Disagree, and Fully disagree). For calculating the psychological capital score, first the score of each dimension was separately calculated and then the sum of all 4 scores was reported as the psychological capital score. The first dimension had a total score of 36, the second dimension a total of 36, the third dimension a total of 31, and the fourth dimension had the total score of 26 leading to a maximum psychological capital score or 129. The validity of the questionnaire was confirmed by librarianship and informatics and psychology experts, and its reliability was calculated using Cornbrash’s alpha which showed a score of 0.85.^[15,20] During the data gathering, the name of the participants was not mentioned in the questionnaire. Also filling the questionnaire was voluntarily, and participants were assured that the gathered information is fully confidential and will only be used for research purposes.

Both the experiment and the control groups were evaluated during the pretest. Experiment group underwent bibliotherapy sessions using a booklet extracted from “Psychological capital of an organization: Improvement of competitive advantage of human capital” by Latham’s and translated by Jamshidian and Forouhar^[16] and also “Positive psychology for Dummies” by April and Gladiana and translated by Moghadam.^[17] The bibliotherapy was conducted in six 2 h long sessions and the control group underwent no intervention. After 1-month, both groups were again evaluated during the posttest. The analysis of information was conducted using descriptive and analytical (Fisher’s exact test for determining the frequency distribution of gender and marital status of the participants, Chi-square test for determining the frequency distribution of employment type, Mann–Whitney U-test for determining the frequency distribution of the education level of the participants, independent and paired *t*-test for comparing the average psychological capital score and sub-scores in pretest and posttest) using SPSS 20 software (IBM Corp.:Armonk, NY).

Results

Among 28 no faculty employees working in Department of Management and Medical Informatics of Isfahan University of Medical Science participating in this study, 14 of them were in the control group and 14 in the experiment group. The return rate of the questionnaires was 100%. Fisher’s exact test showed that there was no meaningful difference between the gender and marital status of control and experiment groups

($P = 0.5$ and $P = 0.55$ respectively). Also Chi-square test showed no meaningful difference between the employment type of control and experiment groups ($P = 0.270$) and Mann–Whitney U-test showed no difference between the education level of both groups ($P = 0.427$).

Table 1 shows the average total psychological capital score of control and experiment groups before and after the intervention. According to the results, the average score of two groups had no meaningful difference during pretest ($P = 0.654$) while the average psychological capital score of experiment group was meaningfully higher than that of control group during the posttest ($P = 0.0001$). Also the average psychological capital score of the control group had no meaningful difference between pretest and posttest ($P = 0.497$) while the average score of the experiment group was meaningfully higher during posttest compared to the pretest ($P = 0.0001$).

Table 2 shows the average psychological capital score in the dimensions of self-efficiency, hopefulness, resilience, and optimism. The results show no meaningful difference between the average scores of experiment and control groups before intervention in the dimensions of self-efficiency ($P = 0.747$), hopefulness ($P = 0.665$), resilience ($P = 0.374$), and optimism ($P = 0.957$). However, the average scores of experiment group in the dimensions of self-efficiency ($P = 0.051$), hopefulness ($P = 0.0001$), resilience ($P = 0.028$), and optimism ($P = 0.001$) were meaningfully higher than that of control group.

Also Table 2 shows that in the experiment group, the average scores of the dimensions of self-efficiency ($P = 0.001$), hopefulness ($P = 0.0001$), resilience ($P = 0.001$) and optimism ($P = 0.007$) were meaningfully higher after the intervention and the change in the average score of the dimension of optimism was higher than changes in other dimensions. However, no meaningful difference existed in the average total psychological capital score or dimension scores of the control group.

Discussion

The goal of the current study was to determine the effect of bibliotherapy on the psychological capital

Table 1: Average and SD of psychological capital score before and after intervention in experiment and control groups

Group	Before intervention		After intervention		P (independent t-test)
	Average	SD	Average	SD	
Experiment group	115.14	13.32	129.28	8.92	0.0001
Control group	117.21	10.74	115.35	9.47	0.497
Paired t-test (P)	0.654		0.0001		-

SD = Standard deviation

Table 2: Average and SD of average score of the four dimensions of psychological capital before and after the intervention in control and experiment groups

Dimension	Group	Before intervention		After intervention		Independent t-test (P)
		Average	SD	Average	SD	
Self-efficiency	Experiment	29.71	5.56	33.14	3.27	0.001
	Control	30.28	3.45	30.64	3.17	0.719
	Paired t-test (P)	0.747		0.051		-
Hopefulness	Experiment	29.28	3.47	33.50	2.34	0.0001
	Control	29.85	3.43	29.07	2.99	0.504
	Paired t-test (P)	0.665		0.0001		-
Resilience	Experiment	28.57	2.50	31.57	3.08	0.001
	Control	29.57	3.29	29.07	2.58	0.548
	Paired t-test (P)	0.374		0.028		-
Optimism	Experiment	27.57	4.25	31.07	3.95	0.007
	Control	27.50	2.40	26.57	2.10	0.529
	Paired t-test (P)	0.957		0.001		-

SD = Standard deviation

of the no faculty employees working in Department of Management and Medical Informatics of Isfahan University of Medical Science. Investigating the effects of the bibliotherapy on the psychological capital of the employees showed that there was no meaningful distinction between the average psychological capital score of experiment and the control groups before intervention; however, the average score of experiment group was meaningfully higher than that of control group after intervention. Also, the average psychological capital score of the control group wasn't meaningfully different before and after intervention while the average score of experiment group showed a meaningful increase after the intervention. Also the results showed that with the increase in the psychological capital score, the score for the four subcategories (including self-efficiency, hopefulness, resilience, and optimism) and organizational culture, entrepreneurship, social success, self-management, organizational commitment, citizenship behavior and the loyalty of the employees also improves. This is in agreement with the results reported by Syfizadh,^[3] Forouhar,^[5] House,^[18] Abele and Spurk,^[19] Lifeng^[20] and Rowe^[15] believed that a higher psychological capital can lead to better organizational behavior.

Investigating the effect of bibliotherapy on the subcategory of self-efficiency in the employees of the Department of Management and Medical Informatics of Isfahan University of Medical Science showed that there was no meaningful distinction between the average score of control and experiment groups before intervention. However, the average score of experiment group was meaningfully higher than that of the control group after the intervention. Also, the average score of the control group didn't meaningfully change before and after intervention while the average score of the control group showed a meaningful increase following an intervention. These results show that bibliotherapy can help to

improve the self-efficiency of the employees which is in agreement with the results reported by Mazaheri *et al.*^[21] Parirokh and Nazari,^[22] Amirklaly^[23] Zare-Farashbandi and Salimi,^[24] Barkhouri *et al.*,^[25] Abasiyanfard *et al.*,^[26] Karacan and Yerin,^[27] and Abele and Spurk^[19] who used different education methods in order to improve the self-efficiency.

Investigating the effect of bibliotherapy on the subcategory of hopefulness in the employees of the Department of Management and Medical Informatics of Isfahan University of Medical Science showed that there was no meaningful distinction between the average hopefulness score of experiment and control groups before the intervention, however, the average score of experiment group was meaningfully higher than that of control group after intervention. Also, the average hopefulness score of the control group wasn't meaningfully different before and after intervention while the average score of experiment group showed a meaningful increase after the intervention. These results show that bibliotherapy can help to improve the hopefulness of the employees which is in agreement with the results reported by Ebadi *et al.*,^[11] Kamali,^[28] Alaedini,^[29] Muto *et al.*^[14] and Lifeng^[20] that successfully used several methods to increase the hopefulness of individuals.

Investigating the effect of bibliotherapy on the subcategory of resilience in the employees of the Department of Management and Medical Informatics of Isfahan University of Medical Science showed that there was no meaningful distinction between the average resilience score of control and experiment groups before intervention. However, the average resilience score of experiment group was meaningfully higher than that of the control group after the intervention. Also, the average resilience score of the control group didn't meaningfully change before and after intervention while the average score of the control group showed a meaningful increase

for following an intervention. These results showed that bibliotherapy can effectively improve the resilience of individuals which is similar to the results reported by Sohrabi and Javanbakhsh,^[30] Gholizadeh *et al.*,^[9] Kamali,^[28] Nokarizi and Alemzadeh,^[10] Jernelöv *et al.*^[31] and Frieswijk *et al.*^[12] who demonstrated the possibility of increasing resilience of individuals using several methods.

Investigating the effect of bibliotherapy on the subcategory of optimism in the employees of the Department of Management and Medical Informatics of Isfahan University of Medical Science showed that there was no meaningful distinction between the average optimism score of experiment and control groups before intervention, however, the average score of experiment group was meaningfully higher than that of control group after intervention. Also, the average optimism score of the control group wasn't meaningfully different before and after intervention, while the average optimism score of experiment group showed a meaningful increase after the intervention. These results show that bibliotherapy has been successful in improving the optimism of the employees which is similar to the results reported by Alibayg *et al.*,^[32] Shiri *et al.*,^[33] Barkhourri *et al.*,^[25] Lifeng,^[20] Jernelöv *et al.*^[31] and Schechtmon and Nachshol^[34] what showed the effectiveness of various methods in improving the optimism of individuals.

Conclusion

Each organization has a specific place and role in society. Experts of management agree that the effectiveness of any organization is dependent on a suitable structure, competent and efficient employees and proper usage of available resources, especially human resources. In educational organizations such as a university, human resources gain special importance because human resources affect every level of system from input to process and output of the system and directly affect the students, education and research in these organizations. Due to the teachable nature of psychological capital and its financial and spiritual uses in an organization, one can use different educational workshops to improve the psychological capital of the employees of any organization, thus improving the organization as a whole. Bibliotherapy with the help of psychologists and librarianship experts is among the easy and inexpensive methods of improving psychological capital or an organization. With the improvement of literacy and reading culture and novel technologies in the current era of information technology, bibliotherapy can be used as a perfect treatment or at least an adjunct therapy method in order to battle the anxieties and stresses caused by today's busy lifestyle.

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Conflicts of interest

There are no conflicts of interest.

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