The Effectiveness of Iranian Traditional Music Package on Job Performance and Positive and Negative Emotions of Employees by Gender

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Abstract

Introduction: Music therapy as an intervention improves mental health in the work environment.

Objective: The present study aimed to investigate the effectiveness of the Iranian traditional music package on job performance and the positive and negative emotions of employees by gender.

Method: The present applied study is quasi-experimental with a pretest-posttest design and a control group. The statistical population included all employees of Mehr Asa Bam Company, Tehran, Iran. A total of 60 employees who were always available volunteered. Then, the participants were matched based on gender, marital status, and educational status, and randomly assigned to each group (30 employees). Data were analyzed using SPSS software (version 22).

Results: The results of multivariate analysis of covariance (MANCOVA) revealed that the Iranian traditional music package increased job performance and positive emotions of male and female employees and decreased their negative emotions (P<0.001). Therefore, music therapy was found to be effective.

Conclusion: Music therapy can be said to improve job efficiency in the workplace and is an appropriate tool for organizational development and related variables.

Keywords: Gender, Job performance, Music therapy, Positive and negative emotions, staff

Introduction

Mental health is one of the most important issues which affects the development of the family and society. As a result, employees fail to have enough power and interest to work in an organization if they receive no benefit from it (1). Manpower is one of the main resources and assets of any organization and its health plays a decisive role in increasing productivity. Therefore, any planning and even investment in this sector that leads to maintaining and improving the health of employees can ultimately lead to increased efficiency and return on investment (2). According to various studies, music therapy increases mental health in clinical and non-clinical samples. For example; in one study, music therapy was concluded to reduce the symptoms of depression and anxiety in women with Premenstrual Syndrome (PMS) (3).

Most studies have shown that music increases job performance (4). The concept of job performance has been considered by many organizations due to the high importance of productivity. Job performance is the expected value of organizations from behavioral events that individuals perform over a while (5). Job performance is a qualitative and quantitative result obtained after performing and completing the assigned tasks by an individual or a group of individuals (6). According to Katz and Kahn (1978), the role of the organization divides job performance into behavioral and meta-behavioral roles. In the behavioral role of job

performance, individuals and employees act according to the instructions, rules, and expectations of the organization and evaluation can only be done based on job performance. While in the meta-behavioral role, job performance is based on insight and knowledge of individuals and the instructions have no role (7).

Music and its themes can evoke positive and negative emotions in different people and environments (8). Emotions are an essential part of the dynamic system of human personality (9). Watson and Clark divided emotions into two basic emotional dimensions, one of which is negative emotions (10). Negative emotions mean how much one feels unhappy and unpleasant. Negative emotions are the general dimension of inner despair and failure to engage in pleasurable work, which is followed by avoidant moods such as anger, sadness, hatred, humiliation, guilt, fear, and anger. The second dimension is positive emotions, which is a conscious emotional characteristic and is a state of active energy, high concentration, and engagement in enjoyable work, and includes positive feelings and emotions such as pleasure, joy, enthusiasm, and pride. Therefore, positive and negative emotions represent the main dimensions of emotional states (11).

Music therapy can increase satisfaction, positive emotions, and job performance and lead organizations to their main goals. Research findings have shown that

music and music therapy is an effective and safe in employees and modulate their moods and emotions (12). Various studies have examined the effect of music therapy on job characteristics, for example, one study demonstrated that cool colors and fast-paced music create strong emotions and more excitement in customers (13). The finding of another study showed that music therapy in the workplace has increased awareness and relaxation, and reduced work stress in employees (14). Another study found that receiving music therapy improved teamwork and individual growth in job performance (15). The results of a study in Czechoslovakia revealed that music therapy is involved in improving the work environment more than other therapies (16).

Job performance is the activities related to the specific job which is expected of an employee and the way those activities are performed. The beneficial effect of music on job performance can be explained by increasing a positive emotional state. Every organization tries to adopt different management methods to achieve organizational goals and survival. For this continuity, any organization should satisfy the needs of employees to improve job performance and the success of the organization. Among the factors affecting job, performance is listening to music while performing job duties which is an unusual and perhaps unique topic. Accordingly, the researcher seeks to answer whether the Iranian traditional music package significantly affects job performance and the positive and negative emotions of employees according to their gender.

Research Methods

The present applied study is quasi-experimental with a pretest-posttest design and a control group. The population included all employees of Mehr Asa Bam Company. According to Cochran's formula, 60 employees who were always available volunteered. These individuals were then matched based on gender, marital status, and educational status, and randomly assigned to each group (30 employees). Inclusion criteria included having at least 3 years of work experience in the company, being in the age range of 22 to 45 years, and having at least a diploma. Both groups were asked to complete the research tools in the pre-test and post-test. For the experimental group, 15 sessions of passive music therapy (3 times a day for 30 min) and 6 active sessions for each person (one hour per session) were performed. The control group was placed on the waiting list. The rules of participating in the research included confidentiality, informed consent, and regular attendance in group training sessions. Also, the general process of music therapy programs and sessions was explained to the participants. SPSS software (version 22) was used for analyzing data.

intervention to reduce stress, irritability, and loneliness

Research Tools

A- Demographic questions: Demographic questions includes information about age, gender, marital status, level of education, employment status, and experience.

B- Job Performance Questionnaire: The 15-item Job Performance Questionnaire was developed by Patterson (1990), which is used to measure the job performance of employees. The questionnaire is scored on a 4-point Likert scale (0=rarely, 1=sometimes, 2=often, and 3=always) and the range of scores of each subject is between 0 and 45. In the study of Aslanpoor Jokandan *et al.* (17), the reliability of the questionnaire was obtained at 0.86 and 0.79 using Cronbach's alpha and halving, respectively. The validity of this scale was also obtained through its correlation with a general researcher-made question of r = 0.61 at the significance level of p <0.001. In the present study, the Job Performance Questionnaire had internal consistency with Cronbach's alpha coefficient of 0.86.

C- Positive and Negative Affect Schedule (PANAS): The present 20-item scale was designed by Watson, Clark, and Tellegen in 1988 for the positive and negative emotion subscales. The scale is scored on a 4-point Likert scale (1= by no means to 5= very much). The minimum and maximum scores in each subscale of the list are 10 and 50, respectively. The obtained Cronbach's alpha is above 0.70 for both subscales. Watson *et al.* (18) reported Cronbach's alpha coefficient of 0.88 and 0.87 for the subscales of positive and negative emotions, respectively. Also, the validity of the retest was 0.68 for the positive emotion subscale, and 0.71 for the negative emotion subscale with an interval of 8 weeks. Bakhshipour and Dezhakam (19) proved that the two-factor model of positive and negative emotion is the best model for this scale and the validity coefficient of the two subscales was obtained at 0.87 using factor analysis. In the present study, Cronbach's alpha was 0.88 and 0.81 for the positive and negative emotion subscales. The scale of positive and negative emotions had an internal consistency with Cronbach's alpha coefficient of 0.83.

Summary of music therapy sessions

A total of 15 sessions of passive music therapy (3 times a day for 30 min) and 6 active sessions for each person (one hour per session) were performed. The order of the selected pieces was as follows: 1) The second piece of Dozarbi (Avaz-e Bayat Tork) by Farhang Sharif, 2) Solo of Mohammadreza Lotfi, 3) Bahar by Farhang Sharif, 4) Sherang by Keyhan Kalhor, 5) Khazan by Parviz Meshkatian, 6) Salam-e Sobghahi by Hossein Alizadeh, 7) Rang-e Qahr va Ashti by Faramarz Payvar. Zadbagher Seighlani *et al.* (2019) have reported that this intervention package has been reviewed by music experts and psychologists and has good content validity.

Table 1: Content of therapy sessions by traditional music

Row	Session	Targets	Content of sessions	Homework	Expected behavior
1	**First session(Passive music therapy)**	Explaining passive music therapy for the experimental group	*Completing research questionnaires *Presenting a set of selected music to the subjects and explaining how to use it	Asking the experimental group to listen to selected music 3 times a day (morning, evening, and night) for 30 min up to 15 consecutive days. Recording feelings after listening to music, mentioning the time and place of listening, and reporting it to the therapist.	*Communicating with music *Focusing on selected music * Creating a pleasant feeling in people *Creating an imaginary atmosphere to evoke memories *Outpouringof emotions
2	**Second session (passive music therapy)**	Receiving the submitted reports from each member of the experimental group	*Discussing the writings of each of the subjects after listening to Iranian traditional music *Answering the questions of each member of the experimental group	The experimental group was asked to listen to selected music 3 times a day (morning, evening, and night) for 30 min up to 15 consecutive days. Recording feelings after listening to music, mentioning the time and place of listening, and reporting it to the therapist.	*Focusing on selected music *Creating a pleasant feeling in people *Creating an imaginative atmosphere for remembering memories *Enhancing the outpouring of emotions
3	**First session (active music therapy) Asking the experimental group to listen to music at least 6 times in the first and second week**	Explaining active music therapy for the experimental group	*Discussing listening to traditional Iranian music *Focusing on music *Singing a song by heart(without listening to that song at that moment) *Focusing on music and having feedback from singing a song by heart (without listening to that song at that moment)	Listening to selected music 3 times a day (morning, evening, and night) for 30 min up to 15 consecutive days. Recording feelings after listening to music, mentioning the time and place of listening, and reporting to the therapist.	*Inducing a sense of calm *Maintaining coherence in remembering memories, wishes, regrets, past doubts, and expectations *Creating inner dance, vitality, and expression in a safe structure
4	**Second session (active music therapy) In the first and second**	Reviewing its effects on each of the subjects in the experimental	*Studying the effects of songs on the subjects *Asking questions	Listening to selected music 3 times a day (morning, evening,	*Inducing a sense of calm *Maintaining coherence in remembering

	week	group and the previous session	by the researchers How do you feel? What memory or memories did you remember? What is your experience?	and night) for 30 minutes to 15 consecutive days with concentration. Recording feelings after listening to music, mentioning the time and place of listening, and reporting to the therapist	memories, wishes, regrets, past doubts, and expectations *Creating inner dance, vitality, and expression in a safe structure *Creating excitement
5	**Third session (active music therapy) In the first and second week**	Evaluating individually the effects of music therapy on job performance and positive and negative emotions of the experimental group subjects	* Discussing the level of job performance and positive and negative emotion by asking questions from the job performance and positive and negative emotion questionnaire individually for each of the subjects in the experimental group * Completing questionnaires	Listening to selected music 3 times a day (morning, evening, and night) for 30 minutes to 15 consecutive days with concentration. Recording feelings after listening to music, mentioning the time and place of listening, and reporting it to your therapist.	* Induce a sense of calm * Maintaining coherence in remembering memories, wishes, regrets, past doubts, and expectations * Creating inner dance, vitality, and expression in a safe structure * Creating a sense of unity * Creating hope and enthusiasm
6	**Follow-up session after a month**	Evaluating the effects of music therapy on job performance and positive and negative emotions in the time before the sessions of the experimental group	* Discussing the level of job performance and positive and negative emotion by asking questions from the job performance and positive and negative emotion questionnaires individually for each of the subjects in the experimental group. * Completing research questionnaires	Writing the feelings at the end of each week by mentioning the date and finally delivering the writings to the therapist two months after the end of the music therapy.	* Creating a pleasant feeling in people * Inducing a sense of calm * Maintaining spiritual integrity while instilling a sense of vitality, love, and hope. an outpouring of emotions, inner dance, vitality, and expression in a safe structure * Creating an imaginative atmosphere for remembering memories, wishes, regrets, past glories, and expectations * Creating a sense of unity * Creating hope and enthusiasm

Findings

The experimental group included 18 male and 12 female employees. Also, 16 men and 14 women were in the control group. The mean age of participants in the experimental and control groups was 35.37 (standard deviation: 11.59) and 34.96 (standard deviation: 10.74), respectively. The mean time of employment of the male employees in the experimental group was 17.73 years and 15.61 years in the control group.

Table 2: Descriptive indicators of the studied variables

Groups	Variables	Subgroups	Stages	Average	The Standard Deviation
Experimental group	Job performance	woman	Pre-test	23	31/7
			Post-test	36	1/59
		man	Pre-test	21	1/74
			Post-test	38	1/50
	Positive emotion	woman	Pre-test	32	1/87
			Post-test	47	1/63
		man	Pre-test	29	1/25
			Post-test	44	1/38
	Negative emotion	woman	Pre-test	33	1/31
			Post-test	21	1/67
		man	Pre-test	36	0/95
			Post-test	24	1/04
Control group	Job performance	woman	Pre-test	24	1/28
			Post-test	21	1/67
		man	Pre-test	27	0/83
			Post-test	25	1/30
	Positive emotion	woman	Pre-test	33	1/32
			Post-test	35	0/98
		man	Pre-test	32	1/54
			Post-test	30	1/08
	Negative emotion	woman	Pre-test	35	1/43
			Post-test	31	1/73
		man	Pre-test	32	1/47
			Post-test	36	0/94

Table 2 presents the mean and standard deviation of the pre-test and post-test scores of the scales of the studied variables according to gender. The table also shows that the mean scores of the experimental group have changed compared to those of the control group in the post-test in men and women. One of the assumptions of the analysis of covariance is examining the similarity of variances in the studied groups, therefore, Levene's Test was used.

Table 3: The test of equality of variance of the study group in job performance scores and positive and negative emotions

Variables	Test	Value F	DF 1	DF 2	Significance level p
Job performance	pre- test	2/369	1	57	0/087
	Post-test	0/784	1	57	0/342
Positive and negative emotions	pre- test	1/308	1	57	0/126
	Post-test	2/311	1	57	0/066

Table 3 shows Levene's test for equality of variance of job performance scores and positive and negative emotions in the studied groups. The default assumption of the equality of variance in all stages of the job performance test, pre-test (P= 0.087, F= 2.369), and post-test (P= 0.342, F= 0.784), as well as those of the test of positive and negative emotion, pretest (P= 0.126, F= 1.308), and post-test (P= 0.066, F= 2.311) was confirmed due to the lack of significance and confirmation of the null hypothesis. In other words, the equality of the observed variances of the dependent variables is equal between the two groups. One of the assumptions of the analysis of covariance is examining the similarity of covariances in the study groups, therefore, the Mbox test was used.

Table 4: The test of equality of covariance of job performance scores and positive and negative emotions in study groups

Variables	Mbox test	F	DF 1	DF 2	Significance level p
Job performance	21/053	0/849	23	6548/615	0/473
Positive emotion and negative emotion	19/626	1/728	23	6548/615	0/179

Table 4 indicates the Mbox test for equalizing the covariance of job performance scores and positive and negative emotions in the study groups. The default assumption of the equality of covariance of job performance (P= 0.473, F= 0.849) and positive and negative emotion (P= 0.179, F= 1.728) was confirmed due to the lack of significance and confirmation of the null hypothesis. Therefore, the observed covariance corresponds to the dependent variables between the two equal groups.

Table 5: Summary of multivariate analysis of variance of the studied variables on two groups of men and women

Variables		Total squares	DF	Average of squares	F	Sig
Job performance	Women	6/732	1	6/732	4/28	0/001
	Men	5/933	1	5/933	4/43	0/001
Positive emotion	Women	7/533	1	7/533	3/78	0/001
	Men	5/600	1	5/600	3/38	0/001
Negative emotion	Women	6/400	1	6/400	2/91	0/001
	Men	7/600	1	7/600	2/61	0/001

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Discussion

The present study aimed to investigate the effectiveness of Iranian traditional music on job performance and the positive and negative emotions of employees by gender. The results of the first hypothesis indicated that the traditional music therapy package affects the job performance of men and women. The results of this study are consistent with those of Teich (14) stating that music therapy has increased awareness and relaxation and reduced work stress of employees in the workplace. It is also almost consistent with Gayle's study (15) which concluded that music therapy improves teamwork and individual growth in job performance.

Music therapy means the use of music and tuned music programs to physically and mentally rehabilitate individuals and patients (20). There are two basic methods in music therapy: active and passive. The passive method treats the disease by listening to music being played (21). This method greatly provokes and influences emotional and mental reactions. While playing, singing, and rhythmic movements are the basis of active music therapy. Various emotional, mental, physical, and motor reactions are stimulated (22). Music therapy includes emotional, cognitive, and behavioral components (23). Cognitive components focus on an individual's interpretation of a known environmental stressor, and related emotional components focus on the interpretation of that situation. The behavioral components of these interventions are oriented towards improving individual performance and increasing awareness of the situation associated with relaxation (24). Therefore, music therapy has affected and improved the job performance of employees according to these three main components in this study. The results of another hypothesis in this study stated that the traditional music therapy package affects positive and negative emotions. The results of this study are consistent with those of Gayle (15) who revealed that music therapy improves teamwork and individual growth in job performance. It is almost consistent with the study of Anwar *et al.* (13) which concluded that fast-paced music causes strong emotions and more excitement in customers.

Music therapy diverts attention from the negative emotion of the work environment to other aspects as the attention-grabbing techniques in cognitive-behavioral therapy. Music increases attention to internal perceptions and reduces focus on negative environmental stimuli. Therefore, music can reduce negative emotions by using attention-grabbing techniques and releasing endorphins (25). Music therapy increases positive in participants in the intervention phase, therefore, music acts as a pain reliever factor by reducing the level of hormones and controlling cognitive and behavioral changes which may remain for a time after the music stops.

Conclusion

Findings of the present study indicated that Iranian traditional music positively affects job performance and positive and negative emotions of employees in terms of gender. The limitations of the study are standard questionnaires and a protocol or music-therapy package as well as the sampling method that was performed on a specific company which complicates the generalization of the results. Therefore, other psychological questionnaires are recommended to be used in different organizations, and/or examine the sustainability effect of such studies in future studies.

Compliance with Ethical Guidelines

The present study was approved by the Ethics Committee of the Islamic Azad University, Roodehen Branch, Roodehen, Iran (IR.IAU.R.REC.1400.018).

Asa Bam Company who participated in the present study.

Conflict of Interest

The authors declare that there is no conflict of interest regarding the authorship and publication of the present study.

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Participants Consent

Written consent was obtained from all participants.

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