



## The Effect of Creative Drama Training on Empathy Levels of Dietitians: A Pilot Study

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### Abstract

**Objective:** To examine the effect of creative drama training on empathy levels of dietitians.

**Design:** Quasi-experimental

**Setting:** Baskent University Department of Nutrition and Dietetics, Turkey

**Participants:** 16 female subjects who worked as dietitians and were doing graduate studies in Nutrition and Dietetics program.

**Interventions:** The study was carried out in a single group with three applications including before, after, and 4 months after a drama training intervention.

**Analysis:** The variance test, the general linear model (Pillai's Trace Multivariate F Test) and Pearson's Correlation Analysis was employed.

**Results:** The empathic skill and empathic tendency scale scores of the dietitians obtained at the end of the creative drama training (9th week) and 4 months after the training were determined to increase compared to the scores obtained at the outset ( $p < 0.05$ ). The highest mean score was observed at the end of the drama training, which was found to create the difference (9th week). The negative relationship between the empathy scores obtained before the drama training and the working years and age of the dietitians were found to be positive 4 months after the training.

**Conclusions and Implications:** The creative drama method is lead to positive changes in the empathic behaviors of the dietitians and it will provide considerable benefits in terms of patient-dietitian communication.

**Keywords:** Creative Drama; Empathic Skill; Empathic Tendency; Dietitian; Healthcare Professionals

### Introduction

The empathic approach is known to improve the quality of interaction in all business environments and to ensure more effective service delivery [1]. Empathy, which is an important element of communication and stated as understanding others' experiences, is defined as a multi-factor psychological structure with cognitive and emotional dimensions [2]. Although research into empathy has produced different results, current systematic studies show empathy has positive effects similar to pharmacological treatments [3-5].

Since communicating with patients is among the usual practice of healthcare professionals, the ability to be empathetic is of great significance in healthcare professional-patient communication [6]. A successful clinical interview between the patient and healthcare professionals includes the skills of listening to, understanding, and giving feedback to the patient [7]. Accordingly, clinical empathy is defined as the capacity of the communication skills of an individual with their self-specific characteristics (perspective, opinion, idea, emotion, etc.) that can help others [8]. Therefore, being empathetic, which covers all of the skills, is accepted as the main element of

patient-centered communication [9]. Researchers emphasize that the lack of empathy in healthcare professionals affects the treatment process and patient outcome negatively [6-9].

Although empathy in the field of healthcare is an important factor facilitating all relationships, healthcare professionals may be empathetic below expectations [3,9,10]. On the other hand, there is limited research into training programs that encourage the development of empathic approaches of health professionals during their education and working life [5,11]. Although there are more studies examining the role of empathy in patient-health personnel relationships especially in the fields of medicine, nursing, and psychology, studies investigating the communication skills of dietitians are inadequate [3,12].

While dietitians are providing healthcare to their patients, they are often in contact with their patients. Effective nutritional counseling is provided by establishing a trust-based relationship between the dietitian and the patient, in addition to a quality nutritional knowledge for the success of diet therapy. By adopting an empathetic approach, the dietitian listens to the patient, understands their wishes and expectations, and provides the expected outcomes from nutritional counseling [9,13].

Empathy, which is the word to focus on at this point, has been studied in many areas, including especially in the field of psychology, several definitions of the concept have appeared, and theories about it have been written; nevertheless, related applications still pose a problem for people [14]. Therefore, studies have recently approached the topic of empathy with drama, which is a new perspective, and aimed to develop empathy theoretically and practically with Creative Drama (CD) methods [15,16]. The games and improvisations played in drama applications encourage the development of empathy skills by allowing the participants to see the events from the perspective of other people [16,17]. CD applications, which allow different roles to be experienced in a safe environment, offer participants the opportunity to discover their own vulnerabilities [18]. Studies carried out on this topic indicate that CD contributes to the individual and social development of individuals in many different aspects such as communication, self-expression, creative and critical thinking, problem-solving, collaboration, self-knowledge and understanding, sharing, sensitivity, empathy, and aesthetic imagination [17,19]. Therefore, CD techniques are widely applied in many different educational fields and clinical settings [16-19].

The effects of CD practices on the empathy skills of nurses, doctors, and psychologists have been studied in many studies, and highly valuable and positive results have been reported. However,

there are almost no studies involving especially dietitians and other healthcare professionals. Therefore, this pilot study was planned and conducted to examine the effect of creative drama training on empathy levels of working dietitians.

## Methods

This study, which evaluated the effect of creative drama training on the empathy levels of dietitians, used a quasi-experimental research design. The study was carried out in a single group in three steps including before, after (9<sup>th</sup> week), and a4 months after the drama training. All creative drama techniques were used for a total of 9 weeks (18 hours) including 2 hours every week during the study.

This study was carried out under the course objectives of the "Nutrition and Dietetics Education and Counseling" and "Basic Principles of Nutrition Education" courses taught in the Nutrition and Dietetics graduate education program of a university. Accordingly, 16 female dietitians who had not received any training on communication and empathy skills during all their education life and were working in the clinic and outpatient clinic participated in the study voluntarily. The study protocol was approved by the Research Ethics Committee of [Blinded] University (protocol number KA14/363)

The questionnaire used in the study consists of three parts. The first part aims to collect information about participants' age, marital status, working years, and current institution and department. The second and third parts include the "Empathic Tendency Scale" and the "Empathic Skill Scale", respectively. The information form and scales were filled out by the participants themselves.

- **The Empathic Tendency Scale (ETS):** It was developed and tested for validity and reliability by Dokmen [20]. It measures the potential of individuals to show empathy in daily life. ETS is a Likert-type scale consisting of 20 items. Each item is given scores ranging from 1 to 5. The minimum and maximum scores that can be obtained from the scale are 20 and 100, respectively. The total score represents the empathic tendency scores of the subjects. High scores show increased empathic tendencies.
- **The Empathic Skill Scale (ESS):** ESS is another scale developed and tested for validity-reliability by Dokmen [20]. It consists of 6 separate texts describing different problems about daily life and 12 one-sentence statements as responses to the owner of the problem for each problem. The written form of a total of 72 responses, including 12 responses for each of these six problems, is presented to the participants. The 6 problems are about a housewife, a friend,

a close friend, a young person, a girlfriend, and a student. Each option is scored between 1 and 10. The lowest and the highest total scale scores can be 62 and 219, respectively. High scores show high empathy skills.

- **Creative Drama (CD):** This training program was prepared by a dietitian and a drama leader, and CD workshop applications were conducted by a drama leader (Table 1). Before initiating the study, the personal information questionnaire, ETS, and ESS were administered to the participants (1<sup>st</sup> ap-

plication). CD was carried out for 9 weeks, with an average of 120 minutes per session. At the end of the CD applications (week 9), the measurement tools were re-administered and the findings were evaluated to determine whether there was a significant difference in the empathy levels of the participants (2<sup>nd</sup> application). ETS and EES were re-administered 4 months after the completion of the CD application to evaluate the effectiveness of the training (3<sup>rd</sup> application).

Week 1	Creative Drama Training: Introduction – Warm-up	Introduction to the course- warm-up activities Raising awareness of the field of the participants Raising awareness of the characteristics of a good dietitian
Week 2	Creative Drama Training: Warm-up - Interaction	Improvisation, role-playing, and improving empathy feelings
Week 3	Creative Drama Training: Perception and Emotions	Helping the participants to do a self-questioning through the drama activities that increase empathy while emphasizing the concept of a “Good Dietitian”
Week 4	Creative Drama Training: Adaptation Activities	Understanding and using body language in communication
Week 5	Creative Drama Training: Establishing Confidence	Empathy-based drama activities on how dietitians can arrange their workplace appropriately
Week 6	Creative Drama Training: Games and Creative Drama	Activities for raising empathy among dietitians for obesity Activities for establishing empathy for the experiences of individuals with obesity
Week 7	Creative Drama Training: Role-Playing and Improvisation	Employing body language and empathy for dietitians to communicate appropriately in their professional life
Week 8	Creative Drama Training: Role-Playing and Improvisation	Drama activities to improve empathy in dietitians
Week 9	Creative Drama Training: General Evaluation	Evaluation of the whole course process (18 hours) by the participants-Self-evaluation

**Table 1:** Drama Workshop Plan.

Descriptive statistics were presented based on the quantitative nature of the data collected in the study. Quantitative variables were expressed as minimum, maximum, mean, and standard deviation values. The normality of the distribution of quantitative data was evaluated by the Shapiro-Wilk test. Since the data met the sphericity assumption, the repeated measures analysis of variance test, the general linear model, (Pillai’s Trace Multivariate F Test) was employed to compare the empathic tendencies and skills of dietitians before, after, and 4 months after the drama training. The Bonferroni adjusted for multiple comparisons test was employed to find the period that created the difference in cases where the difference between the three phases was found statistically significant.

Also, the correlation coefficient and statistical significance between two quantitative variables were calculated by using Pear-

son’s Correlation Analysis due to the normal distribution of the data. All statistical hypothesis tests were analyzed with SPSS version 22.0 statistical software package. P < 0.05 was considered statistically significant.

**Results**

Table 2 gives the mean age and working years of the dietitians who participated in the study. Accordingly, the mean age of the dietitians was 31.4 ± 4.2 years, and the mean working years was 8.3 ± 5.1 years, with a minimum of 2 and a maximum of 20 years.

The relationship between mean ETS and ESS scores of dietitians obtained before, after, and 4 months after the CD workshops are shown in table 3. The mean ETS and ESS scores of the dietitians participating in the study before the CD workshops were 73.68 ±

Age and working years	n	± SS	Lower-Upper Values
Age (years)	16	31.37 ± 4.16	26.0-41.0
Working years	16	8.31 ± 5.10	2.0-20.0

**Table 2:** Mean age and working years of dietitians.

Empathy Scales	Mean Score			F	p
	Terms				
	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>		
Empathic Tendency Scale (ETS)	73.68 ± 5.59 <sup>a,c</sup>	74.62 ± 5.11 <sup>a,b</sup>	77.06 ± 3.71 <sup>b,c</sup>	9.162	P < 0.05
Empathic Skill Scale (ESS)	142.25 ± 28.12 <sup>a,c</sup>	134.25 ± 27.72 <sup>a,b</sup>	158.56 ± 24.54 <sup>b,c</sup>	6.043	p < 0.05

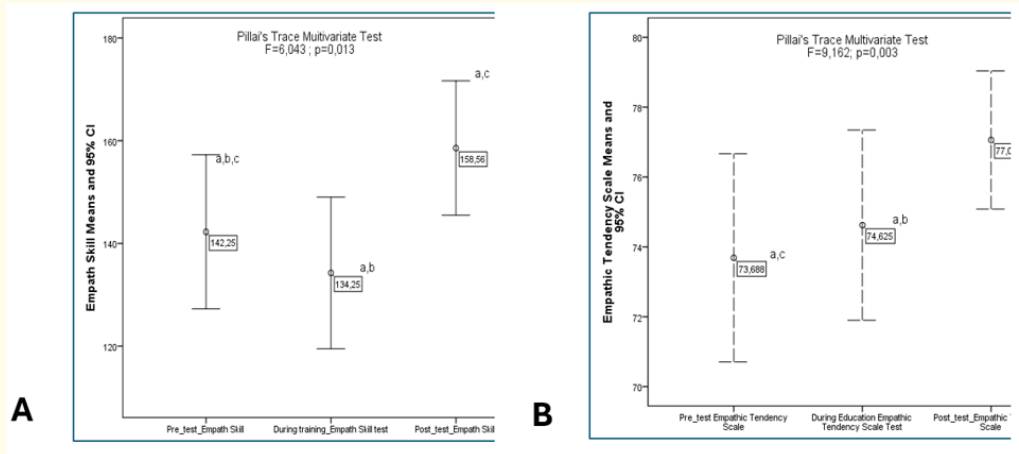
**Table 3:** Mean ETS and ESS scores obtained before, after, and 4 months after the creative drama training.

\*a,c; a,b; b,c: p < 0.05.

5.59 and 142.25 ± 28.12, respectively. At the end of the CD workshops, the mean ETS score increased to 74.62 ± 5.11; however, a slight decrease was observed in the ESS score with a mean score of 134.25 ± 27.72. On the other hand, the mean ETS and ESS scores obtained 4 months after the completion of CD workshops were determined to increase to 77.06 ± 3.71 and 158.56 ± 24.54, respectively. Accordingly, the difference between the mean ETS and ESS scores of dietitians obtained before, after, 4 months after the CD workshops were found to be statistically significant (p < 0.05).

6.043, p = 0.013). Although there was a small decrease at the end of the CD workshops, the difference between the mean initial and final scores was found to create a statistically significant difference. After the CD workshops, the mean empathic skill scores of the dietitians were determined to increase by about 16 points. Similarly, the mean empathic tendencies scores also showed a gradual increase trend, and this difference between the periods was found statistically significant (F = 9.162, p = 0.003). The period that created the difference and yielded the highest mean score was the period after the CD workshops (Figure 1).

The mean empathic skill scores of the dietitians obtained after the CD workshops showed statistically significant differences (F =



**Figure 1:** Mean changes in the empathic skill and tendency scores of the dietitians before, after, and 4 months after the creative drama training.

Also, a negative but weak correlation was found between the mean ETS scores of the dietitians obtained before and after CD workshops and their age ( $r = -0.349$ ;  $p = 0.185$ ). Also, there was a weak positive correlation between dietitians' mean ETS scores obtained 4 months after the CD workshops and their age ( $r = 0.102$ ;  $p$

$= 0.256$ ). When the relationship between dietitians' working years and mean ETS scores was examined, first, a weak negative correlation was found ( $r = -0.067$ ,  $p = 0.806$ ), but this correlation was determined to be positive 4 months after the CD workshops; yet, it was not statistically significant ( $r = 0.109$ ;  $p = 0.729$ ), (Table 4).

Scale scores of dietitians	The Correlation of Coefficient (r)			
	Age (n:16)		Working years (n:16)	
Empathic Tendency Scale Scores	r	p	r	p
Empathic Tendency1	-0.349	0.185	-0.067	0.806
Empathic Tendency2	-0.129	0.634	0.131	0.628
Empathic Tendency3	0.102	0.256	0.109	0.729
Empathic Skill Scale Scores				
Empathic Skill 1	-0.062	0.819	0.184	0.287
Empathic Skill 2	-0.009	0.974	0.256	0.837
Empathic Skill 3	0.045	0.869	0.324	0.220

**Table 4.** The relationship between the ESS and ETS scores of dietitians and their ages and working years.

\*Pearson's Correlation Analysis,  $p > 0.05$ .

Similarly, a negative but weak correlation was found between the mean ESS scores and ages of the dietitians before and after the CD workshops ( $r = -0.062$ ;  $p = 0.819$ ). On the other hand, there was a positive correlation between the mean ESS scores of dietitians obtained 4 months after the CD training and their ages, but it was not statistically significant ( $r = 0.045$ ;  $p = 0.869$ ).

**Discussion**

Strong relationships have been shown between accurate clinical assessment, better therapeutic compliance, and higher patient satisfaction, and empathy skills of healthcare providers [10,12]. In particular, adequate empathic skills and patient-centered approaches are associated with increased patient satisfaction and well-being [7].

Although there are many studies on the empathy level of healthcare professionals in the literature, there are very few studies on the empathy levels of dietitians, which is an important branch of healthcare services [11]. Unlike the trend in the literature, Yildiz [14] and Yang [13] examined the empathic levels of working dietitians. Yang [13] used the Toronto Empathy Questionnaire to evaluate the empathy levels of dietitians working in Malaysia and reported that female dietitians had higher mean scores than those reported by similar studies. Yıldız [14], on the other hand, determined the mean ESS score of female dietitians as  $135.4 \pm 27.0$  and their mean ETS score as  $74.1 \pm 7.1$ .

In this study, the mean empathic skill score of the dietitians was  $142.2 \pm 28.12$  and their mean empathic tendency score was  $73.68 \pm 5.59$ . These scores were observed to be higher than those of other studies. In some studies investigating the correlation between clinical empathy and advancing grade levels and working years, clinical empathy was determined to decrease in time. Some studies showed that it did not change. However, others claimed that it increased [6,11,21]. This situation, which is especially evident in the field of medicine, is thought to be the result of the contact of students with clinical reality due to long time exposure to clinical practices [22].

In the study conducted by Yildiz [14], the ESS scores were determined to increase as the length of working years of dietitians increased ( $p < 0.05$ ). Similarly, Yang<sup>13</sup>found the mean empathy scores of dietitians who had been working for 20 years or longer was higher than those of the participants with less than 20 years of work experience and reported that this finding was consistent with the evidence in the literature showing longer work experience had a positive effect on empathy levels. Similar to previous studies, although it was not statistically significant, there was a positive relationship between dietitians' working years and especially empathic skills in this study.

Research generally shows the empathy levels of healthcare professionals may be below expectations [5,9,22]. For this reason,

studies highlight the importance of educational interventions and strategies to be used in these interventions to help healthcare professionals develop and increase their empathy skills during their school years or their professional life [23,24].

There are similarities between acting on stage and performing professional roles, and especially drama is used as an interesting metaphor to explain the dynamics of social interaction [26]. On the other hand, artistic teaching methods such as Creative Drama (CD) are used in experiential learning to improve learning [27].

By inviting the participants to take on the role of someone else in a safe environment with the drama techniques used in health programs, they were given an opportunity to examine various social roles and social problems, and this helped integrate theoretical background into practice [28,29]. Studies especially on this subject show the empathy levels of individuals have been increased by the CD method [30,31].

Although there were a few studies aiming to determine the relationship between dietary compliance and behavioral changes of patients and the empathy levels of dietitians, there were no studies conducted to increase the empathy levels of dietitians. In this study, the empathy levels of dietitians who were working and doing graduate studies were analyzed with the creative drama method, and results, consistent with the literature, were obtained. Accordingly, the ETS and ESS scores of the dietitians were determined to increase after CD training compared to those obtained before the training ( $p < 0.05$ ). Also, in this study, the fact that ETS and ESS scores were found to be higher 4 months after drama training compared to other applications showed that dietitians focused on questioning and problem solving after the training, they looked at the daily work environment more differently and that they were applying what they had already learned.

## Conclusion

In conclusion, positive changes were determined in the empathetic behaviors of dietitians through the creative drama method. For this reason, integration of creative drama method into the school curriculum and in-service training programs of dietitians during working years will provide great benefits in terms of patient-dietitian communication. This study had some limitations. These included the limited literature especially in this area, the physical conditions of the place where the drama activities were conducted, and the sample size. Therefore, more large-scale studies should be conducted on this subject in the future.

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