

## THE EFFECT OF CREATIVE DRAMA ON EMPATHIC TENDENCIES, COMMUNICATION SKILLS AND CRITICAL THINKING OF PHYSIOTHERAPY STUDENTS

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**Abstract:** The empathic tendency, communication skills, and critical thinking are the professional attitude behaviors that should be in a physiotherapist. The study was planned to investigate the effects of creative drama on empathic tendencies, communication skills and critical thinking of physiotherapy students. This study was carried out in Hasan Kalyoncu University, Faculty of Health Sciences, Department of Physiotherapy and Rehabilitation between October 2017 and December 2018. 75 freshman physiotherapy students (44 women, 31 men) were included in the study. According to the results obtained from the study; there was no significant difference between empathic tendencies, communication skills and critical thinking skills of individuals in both groups ( $p > 0.05$ ). When the creative drama group was compared in terms of gender, there was no significant difference between individuals' empathic tendencies, communication skills and critical thinking skills ( $p > 0.05$ ). Similarly, when the control group was compared in terms of gender, there was no significant difference between individuals' empathic tendencies, communication skills and critical thinking skills ( $p > 0.05$ ). We think that this study is a preliminary study on empathic tendencies, communication skills, and critical thinking skills of physiotherapy students. Parameters such as gender, different years of education, and welfare levels can affect empathic tendency, communication skills, and critical thinking skills. There are limited studies in the literature investigating the effectiveness of creative drama in the field of health. Therefore, this work can give an idea for subsequent studies. The studies that are conducted with more patients and which are multi-centered should be done.

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### Introduction

Physiotherapy education includes basic medical sciences such as physics, chemistry, biology, statistics, anatomy, physiology, as well as a number of characteristic professional skills (Lake, 2003). There are two important components of professional physiotherapy education, theoretical and practical. These components are intended to provide the student with the physical, biological and behavioral knowledge, attitudes and skills which are necessary for physical therapy applications in the classroom and laboratory. Ideal physiotherapy education should help students think differently, explain the different social concepts and values (APTA 2013).

In the paper by May et al. (1995) it is stated that the professional attitude-behavior which should be present in a physiotherapist is reliability, initiative, empathy, cooperation, communication skills, critical thinking, taking responsibility and clinical decision-making.

### Empathy

Empathy is considered to be the most important component of health services in terms of patient relationships (Fields, 2011; Dal Santo, 2014). There are many definitions of empathy in literature. It is defined as a multidimensional concept that is cognitively or emotionally based in some articles, while also being defined as a combination of both concepts in recent years. (Fields 2004, Hojat 2003).

In the literature, it has been stated that an empathic attitude helps reduce the stress and anxiety of patients, resulting in better adaptation to treatment and better prognosis (Fields, 2013; Hojat, 2011; Hojat, 2013; DiMatteo, 1993).

### Creative drama

Creative drama is a method that can be used in many areas. There are many drama studies from basic lessons in history, geography, mathematics, psychology to areas such as economics, politics, industry, and human relations (Fulford et al., 2001; Levent, 1999). While creative drama activities were initially

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applied to individuals at pre-school or primary school levels, it is now applied at the undergraduate and graduate level. These activities are applied not only for educational purposes but also in many areas such as social skills and personal development etc. (Köksal, 2003). In particular, creative drama activities help individuals to think multidimensionally and to improve their ability to express themselves (Strenberg, 1998).

### Objectives

In the literature, it is stated that creative drama is effective in the development of social skills (Sullivan and Fulton, 2003). Kahriman et al. (2016) stated that drama based activities affected the empathic tendencies of nurses. However, there are no studies which investigated empathic tendencies, communication skills of critical thinking of physiotherapy students and the effects of creative drama on these. Therefore, this study was planned to investigate the effect of creative drama on empathic tendencies, communication skills and critical thinking of physiotherapy students.

### Material and Method

This study was carried out in Hasan Kalyoncu University, Faculty of Health Sciences, Department of Physiotherapy and Rehabilitation between October 2017 and December 2018.

75 freshman physiotherapy students (44 women, 31 men) were included in the study. The inclusion criteria were:

- Freshman physiotherapy students at Hasan Kalyoncu University
- Academic grade point average (GPA) between 2.5 and 4.00
- Volunteer for the study.

The exclusion criteria were:

- Not being a freshman physiotherapy student
- Being from another university
- Being undergraduate transfer or external transfer students

Participants were divided into two groups: the creative drama group (40 individuals) and the control group (35 individuals). The students from the creative drama group participated in creative drama activities for 4 hours a week for a total of 14 weeks. These activities consist of **Preparation-Warm-up, Acting Out, Evaluation-Discussion** (Table 1). An “Empathic Tendency Scale (ETS)” was used (Dökmen, Ü., 1988) to measure the potential of empathy, A “Communication Skills Scale (CSS)” was used to measure communication skills and a California Critical Thinking Disposition Inventory (CCTDI) was used to measure critical thinking for all individuals who participated in the study (Korkut and Bugay, 2014) (Table 2).

Stages of creative drama activity	Purpose and Content
<b>Preparation-Warm-up</b>	This stage is aimed to increase the willingness and focus of the group. To warm up the participants up and relax them with games and drama. Music and rhythm accompanied by preparation, running, jumping, dancing. Various game activities are also used at this stage.
<b>Acting Out</b>	This stage is aimed to increase the ability of group members to create new situations through improvisation, to express oneself, to think creatively by group members, to increase their empathy and communication skills, to develop their ability to animate and to increase critical thinking. In addition, this stage includes: choosing games that affect the groups' ability to form groups, distribute roles, behaviors, and attitudes.
<b>Evaluation-Discussion</b>	At this stage, the results obtained in the drama study are evaluated. The essence, importance, quality, and quantity of the drama process are determined at this stage. Generally, it is aimed to make discussions on educational gains or occurrences. Questions, such as, “What have you experienced?”, “What did you feel?”, “Where did you have difficulty?”, are part of the evaluation

Source: Authors

### Ethics Approval and Consent to Participate

Ethical approval was obtained from Hasan Kalyoncu University, Faculty of Health Sciences Ethics Committee. Patients were informed of the nature of the study and a consent form was signed. Patients were made aware of their right to terminate their participation at any time.

<b>Empathic Tendencies Scale (ETS)</b>	The scale, which was prepared in order to measure the emotional sensitivity of the individual in relation to the events, was developed by Dökmen (1989). The scale consists of a total of 20 items and is graded as a 5-stage Likert type according to "completely appropriate" or "completely inappropriate". The highest score is 100 and the lowest score is 20.
<b>Communication Skills Scale (CSS)</b>	A 5-point Likert-type scale developed by Korkut (1996) and graded from "always" to "never" in order to understand how individuals evaluate their communication skills. The scale consists of 25 explanations. The excessive score reflects that individuals' communication skills are positively evaluated.
<b>California Critical Thinking Disposition Inventory (CCTDI)</b>	This scale has 7 subscales and consists of 75 questions. The California Critical Thinking Scale (CCTDI) is known to have emerged in 1990 as a result of the Delphi project organized by the American Philosophical Society. The standardization study of the CCTDI was performed by Kökdemir (2003). The scale, which adapted, consist of 51 questinos and 6 subscales The highest total score is 306 points in this scale. According to this scale, having less than 240 scores is defined as low critical thinking disposition, having a score between 240 and 300 is defined as medium critical thinking disposition and having more than 300 scores is defined as high critical thinking disposition.

Source: Authors

### Statistical Analysis

The statistical software of Statistical Product and Service Solutions 22.0 (SPSS) for Windows was used for analysis. A value of  $p < 0.05$  was considered statistically significant.

Variables which are determined by numerical measurements were expressed as arithmetic averages and standard deviations ( $X \pm SD$ ) for descriptive analyses. A Mann Whitney test was used because the data didn't show a normal distribution.

### Results

A total of 75 students, 44 females and 31 males, participated in the study. The ages of the participants ranged from 18 to 21 years old (table 3).

	<b>Creative Drama Group</b> N=10	<b>Control Group</b>
<b>Age (years) (<math>X \pm SD</math>)</b> (Min-Max)	19.8 $\pm$ 1.08 18-21	19.7 $\pm$ 0.8 18-21
<b>Sex n(%)</b>		
Female	15(37.5)	16(45.7)
Male	25(62.5)	19(54.3)

Source: Author

According to the results obtained from the study; there was no significant difference between empathic tendencies, communication skills and critical thinking skills of individuals in both groups ( $p > 0.05$ ).

	<b>Control Group</b> N=35				<b>Creative Drama Group</b> N=40				<b>Z</b>	<b>p</b>
	<b>Mean</b>	<b>SD</b>	<b>MIN</b>	<b>MAKS</b>	<b>Mean</b>	<b>SD</b>	<b>MIN</b>	<b>MAKS</b>		
<b>ETS</b>	67.11	9.17	45	83	66.38	7.36	50	89	-0.787	0.431*
<b>CSS</b>	105.92	10.85	85	125	104.23	11.28	75	122	-0.239	0.811*
<b>CCTDI</b>	200.44	19.17	173	245	196.10	22.11	132	235	-0.594	0.552*

\*  $p > 0.05$

Source: Author

When the creative drama group was compared in terms of gender, there was no significant difference between individuals' empathic tendencies, communication skills and critical thinking skills ( $p > 0.05$ ). When the control group was compared in terms of gender, there was no significant difference between individuals' empathic tendencies, communication skills and critical thinking skills ( $p > 0.05$ ).

Table 5: Comparison of groups in terms of gender

	Creative Drama Group N=40				Z	p
	Mean	SD	MIN	MAKS		
ETS	69.15	8.69	45	83	-1.930	0.054*
CSS	108.30	11.59	86	125	-1.546	0.122*
CCTDI	197.30	16.55	173	242	-0.924	0.356*
	Control Group N=35				Z	p
	Mean	SD	MIN	MAKS		
ETS	64.56	9.38	47	82	-1.203	0.229*
CSS	102.94	9.36	85	118	-0.145	0.885*
CCTDI	204.38	21.92	177	245	-0.549	0.583*

\*  $p > 0.05$

Source: Author

## Discussion

In the study investigating the effectiveness of creative drama on the empathic tendency, communication skills, and critical thinking skills, no significant difference was observed in the groups participating in the 14-week creative drama activity and individuals in the control group. Uzunöz et al. (2017) stated that drama activities were effective on 4-year undergraduate teachers in the study that investigated the effectiveness of creative drama in the teacher's critical thinking skills. In addition, Giancarlo et al. (2001) stated that individuals who have a 4-year undergraduate education, increased their critical thinking tendencies. We believe that the individuals who participate in our study have low critical thinking skills because they are 1st-year students and they are at the beginning of their 4 years of undergraduate education.

Özçakır et al. (2016) reported that the welfare level influenced the empathic tendency in the study with which they investigated the relationship between the empathic tendencies of medical students and their welfare levels. In our study welfare levels were not compared in both groups. We think that there may be a difference in welfare levels, especially if there is no difference between the groups.

Sarmiento et al. (2017) found that psychology-based empathy training was effective on the empathic tendency in empathic tendencies of empathy education in nursing students. In our study general creative drama activities were used. We believe that the addition of special psychology-based activities to physiotherapy students may affect our work positively.

Freeman et al. (2010) stated that they could not find a significant difference in the study of the effects of creative drama on solving social problems. They stated that inter-group interactions and variables could reduce the impact of creative drama and these activities should continue for a long time, not for a period. In our study, we think that the 14-week creative drama activity may not be a sufficient enough period of time and this activity should continue throughout the entire undergraduate education.

Gupta et al. (2016) stated that parameters such as empathy and sensitivity would increase the quality of health. Throughout the undergraduate education, we believe that giving creative drama, empathy, communication and critical thinking training to all physiotherapy students may increase the quality of their health.

Chatterjee et al. (2017), in a study investigating clinical empathy in medicine, stated that women had a better empathic tendency than men. Over the years, a significant decrease in the empathic tendency of men, especially after 7th period can be seen. In our study, no difference was observed between the genders. We think that only the evaluation of freshman physiotherapy students is effective in not being found any different. We believe that differences between genders may be more meaningful in studies conducted with larger groups with different classes.

Jeong et al. (2017) investigated the effects of communication skills on nurses' performances and stated that the performance of nurses with good communication skills was better. In our study, there was no significant difference between the communication skills between the groups. However, we believe that various programs should be added to the physiotherapy education curriculum in order to improve students' communication skills.

### Conclusion

We believe that this study is a preliminary study on first-year physiotherapy students' empathic tendencies, communication skills and critical thinking skills. Particularly in the field of health, such studies are very few, therefore our study can give an idea for subsequent studies.

During the whole undergraduate education, students who have received creative drama training can improve performance.

Therefore, the evaluation of empathic tendency, communication skills, and critical thinking skills in different types of universities (government, foundation, etc.) and the evaluation of students in different cities can improve performance.

The empathic tendency, communication skills, and critical thinking skills can affect parameters such as gender, different years of education, and welfare levels. Therefore, studies that are conducted with more patients and are multi-centered should be done.

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