

# Use of Creative Activities in Physiotherapy and Rehabilitation

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## ABSTRACT

**Objective:** A survey was performed to study the use of creativity in the field of physiotherapy and rehabilitation. There has been little research on this topic in Turkey and only a few studies are reported to have used music therapy for children. Therefore, the present study aimed to perform a similar survey as conducted in Sweden.

**Methods:** In this study, we sent a survey to physiotherapists in İstanbul via email. Recorded data included sociodemographic characteristics (gender, age, and education) of the physiotherapists; where and how long they had been working; the specialties of the physicians that they work with; whether they continued training/education after graduation, and if so how did they maintain their studies; whether/how often they involve creative activities in the treatment sessions; which activities they prefer; whether they get any negative reaction from patients or colleagues while applying the creative activities; and whether they apply any treatment method other than conventional methods.

**Results:** According to the results of the study, 59% of the physiotherapists benefit from using creative activities during their sessions. While 21% of them use handcrafts, 19% make use of computer games, 8% take advantage of music/theater activities, 6% use exercise painting, and 2% use practice gardening.

**Conclusion:** There has been no previous study on this topic in Turkey, this study provides insight into existing practices and may encourage further use of creative methods in therapy. Further studies should expand on the experience of physiotherapists concerning the benefits of creative activities.

**Keywords:** Creativity, creative activities, physiotherapy and rehabilitation

## INTRODUCTION

Creativity is a term used in various fields with broad meanings. Many theoreticians and researchers who are interested in the issue have generally defined creativity in similar ways. Creativity refers to the generation of new and valuable ideas in any field. A similar definition phrases creativity as producing and conceptualizing new and useful ideas, processes, and procedures developed either through individual effort or teamwork. The most commonly accepted definition of creativity suggests it to be a phenomenon through which new and valuable ideas are generated (1, 2).

Creativity is one's ability to see, shape, and arrange the world in a unique way. In other words, it is a process where an unprecedented synthesis is formed through a combination of independent ideas. According to the common idea stated in many recent studies, creativity involves some personality traits, such as the ability to follow a distinctive pattern in a new and unusual implementation process, to think outside the box, to see aspects that cannot be seen by others regarding the correlation of ideas, to be open to new ideas, and to never hesitate to try new ways. Newell and Simon argued that creativity is a particular kind of problem solving process. Creativity may be considered both as

a process and as a unique outcome generated at the end of a process. Creativity is regarded as valuable and significant to the extent that it gives rise to ideas having the potential to create applicable and innovative solutions (3).

Creative activity in a therapeutic sense is "the art of enhancing the performance while regulating and strengthening the function in selected works in order to reduce the patient's pathology, maintain health, and ensure the adaptability and efficiency"(4). The term "creative therapy" is in this form used for "therapeutic classification services in medical rehabilitation." Creative therapies include:

- Arts and crafts therapy,
- Music therapy,
- Exercise and physical therapy (5).

Creative activities were used for the first time by nurses and psychiatrists as a part of rehabilitation during the psychotherapy process of helping wounded soldiers in World War I. Creative activities have shown a positive influence on the mental and physical health of healthcare professionals as well as members of society. Offering creative art practices, such as music or painting as

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part of nursing care promotes the quality of the care. Therefore, creative activities are recommended to be employed within the scope of nursing care (6). Creative activities may be considered as an effective tool in each stage of psychiatric treatment, namely protective, therapeutic, or rehabilitative treatment (7). In case of attempts to build social skills, patients are recommended to be assigned artistic and sporting activities designed specifically in line with their needs and interests. Such activities are regarded as substantial for strengthening patients and revealing their capabilities. Additionally, creative methods are exercised for adaptation to social life and planning and implementation of adaptation activities according to cultural characteristics. It has also been stated that healthcare professionals should apply their creativity to draw patients into treatment and ensure their therapeutic collaboration (2). For this reason, therapists not only reveal their creativity but also enhance their clients' creativity during psychotherapy.

Although therapists benefit from creative arts activities, there are only a limited number of research studies regarding this issue. Published studies have emphasized the potential contribution of creative activities for treatment and have suggested conducting similar studies on the issue (8). Despite methodological weaknesses and limitations of most of the relevant studies, there is consistency among the findings. The common conclusion from the studies suggests that creative activities positively affect behavioral changes, self-confidence, self-esteem, knowledge, and the physical activity level of the participants. Even though the studies generally present weak evidence to support these arguments, there are some cases proving that creative therapy may be a useful method for improving the knowledge and positive behavior of children and teenagers when applied as part of the treatment strategy (9, 10).

Ergotherapy (Occupational Therapy), which dates back to 100 years, has both clinical significance and a social dimension. The foundation of the profession in Turkey was first laid with the establishment of the Physical Therapy and Rehabilitation College of the Hacettepe Faculty of Medicine and Health Sciences. In 1996, occupational therapy graduate and doctorate programs were initiated at the Physical Therapy and Rehabilitation Department of Hacettepe University, Institute of Health Sciences. In 2009, the Department of Ergotherapy was established within the structure of Hacettepe University. The students graduating from the department are given the title "Occupational Therapist."

The main aim of occupational therapy is to ensure participation of individuals in daily-life activities. Occupational therapists achieve this goal by sharpening the abilities of the individuals or groups to carry out the activities that they wish or need to do or that they are expected to do; or by arranging the activity or the environment in a way that enables better participation. This is why ergotherapy focuses on arrangement of each or all of the elements, including the person, activity and environment, as well as improvement of the capacity in order to enhance social participation.

The frequent use of physical agent modalities and its importance in physical therapy were confirmed, and it was also emphasized that these modalities could be combined with creative activities (11).

Studies in physical therapy and in related areas demonstrate the benefit of creative activities and the positive impact and value that it has for human health and well-being (12).

In this day of high-tech, managed-care service delivery with an emphasis on brief treatment, it is important for physiotherapists to be aware of nontraditional treatment options that may be uniquely beneficial for some patients. It may still be considered a novelty, also to patients. According to some studies, the most commonly used forms of creative activities are arts and crafts therapy followed by music therapy, exercise, and gardening. Also exergames and virtual reality offer alternative opportunities to provide neuro-rehabilitation and exercises that are fun. With the advancement of exergame and virtual reality systems, study of players' reaction on continued involvement in a game can guide game developers to maintain freshness through game progression that preserves the patient's attentional focus, minimizes attrition, and maintains a prescribed level of energy exertion. Some physiotherapists include commercial active videogames in their therapy sessions to help make repetitive activities funny and engaging. There is a need for a wide variety of available games, music, arts, crafts, and gardening to address novelty and personal preferences. Creativity and creative activities might be one form of physiotherapy that mediates the aforementioned effects (13).

Physical therapy techniques with aspects of creative and re-creative activities are, for example, animal-assisted therapy, horticultural therapy, and caregiver singing. Animal-assisted therapy, that is, to use animals as a mediator for therapy, is receiving more interest in rehabilitation with beneficial outcomes in various areas such as the care of the elderly and alleviating the perception of loneliness and depression (14).

Another form of physical therapy is horticultural therapy, including gardening, which has been described as a valuable option for rehabilitation and has been practiced in a physical therapy context to enhance quality of life and well-being in a broad sense (15).

Various aspects of music as a therapeutic activity in physical therapy are suggested as a possibility, and care singing has been proposed as a therapeutic intervention to accompany daily occupations (16).

This variety of activities related to creativity reflects a great interest and also an ambiguity as a result of different understandings of the concept of creative activities (17).

According to a similar study in Sweden, the respondents used varied creative activities; 48% used creative activities once a week or more, 36% once a month or more, and 14% at some

point every 6 months or so. The most common type of creative activity was craft activity reported to have been used by 68% of the respondents using materials such as textile, cardboard, ceramics, and leather. The second most common types were image/painting (32%) and gardening (30%). Other activities (e.g., using computers/games, photography, or cooking/ baking) were also frequently used (19%). A smaller proportion (6%) used alternative therapy forms. Animal-assisted activities (specifically trained dogs) were used by 6% respondents, while caregiver singing was used by 3% respondents (18).

Arts and crafts were the most engaging forms of creative activities, which may be a return to the roots of physical therapy. On the other hand, more modern and nowadays accessible activities, such as the use of computers/games and photography, were also reported as creative activities (19).

A study conducted in Sweden (8) indicated that ergotherapists utilized various creative arts as a part of their therapy. In Turkey, however, there are a very limited number of studies regarding the use of creative activities. There are only a few studies in the literature considering music therapy in children, and there is no information on where and how often creative activities are employed. Drawing inspiration from the aforementioned Swedish research, a questionnaire was prepared to investigate the issue of creativity, which is important in every field, within the scope of physiotherapy and rehabilitation. We aim to carry out a study similar to the Swedish study with the physiotherapists working in Istanbul, and thus identify the current state of occupational therapy in our country.

**METHODS**

This study was performed with the Approval no. 08.09.2015/37-298 of the İstanbul Bilim University Ethics Committee for Clinical Research using the data obtained via a survey method with 100 physiotherapists that were designated through simple random sampling. We obtained written consent from each subject.

Recorded data included sociodemographic characteristics (gender, age, and education) of the physiotherapists; where and how long they had been working; the specialties of the physicians that they work with; whether they continued training/education after graduation and if so how did they maintain their studies; whether/how often they involve creative activities in their treatment sessions; which activities they prefer; whether they get any negative reaction from patients or colleagues while applying the creative activities; and whether they apply any treatment method other than conventional methods.

**Statistical Analysis**

The recorded data were statistically analyzed. Statistical Package for the Social Sciences (SPSS version 22.0, IBM Corp.; New York, USA) was used for the statistical analyses. Descriptive statistics were made. If a p value was <0.05 with a 95% confidence interval, the values were assumed to be normally distributed.

**Table 1.** Socio-demographic characteristics of the physiotherapists

	Values (n=100)	Frequency (percent)
Gender	Male	30 (30%)
	Female	70 (70%)
Age	26–30	42 (42%)
	31–35	29 (29%)
	36–40	13 (13%)
	41–45	6 (6%)
	46–50	5 (5%)
	51+	5 (5%)
Education	University	51 (51%)
	Master	36 (36%)
	Phd	13 (13%)
Seniority	0–3	15 (15%)
	4–6	21 (21%)
	7–9	18 (18%)
	10+	46 (46%)
Foreign language	Not know	16 (16%)
	English	80 (80%)
	Other	4 (4%)

**RESULTS**

One hundred physiotherapists (30% men, 70% women) aged between 26 and 60 years old and living in Istanbul filled out the questionnaire. Thirty-six percent of these physiotherapists had completed their master’s degree, and 46% of them had been working for more than 10 years. The sociodemographic characteristics of the physiotherapists included in the study are presented in Table 1.

It was found that a great number (31%) of the physiotherapists work at private training and rehabilitation centers.

It was observed that 59% of the physiotherapists work with psychiatrists. This result indicates the specialties of all the physicians that the physiotherapists work with.

In total, 85% of the physiotherapists continued training after graduation, mostly (70%) by attending courses and seminars. According to the results of the study, 59% of the physiotherapists benefit from creative activities during their sessions. While 21% of them use handcrafts, 19% make use of computer games, 8% take advantage of music/theater activities, 6% use exercise painting, and 2% practice gardening.

In total, 35% of the physiotherapists taking advantage of creative activities apply them once or twice per week. Eleven percent of

the physiotherapists reported that they were faced with criticism from the patients while applying creative activities, while 8% were met with reaction from colleagues and 9% were criticized both by patients and colleagues.

At the same time, 58% of the physiotherapists made use of methods other than conventional methods, with reflexology being the most frequently (20%) employed method.

## DISCUSSION

On the grounds of the argument that creativity is a particular kind of problem solving process, creativity may be addressed both as a process and as the unique outcome of that process. Also, creativity may be defined as one's capacity to solve a problem or offer a new and acceptable product or service in her/his culture. In light of this view, creativity may be designed in organizations, generated goods, and services. Businesses, organizational units, and individuals may organize to launch innovations and creativity. Each of us can be creative enough to create unprecedented, original and useful ideas in our field of specialty. Rapidly developing technology and different living conditions have brought about the necessity for innovations in healthcare services. Healthcare professionals that continuously provide healthcare services for patients should take innovative and creative initiatives related to the treatment and care of patients. Creativity facilitates recovery of the patients while enhancing psychosocial skills and promoting abilities to cope with problems. Therefore, the significance of creative approaches increases in case of the services to be provided to individuals, whose adaptation to society has deteriorated and who experience many problems in various areas (20).

The present study, which addressed creativity through activities in physiotherapy, indicated that 59% of the physiotherapists include creative therapy once or twice per week within their sessions and often prefer activities involving handcrafts. This study shares similarity with the Swedish study regarding the finding of frequent use of handcrafts.

Further studies could better evaluate the status throughout the country by taking the activities that, have not been mentioned in this study, within the scope, as well as, examining the reasons why physiotherapists are criticized by patients and/or colleagues for using creative activities, investigating the fields where creative activities may be useful, and comparing ergotherapists with physiotherapists.

This paper emphasizes on the significance of creative approaches that increases in case of services to be provided to individuals, whose adaptation to society has deteriorated and who experience many problems in various areas. The present study, which addressed the concept of creativity through creative activities in physiotherapy, indicated that 59% of physiotherapists include creative therapy once or twice per week within their sessions and often prefer activities involving handcrafts. This study is important because there has been no previous study that has investigated the use of creative activities among physiotherapists in Turkey.

**Ethics Committee Approval:** Ethics committee approval was received for this study from the ethics committee of İstanbul Bilim University (no: 08.09.2015/37-298).

**Informed Consent:** Written informed consent was obtained from patient who participated in this study.

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