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Imagery: A Review

İmgeleme: Bir Gözden Geçirme

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ABSTRACT

Modern neuroscience has shown that relaxing images cause the brain to release high levels of serotonin, dopamine and oxytocin, which reduce anxiety, block cortisol and increase neuroplasticity. Modern medicine positions the human being as passive, helpless, in need of external help and in need of repair. However, far beyond this passive role, human beings should be seen as a being with the physical and spiritual power to repair themselves. The common point that all the studies examined in this study converge on is that imagery, which is an intrinsic ability, can be used as a low-cost, effective mental treatment tool. In some studies, imagery was defined as a more effective method than pharmacological interventions. Imagery is used in a wide range of diseases from psychotic disorders to mental disorders such as cancer, asthma, migraine, hypertension, immune system diseases, anxiety and depression. From a psychoanalytic perspective, the imagery technique, which is thought to function as impulse satisfaction and a defense mechanism, is also widely used in schools such as mindfulness-oriented therapy, cognitive behavioral therapy, and dialectical therapy. This review first discusses imagery and its use in history, and then describes current research on imagery applications on different diseases. In addition, it is written to emphasize the lack of research on the mechanisms through which this personal and inner power, which is thought to affect the efficiency of treatment in whichever field of physical or psychological help is sought, operates in the mind and to encourage new research..

Keywords: Imagery, imagery, therapeutic tool, pathology, physiology

ÖZ

Modern sinir bilimi, rahatlatıcı imgelerin beynin yüksek seviyede serotonin, dopamin ve oksitosin salgılamasına neden olduğunu ve bunların kaygıyı azalttığını, kortizolü bloke ettiğini ve nöroplastisiteyi artırdığını göstermiştir. Modern tıp; insanı edilgen, aciz, dış yardıma muhtaç ve onarılması gereken bir varlık olarak konumlandırmaktadır. Oysa insan bu pasif rolün çok ötesinde kendini onarabilecek fiziki ve ruhsal güce sahip bir varlık olarak görülmelidir. Bu çalışmada incelenen tüm araştırmaların birleştiği ortak nokta, içsel bir yeti olan imgelemenin maliyeti düşük, etkili bir zihinsel tedavi aracı olarak kullanılabileceğidir. Bazı araştırmalarda imgeleme farmakolojik girişimlerden daha etkili bir yöntem olarak tanımlamıştır. İmgeleme uygulamasının psikotik bozukluklardan kanser, astım, migren, hipertansiyon, bağışıklık sistemi hastalıkları, anksiyete ve depresyon gibi ruhsal bozukluklar gibi birçok hastalığa kadar yaygın bir yelpazede kullanıldığı görülmektedir. Psikanalitik açıdan bakınca dürtü doyumu ve bir savunma mekanizması olarak işlediği düşünülen imgeleme tekniğinin mindfulness odaklı terapi, bilişsel davranışçı terapi, diyalektik terapi gibi ekollerin içinde de yaygın olarak kullanıldığı görülmektedir. Bu gözden geçirme çalışması, öncelikle imgeleme ve imgelemenin tarihteki kullanım alanlarından bahsetmekte, akabinde farklı hastalıklar üzerine yapılan imgeleme uygulamaları hakkında güncel araştırmaları anlatmaktadır. Ayrıca fiziksel ya da psikolojik hangi alanda yardım alınacak olursa olsun tedavinin verimliliğini etkilediği düşünülen bu kişisel ve içsel gücün zihinde hangi mekanizmalar üzerinden işlediği üzerine yapılan araştırmaların eksikliğini vurgulamak ve yeni araştırmaları teşvik etmek için yazılmıştır.

Anahtar sözcükler: İmge, imgeleme, terapötik araç, patoloji, fizyoloji

Introduction

Modern neuroscience has shown that relaxing images cause the brain to release high levels of serotonin, dopamine and oxytocin, which reduce anxiety, block cortisol and increase neuroplasticity. When an image falls into the field of awareness, the distress it causes can be identified by investigating the beliefs represented by that image and the behaviors it causes (Miller 2016). A thought or image works as a "stimulus" in the mind. Whether this stimulus is predicted by biological evolution or learned, it has the capacity to produce certain homeostasis patterns. In situations of sadness or stress, fewer positive images are formed in the mind. The functioning of pathology is thought to be accompanied by repeated negative images. For this reason, people's experience of positive thinking is more than feeling peaceful and good (Apóstolo and Kolcaba 2009). In its simplest form, imagery is considered to be an effective way of coping with the stress of daily life and overcoming anxieties. While experiencing challenging life events, a person can be motivated by imagining a happier, more

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successful life and get rid of the cycle of depression (Aldemir 2013). In some studies, imagery has been defined as a more effective method than pharmacological interventions (Santos 2016). In addition, it is seen that imagery is widely used in a wide range of diseases such as psychotic disorders, immune system diseases, posttraumatic stress disorder and migraine (Kubes 2015, Santos 2016, Elgit et al. 2020).

Inpatient psychiatric patients with mood disorders enter a complex existential cycle due to the illness and repeated hospitalization. They think that by being hospitalized they can rebuild themselves and continue their lives. In this context, the hospital is both a refuge for patients and a place where their freedom is restricted . Imagination allows overcoming boundaries and removing obstacles in terms of time and place. The goal of imagery practice in clinics is to bring the patient from a passive state to an active state. Therefore, capturing this targeted feeling in the patient can be seen as a good step for the continuity of the treatment (Elgit et al. 2020). Imagery is also thought to involve less risk during use because it is noninvasive and does not require a pharmacological intervention (Kubes 2015). As a result, it can be said that imagery is a highly effective and cost-effective tool for health professionals (Miller 2016).

The fact that health research is often conducted within a health protection system based on hospitals, clinics and other health services may obscure areas that can contribute to the literature, and may prevent the development of other research that explores different conditions that make society unhealthy. This attitude may hinder the development of the use of an inner ability such as "imagery", which has played a role in both mental and physical treatments throughout history and has recently become a popular theoretical treatment method. Unlocking the power of this intrinsic therapeutic ability can ease the burden on the health care system by reducing the need for external help. This review first discusses imagery and its historical uses. It then describes current research on imagery applications on different diseases. In addition, with this research, it is aimed to emphasize the lack of research on the mechanisms through which this personal and inner power, which is thought to increase the effect of treatment, regardless of the field of physical or psychological help, works in the mind, to indicate the need for research in this field and to encourage new research. In this study, it was revealed that the use of imagery reduces pain and anxiety and reduces health expenditures. In general, although the available evidence in the literature is still insufficient to support claims that imagery directly affects the progression of the disease, it is clearly stated in the studies that the method of using this ability promotes the healing process of patients, prevents relapses, and gives them a greater sense of autonomy regarding the disease and disease management (Apóstolo and Kolcaba 2009, Kubes 2015, Santos 2016, Miller 2016, Özakkaş 2017, Öztürk 2019, Elgit et al. 2020).

History of Imagery

Throughout history almost all civilizations have seen life as an interaction between body, mind and spirit. In most ancient civilizations, healing and transformation were based on the interaction of these three. Imagery was also used and gradually developed in prayer, meditation, healing rituals and shamanistic interventions (Miller 2016).

There are records of the use of imagery among healing interventions in Ancient China, Ancient Egypt and Ancient Greece. It is thought that imagery was used for relaxation in the sleep temples in Egypt and Greece. During the dark ages 5 -15th centuries between -15th centuries , churches prevented imagery techniques used in therapies. For this reason, imagery interventions were not reintroduced until the Renaissance and the Age of Discovery (Miller 2016).

In the mid-1700s, Franz Mesmer reintroduced imagery-like interventions to western culture. Mesmer, realized that people's illnesses improved when he simply had them draw a verbal picture in their minds, and he often used imagery to reduce people's pain and dysfunctions. By the mid-1800s, Dr. James Braid thought that imagery could be used medically and proved that it was a valuable tool in surgery and found that the patient recovered much faster with less blood loss thanks to hypnoanesthesia . With the advent of psychoanalysis , there were only a few groups that practiced imagery techniques and the area of use of imagery was narrowed (Miller 2016). In 1916, Freud's student Carl Jung tried to build a bridge between the conscious and subconscious by using "active imagery" in his therapy. Thus, this powerful tool, which remained idle from the 1960s to the 1970s, was integrated back into what is known as holistic medicine. In the late 20th century, it was reintroduced by some clinicians in modern medicine to test and evaluate its therapeutic effects in certain patient populations, especially cancer patients (Kubes 2015).

In the 20th century, many forms of psychotherapy assumed that mental disorders could be reduced through imagery, hypnosis and other forms of mental intervention. In the late 1960s Radiation Oncologist O. Carl

Simonton and his wife Psychologist Stephanie Simonton investigated the use of imagery to improve immune function and found cases of increased healing in cancer patients. Clinical studies coordinated by psychologists Jeanne Achterberg and Frank Lawlis and the Simontons, and research on the application of imagery in cancer treatment, have taken this method further. These imagery-led studies have led to extensive research in the field of psychoneuroimmunology, revealing the strong connection between the body and the mind, and especially the connection between imagery and the immune system (Cantwell 2016).

In the last century, imagery has been widely used by coaches, athletes to improve their skills, students to gain self-confidence , patients to cope with difficult life events such as anxiety management before job interviews, or to improve most physical diseases (Miller 2016). According to the theory in which imagery is used, it can be used as scripted or unscripted guided imagery. Both methods have their strengths (Elgit et al. 2020).

Definition of Image and Imagery

With its general definition, imagery is an enlightened thought method that enables the creation of a new reality in the mind as a result of the interpretation of objective reality in the imaginary world (Turkish Language Association [TDK] 2011). The concepts of image and imagery, which have been known to exist since ancient times and used in many fields, have been defined in different ways.

Imagery in Psychoanalysis

Even when the existence does not exist, the dream conceived in the mind works as the reference of the object. In other words, the mental image carries expressions and traces reflected in external reality (Hançerlioğlu 2005). Individuals' awareness of the situations they are in affects their mental states. Mental states work like personal experiences and affect thoughts, behaviors and decisions. From this point of view, it can be said that imagery can be used to satisfy desires, to achieve pleasure, to achieve goals, to adapt to new situations and to improve oneself (Davis 2020).

Freud argues that people are not actually rational managers of their own lives and that in reality the individual's life is controlled by unconscious forces (Freud 2016). In addition, studies on neurobiology show that a human being stores all the events he/she has experienced since his/her birth and all the motions he/she feels in this process in memory molecules that act as archives in brain cells (Geçtan 2002). The human brain is an organ that d reorganizes the data it stores and produces new behavior and thought strategies. This creative activity that enables reorganization is defined as the power of imagination (Öztürk 2019).

According to Freud, a person who faces a great difficulty has two basic issues. One of them is to adapt to the new situation and the other is to protect oneself against psychological disintegration. The first group of difficulties is related to effort; the second group aims to preserve the psychological integrity and balance of the organism by trying to resolve them with defensive behaviors. When imagination is evaluated with the first group, it functions as satisfying the desire; when it is evaluated with the second group, it functions as neurotic defense (Öztürk 2019) . When daydreams about impulses reach consciousness, if the impulses are not accepted by the self , anxiety and worry arise. For this reason, fantasies strive to find an acceptable way for themselves by disguising themselves under the control of defense mechanisms. The impulses that are pushed out of consciousness work through dreams while sleeping and fantasies while awake in order to create the possibility of discharge for themselves under the control of the self. Both aim to discharge the repressed, blocked and forbidden impulses in a way accepted by the self (Öztürk 2019).

Anna Freud argues that another feature of the experienced, perceived visible content is that it can also be experienced as a distortion of the original dream image. This distortion allows sleep to continue at night, and during the day it conceals the understanding of the original thoughts that are deemed threatening by the ego. Thus the impulse is discharged unhindered. Both the unconscious desire is satisfied and the psychic structure can protect itself (Freud 2011, Özakkaş 2017).

A dream is the default state of a vision experienced during sleep. Every dream is a representation of unconscious desires, impulses, fears and conflicts. The two main functions of dreams and visions are to maintain sleep and to provide the opportunity to express and discharge repressed unconscious desires, impulses, fears and conflicts in disguise (Öztürk 2008). Lacan , while defining reality as impossible, expresses it as a situation that cannot be included in the imaginary order and the symbolic order. He expresses this situation as the non-symbolizable comes back by hitting reality, as in psychotic people (Tuzgöl 2019).

Imagery in Neurology

In addition, patients can develop their brains by practicing imagery on a regular basis, realizing their desires and building powerful and new neural networks that support the development of life changes (Miller 2016). Creative imagination functions through the power of the human mind to solve problems, generate alternative solutions and synthesize by using the support it receives from previous experiences. Vygotsky defined imagination not as an ordinary activity or mental entertainment, but as an effective function for survival. According to him, survival and imagination power are closely related to each other (as cited in Öztürk 2019) .

When thoughts and wishes are channeled into mental images, perception-responsive regions of the brain are triggered . Imagery plays an important role in various aspects of perception, learning, memory, action, information processing and reasoning. "Our body does not distinguish between sensory images and what we call reality" (Weydert et all 2006). Neuropsychological research also supports Naparstek's idea (as cited in Kubes 2015). In addition, imagery stimulates various areas of the brain, resulting in numerous bodily responses (Kubes 2015) .

Imagery plays an invaluable role in human behavior and development. Imaginative experiences can trigger the emotional world . According to the cognitive approach, creative people who can use mental images are successful in solving unusual problems that are not common because they can think differently through imagery (Öztürk 2019). However, imagery is used as an effective way to evaluate all alternatives in any situation as it provides the opportunity to experience the next move . It is possible for people with uncertainty anxiety to reduce their anxiety by visualizing scenarios about the future . Imagining with this type of mental work can be useful in areas such as concentration, self-confidence, motivation, controlling emotions and anxiety levels for possible problems that the person may encounter (Öztürk 2019).

Imagery in Practice

Imagery is the ability to create not only an image or picture in the mind, but also an idea (Gawain 2007). It can also be explained as the rehearsal of reality, that is, to visualize real experiences such as hearing, feeling, seeing, smelling, tasting, etc. in the mind as if as if they were really experiencing them (Kolayiş et al. 2015).

The most common form of imagery that positively affects human health is the work on anxiety . Thoughts that redirect attention to healthier ways, such as generating methods of coping with stress , finding alternative solutions to problems and providing mental relaxation, are experienced through imagery (Rossman 2000). Although guided imagery is believed to be a form of hypnosis, they have quite different aspects. In hypnosis, the mind is cleared of images, while in guided imagery, vivid images are created in the mind (Santos 2016).

Current Research on Imagery

With the 21st century, many local and international studies have been conducted on imagery. Considering the results of the studies, it is understood that imagery has positive physical and psychological effects on patients.

Imagery in Turkish Publications

Elgit et al. (2020) conducted a study in Ege University Faculty of Medicine Hospital Community Mental Health Center and İzmir Katip Çelebi University Atatürk Training and Research Hospital Community Mental Health Center between 2017-2018, considering that guided imagery would contribute positively to the functionality of individuals diagnosed with schizophrenia . The study was conducted on 48 individuals who met the research criteria among 85 individuals who benefited from daytime CMHC. In the study, a comparison was made between the intervention and control groups in terms of the mean posttest scores of the Functional Recovery Scale in Schizophrenia, subscale and overall total posttest scores and the mean posttest scores of the Subjective Recovery Assessment Scale.

In the study by Elgit et al. (2020), the intervention group received a guided imagery intervention for 10 minutes every day for two weeks. As a result of the study, a statistically significant difference was found between the mean scores of the intervention group's functional recovery in schizophrenia and daily living skills subscale, health and treatment subscale mean scores, recovery scale general total mean scores, subjective recovery evaluation scale mean scores . There was no statistically significant difference between the mean scores of functional recovery in schizophrenia, social functionality subscale, and the mean scores of functional recovery in schizophrenia, occupational functionality subscale. This result is thought to be an indication that it has a

positive effect on the patient's recovery level. There are very few studies in which directed imagery is used in psychiatric diseases. In Turkey, a different study conducted in this field could not be found.

Another study on imagery in Turkey investigated the relationship of imagery mechanism with coping skills and its relationship with depression in the presence of coping skills (Öztürk 2019). The population of the study was trauma victims and long-term prisoners, and the sample was a total of 200 volunteer convicts (118 men/82 women) in Muğla Eşen Open/closed T Type Prison. In the study, Baron and Kenny's (1986) four-step analysis was used for mediation analysis. As a result of the study, it was found that imagery had a partial reducing effect on depression both alone and in the presence of coping skills. The study stated that imagery is one of the six coping resources that people use to cope with problems in the BASIC _PH model developed by Mooli Lahad and Alan Cohen, and that it is also used effectively in the problem-solving process (Lahad 1997). When the imagery skill is evaluated in terms of being only one of the six coping skills, the 18.07% found as a result of the study shows that the mediation effect is an important rate as a variable alone (Öztürk 2019).

When the results of the studies are compared, it is seen that imagery increases daily life and coping skills in both studies. Accordingly, it was revealed that anxiety and depression decreased.

Imagery in International Publications

Similar studies on schizophrenia in the literature are as follows: In a study conducted by Johnson et al. (2011) with 18 participants diagnosed with schizophrenia, it was reported that imagery work decreased negative symptoms and increased positive symptoms and psychological recovery. The practices used in this study consist of mindfulness practices that bring individuals into the moment.

Another study on imagery, Apóstolo and Kolcaba (2009), is a study of a guided imagery intervention to reduce depression, anxiety and stress, as well as to increase comfort in psychiatric patients with depressive disorders. It was hypothesized that patients with mood disorders who received a guided imagery intervention on a compact disc (CD) once a day for 10 days during the study would have higher comfort and show fewer symptoms of depression, stress and anxiety than the comparison group. In this study, which is a quasi-experimental design, 60 depressed patients who were hospitalized for a short period of time were taken as a sample . In the 21-minute CD prepared for the study, patients were made to do deep diaphragmatic breathing and relaxation exercises accompanied by relaxing nature scenes, scents to trigger the senses and imagination of nature sounds . Patients were asked to create positive, relaxing and serene images of the hospital context by imagining that they had met someone with whom they could share life. With these suggestions, the study aimed to help patients idealize a comfortable, safe space where they could make positive imagery and get rid of disturbing thoughts. In psychiatric inpatients, the comfort scale and depression, anxiety and stress scales (DASS-21) were administered before and after the intervention. These tests were administered before (T1) and 10 days after (T2) the intervention , comfort and DASS-21 were assessed in the usual care group at T1 and T2. Repeated measures revealed that the treatment significantly increased the group's well-being over time and reduced depression, anxiety and stress. In the study, changes in each of the DASS-21 subscales following the 10-day guided imagery intervention revealed that the treatment group had significantly lower levels of depression, anxiety and stress. When comfort scores are assessed, they are thought to strongly predict who will show reduced symptoms of depression, anxiety and stress on the DASS-21. At time 2, the total score on the DASS-21 was negatively correlated with the total comfort score, and the negative correlation meant that people with higher comfort had lower depression, anxiety and stress. However, the research results of Apóstolo and Kolcaba (2009) show that using imagery, as expected, can result in comfort, encouragement and well-being, allowing the patient to restore physical and mental health. In this context it is thought that a program of imagery instruction that addresses the discomfort caused by symptoms associated with mood disorders through the use of physical faculties can produce regenerative changes in the mind and body .

In 2004, Campbell and Gillies (2004) applied a program involving mental imagery and music to 45 women with breast cancer. As a result of the study, it was reported that guided imagery had an effect on the decrease in depression and anxiety during chemotherapy. McKinney et al. (1997) used guided imagery in combination with music with 28 healthy adults. The researchers reported significant decreases in depression, fatigue and total mood disorders between pre-test and post-test. Watanabe et al. (2006) conducted a study with a sample of 148 healthy adults using relaxation and positive mental imagery. According to the study, positive increases in people's moods were detected after two sessions.

Imagery creates a bridge between the mind and body and connects perceptual, emotional and psychological, physiological and behavioral responses. According to Gilbert et al. (2006), the emotional changes associated with

anxiety and depressive disorders are often related to imagery . In this context, it is thought that the problematic of some depressions or other emotional difficulties may be caused by not using imagery (Apóstolo and Kolcaba 2009). Positive images and positive emotional experiences through imagery are considered to be able to neutralize the depression rumination spiral. This process can work as an adaptive alternative to decompensation, elevating mood and alleviating depressive symptoms. When depressed individuals achieve mental relaxation and physical relaxation through imagery, they are able to distract their thoughts from unpleasant stimuli (Apóstolo and Kolcaba 2009). Thus, it can be evaluated that the positive thoughts created by images can also contribute to the development of feelings about the self and the other.

Kubes (2015), who included various studies on imagery in his study, mentioned a randomized controlled trial involving 26 patients with chronic obstructive pulmonary disease, in which a guided imagery technique was applied to patients who were encouraged to rest quietly. According to the results of the study, oxygen saturation levels were significantly higher in patients after the imagery intervention. In another study investigating the effects of a 20-minute imagery and music protocol on breathlessness in 53 patients with advanced cancer, it was reportedthat the intervention significantly affected carbon dioxide levels .

In Kubes' study (2015), it was stated that when an imagery practice that elicits a relaxation response, such as meditation, is practiced regularly, it minimizes the negative effects of stress on the body. According to another randomized controlled trial involving guided imagery practice, participants reported significantly lower stress levels and significantly higher coping self-efficacy after 8 weeks of training and at 1-year follow-up when compared to a control group receiving only physical and occupational therapy with a 10-minute, CD-recorded guided imagery intervention provided professionally three times a week and practiced twice a week at home. In another study conducted in children diagnosed with sickle cell disease, also included in Kubes' study (2015), it was reported that when participants used guided imagery for a period of 5 to 10 minutes, 3 times a day for one month following a short training period, there was a significant reduction in pain intensity and analgesic use, as well as greater self-efficacy and increased school attendance . Similarly, in a study of children with chronic abdominal pain, Weydert and colleagues found that when they used guided imagery or breathing techniques to aid relaxation in addition to their usual medication, there was a significant reduction in pain among children who practiced imagery. A randomized controlled trial in third graders examined the effects of 10 minutes of daily teacher-led imagery exercises on stress management, anxiety symptoms and heart rate variability. The effects of a daily 10-minute session in which a teacher read aloud from a children's book with deep breathing, gentle movement, and imagery were reported after 4 months and at 1 year follow-up, with the intervention group having significantly lower anxiety scores than the control group .

In his review on guided imagery, Santos (2016) described guided imagery as a more effective method than pharmacological interventions. In a study investigating the effects of guided imagery on tension-type headaches in this review, it was found that imagery therapy was more effective than pharmacological interventions in reducing the frequency, intensity and duration of headache . In another recent study included in the review, the researchers stated that before starting radioactive iodine treatment, they gave participants a guided imagery CD to listen to once a day for a total of 4 weeks before sleep. It is reported that the group using the CD showed a statistically significant reduction in stress, fatigue and heart rate variability. Santos (2016) in his review has done a lot of research which proves that guided imagery helps to cope with many physical and mental illnesses. Constantly activating the stress response leads to hormone dysregulation, leaving the body vulnerable to disease. With imagery, patients can learn how to stop harmful images and instead focus on images that support their health and well-being (Santos 2016). In this context, images that support healing were found to be easily incorporated into daily practice in holistic patient care by healthcare professionals in the acute care setting.

When the results of international studies are examined, it is found that controlled imagery has positive effects on patients. It has been observed that imagery has a healing effect on psychological disorders such as stress, depression and anxiety, as well as physical disorders such as shortness of breath and cancer.

The main limitations of national and international studies are small sample sizes. Although the findings of these studies are encouraging, more rigorous studies using adequate sample sizes, randomized trials, validated outcome measures and standardized interventions that can be independently replicated are needed. However, patients using imagery interventions appear to give feedback such as improvements in pain, anxiety, depression and functioning, depending on the subject of the research. It is thought that there is a need to conduct studies on different types of diseases, with standardized techniques and focusing on different feedbacks.

The point where the studies converge is that imagery, which is an internal ability, is thought to be used as a low-cost mental treatment tool. It has been determined that individuals can achieve physical improvements as well as psychological improvements with imagery. In addition, there is evidence that guided imagery can be useful in

reducing many disorders associated with mood disorders such as depression, stress, anxiety . It is thought that the reduction of pain and anxiety, which is included in many studies on the use of imagery, will directly reduce health costs.

Table 1: Current research on imagery

Reference	Sample Size	Tools Used	Objectives	Outcomes
Elgit et al. (2020)	48 Individual	Guided Imagery	The imagery study was aimed to contribute to the functionality of individuals diagnosed with schizophrenia.	There was a statistical difference between the mean scores of the functional recovery and daily living skills subscale, the mean scores of the health and treatment subscale, the mean total score of the recovery scale, and the mean scores of the subjective recovery assessment scale in schizophrenia.
Ozturk (2019)	118 Male/82 Female	Guided Imagery	It was aimed to determine the relationship between imagery and coping skills and the association of these skills with depression.	Imagery was found to have a partial mitigating effect on depression by affecting coping skills
Johnson et al. (2011)	18 Individual	Mindfulness	It was aimed to prove that imagery positively affects the recovery process of participants diagnosed with schizophrenia.	Imagery is reported to accelerate psychological recovery by reducing the negative symptoms of the disease.
Apóstolo and Kolcaba (2009)	60 Individuals	Guided Imagery with Compact Disc	The repetitive imagery study aimed to reduce depression, anxiety and stress in psychiatric patients.	Imagery has been shown to positively affect physical health as well as relaxation, encouragement and well-being.
Campbell and Gillies (2004)	45 Women	Guided Imagery with Music	It was aimed to reduce the stress levels of breast cancer patients undergoing chemotherapy.	The application was found to reduce the rate of depression and anxiety in patients.
McKinney et al. (1997)	28 Individual	Guided Imagery with Music	It was thought that imagery practice would also have a positive effect on healthy adults.	There was a significant reduction in depression, mental fatigue and mood disorders.
Watanabe et al. (2006)	148 Individual	Relaxation Techniques and Guided Imagery	It is thought that the application will have a positive effect on healthy adult individuals.	After two sessions, a positive change was found in individuals' moods.
Kubes (2015)	26 Individual	Guided Imagery	The application aims to increase the oxygen levels of patients diagnosed with lung cancer.	According to the results of the study, it was determined that the oxygen saturation levels of the patients increased.

Discussion

In some studies on imagery, it has been found that when imagery is used as a clinical tool , it reduces stress and anxiety levels and improves the sense of self-efficacy necessary to manage symptoms related to chronic pain. It is thought that during imagery, the person comprehends all the sensory effects he/she is exposed to through internalization and reacts in line with the meanings of the subjective images that emerge as a result of this internalization. The image that emerges as a result of internalization begins to replace perception. This is thought to bring about healing. In our country Except for Elgit et al. (2020), no similar research on schizophrenia has been found. According to the research results of Elgit et al. (2020), it is revealed that two weeks of scripted guided imagery practice in participants diagnosed with schizophrenia creates an increase in the functionality of individuals . It is stated that long-term and repetitive trainings and reinforcements will increase the functionality of the patient in the long term .

It is important that services are integrated in order to ensure a full recovery in patients regardless of the disease

they have. Many people who have lost their mental faculties can regain functionality in society in this way (Çam and Bilge 2014, pp.1051-1072). Modern neuroscience has shown that relaxing images cause the brain to release high levels of serotonin, dopamine and oxytocin, which reduce anxiety, block cortisol and increase neuroplasticity (Miller 2016). Apóstolo and Kolcaba's (2009) research also supported the hypothesis that imagery results in relaxation, encouragement and well-being, which in turn leads to the patient's restoration of physical and mental health .

Apóstolo and Kolcaba (2009), who evaluated whether imagery is associated with a reduction in psychiatric medication use and dose escalation, recommended that health professionals include this intervention as part of the health care plan to help patients relieve their discomfort and achieve a state of homeostasis . In this context, it can be concluded that guided imagery used as a complementary intervention may contribute to the reduction of the dose of antidepressant medication and consequently to the reduction of related side effects and adherence to a more holistic treatment. Both the intervention and measurement strategies of imagery suggest that it is consistent with a holistic and humanistic approach to psychiatric care (Apóstolo and Kolcaba 2009).

If the way people think affects how people feel , it can be concluded that positive thinking can alleviate depressive states and related disorders. Imagery is thought to help fight rigid, automatic and helpless thoughts and in this sense strengthen self-esteem and social well-being (Apóstolo and Kolcaba 2009). In this context, it is thought that imagery creates a bridge between the mind and body and connects perceptual, emotional and psychological ; physiological and behavioral responses.

In addition, Verhoef and Mulkins' study provides valuable information for future research (Mulkins and Verhoef 2012). Symptoms related to recovery include resolution of symptoms, goal attainment, social support, changes in perspective and approach to life. FMRI has been interpreted as suggesting that new research combining psychophysics and brain imaging is likely to reveal new evidence about the mechanisms at work during imagery practice and the brain areas involved in the higher-order cognitive processes underlying image use (Kubes 2015).

Despite all these advances, the historically poor design of imagery studies and the inherent difficulty in identifying and capturing the essence of healing are the biggest obstacles to advances in imagery practice (Kubes 2015). Although it has been on the scene for a long time, the mechanisms of how guided imagery reduces pain are still not entirely clear. From the studies conducted, it is possible to say that imagery scenarios that focus on relaxation reduce anxiety , stress and related pain, accordingly, imagery empowers the patient and supports their well-being, and through this, imagery contributes to the reduction of anxiety and pain .

In addition to the studies reflecting the views that it creates a change in the physical structure of the brain, when the imagery technique is evaluated in the psychoanalytic field, an evaluation can be made that the internal conflict between desire and prohibition unconscious material is subjected to censorship and that it also releases the tension created by being blocked. Neurotic symptoms may occur as a result of the conflict between desire and prohibition. It is thought that the urge, makes an effort to ejaculate in accordance with the ego. Regardless of whether it is day or night, dreams can be used as the calmest means of this path (A. Freud 1938). Imagery can be considered as one of the healthiest ways that allows an urge to empty itself by making itself accepted by the ego.

In a similar way, the aim of dream interpretation is to determine the underlying desire by going in the opposite direction to the way the dream is formed. The content of the dream is tried to be interpreted by going in the opposite direction to the desire. For this reason, dream elements are separated and each element is revealed through its associations (A. Freud 1938). In this context, imagery, daydreaming or daydreaming can be used as a tool on the way to pathology for the therapist . Relaxation can facilitate the release of chemicals into the brain that nourish the growth of new neurons and even new synapses. This growth has been found to virtually reprogram the subconscious mind, creating new cognitive and emotional responses in harmony (Miller 2016). Regardless of the treatment method, it is considered as the first steps to focus the mind of the individual to get efficiency from the healing process. Research suggests that relaxation techniques trigger patients' well-being and give them a greater sense of autonomy in managing their illness (Kubes 2015).

Conclusion

In conclusion, it can be stated that the available evidence in the literature is insufficient to support the claims that imagery directly affects the progression of the disease, but that the method of using this ability promotes the healing process of patients, prevents relapses, and gives them a greater sense of autonomy regarding the disease and its management. In addition, the results of all the studies on the use of imagery reviewed in this research show that imagery reduces direct health care costs by reducing pain and anxiety, leading to a reduction

in direct health care costs and fewer medical visits. This review is not a complete description of the research in the field, but is intended to provide a summary of the research and to stimulate scientific debate. The mechanisms through which this personal and inner power, which is thought to affect the effectiveness of treatment, whether physical or psychological , whichever area of help is sought, operates in the mind are still unclear. Finally, based on the results of all these studies, it can be emphasized that research on imagery should be conducted on more samples and different types of disorders.

Psychoanalysis was the undisputed dominant view in psychotherapy practices in the modern world until the 1950s, but the concepts and theories of psychoanalysis, which basically argues that all mental processes take place in the unconscious , have not been tested by clinical and experimental psychology . This is defined as a deficiency. In addition, there are objections from practitioners in the field for the application process. While some of these objections remained within the theory despite causing radical changes in the theory, the work of Albert Ellis and A. T. Beck brought the principles of learning to the center of psychotherapy and caused a complete paradigm shift in practice and this process led to the birth of behavioral therapies. Although the schools have different theories and guidelines and are thought to be mutually exclusive, when the theories are examined more carefully, it can be thought that they are basically in exchange and the issues they deal with are similar. The fact that cognitive-behavioral schools argue that they are evidence-based and think that they are different from other schools may be a controversial issue that needs to be re-evaluated. Especially the results obtained from the well-being scale, which third wave therapies define as evidence, and the data obtained from brain imaging studies on the positive change in the physical state of the brain obtained from meditation practices or brain imaging studies after exposure, which are included in their techniques, it is thought that discussing whether it is due to the cognitive change caused by imagery or whether it is due to a state of relaxation brought about by the impulse satisfaction of imagery will be beneficial to every field, whether cognitive, behavioral or emotional. Although the available evidence is insufficient to support claims that imagery directly affects the progression of the disease, research in the literature suggests that using this ability promotes the healing process of patients.

From a psychoanalytic point of view, imagery, which is thought to function as impulse satisfaction and a defense mechanism, is widely used in mindfulness-oriented therapies with almost all meditations being based on imagery, in cognitive behavioral therapy in the treatment of depression and anxiety within exposure practice , and in dialectical therapy again within mindfulness practices. While this inner ability, which has found its place in almost every school and every therapy practice, is used in cognitive behavioral schools that have rebelled against psychoanalysis, whether it actually serves cognition more, whether it serves impulse satisfaction or whether it serves a neurological field by creating a physical relaxation in the mind is an issue that needs to be discussed. Encouraging new research to be conducted in a holistic and inter-theoretical communication without excluding each other may be beneficial for the enrichment of the literature, especially by giving researchers who oppose eclecticism a perspective on the fact that no school can work independently of the other.

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