

Effect Of Pilates Exercises on Psychological Health

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Abstract

This compilation article; It was created by conducting literature research to investigate the effect of pilates exercises on depression, anxiety and life satisfaction. In this context, pilates exercises are also discussed as a type of exercise through the concepts of psychological health and therefore depression, anxiety and life satisfaction. It was concluded that it may have a therapeutic effect as well.

Keywords: Exercise, Pilates, Anxiety, Life Satisfaction

Introduction

Today, the decrease in physical mobility and the increase in stress intensity with intense work and social life have led to the emergence of more physical and mental problems in people. Now, individuals are looking for ways to protect their physical and mental health according to their economic power and interests. It uses different methods for this. One of them is pilates exercises. In parallel with the physical exercise needs of individuals, there has been an increase in the number of sports centers recently [1]. Due to the increasing interest in pilates exercises with different types of exercise in sports facilities, pilates exercises are also made.

Physical exercise activities protect and improve psychological health as well as physical health. An active physical life causes less negative emotions such as depression and anxiety, while it causes positive emotions such as life satisfaction. Physical exercise activities reveal positive physical and psychological results in different forms in individuals from all age groups. Physical exercise activities reveal the importance of physical exercise while providing an active life [2]. Doing physical exercise activities regularly increases physical endurance and increases the ability to move and condition. In addition, it prolongs life span [3].

Physical exercise protects physical and mental health. It has been seen in studies that Pilates exercises protect and improve physical and mental health and mental health as a type of exercise that appeals to the mind and body [4,5]. researches also show that pilates exercises reduce psychological problems [6]. As the beneficial results of pilates exercises on physical appearance appear, interest in pilates exercises has been increasing recently [7]. Pilates exercises, which have a positive effect in Doing physical exercise also affects

the physiological structure. It improves neurological activity in a positive way. Due to this effect, hormones work more healthily and affect psychological health positively. Neurological health ensures that the nervous system responds correctly to stimuli and creates a healthy mental structure. The relationship between neurological health and psychological health has recently been better understood. Scientific research has shown that physical exercise protects psychological health as well as neurological health and is effective in preventing psychological diseases [8,9].

Scientific research has revealed that pilates exercises protect physical endurance by increasing muscle strength. Researchers also examine the effects of pilates exercises on mental structure. These studies are generally conducted on the bodily and cognitive effects of pilates exercises [10]. When the literature is examined, it is seen that there are fewer studies investigating the effects of pilates exercises on mental health.

Concepts And Literature Research

The Concept of Exercise

All of the planned activities for the protection and improvement of physical health by arranging physical activity within a certain discipline are called exercise. By physical exercise activity, activities done to increase cardiovascular capacity by having a healthy posture, muscle strength, agility and fitness are meant. Physical exercise activities, stretching, consists of phases such as relaxation, warming and cooling. While expressing planned physical activities with the term exercise, activities that do not require any planning and configuration in daily life (daily activities such as climbing stairs, walking, going shopping) are defined as physical activity. As it is understood from here, physical exercise activity

and physical activity are different concepts [11].

In this context, sports activities are included in physical exercise activities. Since the birth of humanity, sports have had an important place in the lives of individuals as physical exercise activity. Sports are a fact of social life [12].

Physical exercise activities have many individual, social and cultural benefits. According to the literature, these can be listed as follows:

- It increases the performance of people in social and business life.
- It increases the physical capacity and strength of individuals.
- It increases the solution capacity of individuals in the face of the difficulties they face. Individual and national sports competitions increase cultural awareness.
- Individuals learn to use their spare time better with physical exercise activities.
- Team spirit develops and feelings of approval and approval are reinforced.
- Perceptions of social responsibility of individuals develop.
- It enables individuals to control their anger. They learn to respect both themselves and other people. The capacity to control their behavior develops.
- Individuals take more productive and creative roles in society by developing more positive behaviors.
- Individuals become more successful in their family, business and professional lives [13].

Pilates Exercise and Its History

As an exercise activity, pilates is a physical exercise activity that provides mind and body integrity, created by synthesizing Eastern and Western philosophies. Joseph Pilates defined pilates exercises with the term controllogy. Pilates exercises have been developed on the basis of [14]. Pilates exercises are a type of exercise that requires precision and concentration [15]. The founder of Pilates, Joseph Pilates, was born in Germany in 1883. He was taken prisoner in England in World War I and for the first time, he made these exercises done by German soldiers who were captured and helped them get better. It was developed by combining it with exercises such as yoga, ballet and dance [16]. Influenced by many dances and sports activities, Pilates exercises have been adapted to pilates with 500 movements. Pilates exercises can be done with or without tools. Many different tools such as reformer, wundachair, barrel, and spine corrector can be used in instrumental pilates. These tools have been developed for pilates exercises [17].

Implementation of pilates exercises in Turkey started in the early 2000s. In the last 10 years, pilates exercises have been applied and become widespread in sports centers and boutique studios. It is an exercise branch that attracts a lot of attention among women and is preferred for aesthetic purposes [18]. As a result, the interest in pilates exercises has paved the way for it to be the subject of scientific research [19].

Pilates exercises are performed as exercises with and without tools, and exercises without tools are performed on a pilates mat with a ball, large or small pilates balls, pilates circle and pilates bands.

Pilates Mat Movements: It consists of stretching, resistance and relaxation movements. There are modern and classical pilates-mat movements. Stretching movements can be made with a pilates ball on the mat, as well as a pilates circle and pilates bands with different resistances are used to relax and stretch the regional muscles.

Pilates exercise sessions are a type of exercise that can be done at any age, as it does not tire the body too much. Since it does not require a certain performance, the participants do not have any difficulties while doing pilates exercises [20].

According to Eroğlu, the usage purposes of pilates exercises are listed as follows:

- Increasing body concentration
- Have a neat appearance
- Providing balance and flexibility
- Increase the condition of the joints
- Having strong muscles
- Protection from accidents
- Treating posture disorders
- Increasing awareness by providing mental and physical integrity
- Developing the capacity to breathe
- Getting rid of intense stress [10,21].

Basic Principles of Pilates Exercises

Pilates exercises have 6 basic principles; concentration, center, control, sensitivity, fluidity and breath [22].

Concentration

Exercises provide the unity of mind and body. At this point, the patient is in control of the smoothness of the movement. He only thinks of maintaining his muscular corset in the trunk. If he breaks his corset during movement, he immediately returns to the starting position [23]. A condition for performing Pilates movements correctly is; is to transfer the concentration to certain parts of the body or to the applied movement [24].

Center

Pilates determined the part of the body between the hips and the lower ribs as the "centre of strength" and believed that this part should be developed correctly in order to stay healthy. A strong 11 center of force is the foundation of all pilates moves. The energy radiates from the center and flows towards the hands and feet. This is called "focusing" [24]. With a strong center;

- The pressure on the spine is reduced and acts as a natural corset for the internal organs.
- Provides proper breathing
- Gives more energy. Because starting the movement from the center makes these movements more effective.
- Provides better control of stance, balance and central movements.

Control

The unchanging rules of Pilates exercise movements; discipline, perfection and control. One of the reasons why Pilates calls his method "control" is his belief that one can be truly healthy when

the mind is trained to control body movements [24]. In fact, motor learning and body control lie in the nature of pilates (Anderson & Spector, 2000). By fully concentrating, every aspect of a movement can be controlled. It can be controlled not only in wide movements of the limbs, but also in positions such as fingers, head and feet, degree of straightness or hump of the back, rotation of the wrists, inward or outward rotation of the legs [25].

Sensitivity: Sensitivity is necessary to improve the quality of movement. Because precision is vital to re-aligning body posture. Control of certain muscles and a closer mental connection develops with increased precision. Precision thinking paves the way for precise movement; thus maintaining momentum without any impact or loss of balance. Precision helps with coordination and is the practical application of focused awareness [25]. Higher awareness provides better balance and coordination. Thus, it allows to act more elegantly and in harmony with the environment [24].

Fluidity

Every movement performed in Pilates is natural, elegant, interconnected and fluent. There is a controlled speed and fluency when moving from one movement to the next [24]. No movement should be irregular or hard. Softness and equally fluent movement should go together [25].

Breathing

Breathing and movements are interconnected in Pilates. In order to breathe properly, it is necessary to completely fill and empty the lungs so that the body can be cleaned and renewed so well. With the right breathing technique, endurance increases, concentration becomes easier and it feels more energetic [24].

The Benefits of Pilates Exercises

Pilates exercises have a positive effect on physical, motor and psychological health and these are explained under the following headings.

The Benefits of Pilates Exercises on Physical Health

Living a sedentary life is one of the reasons that impair physical health. Individuals who do not lead a physically active life may experience problems related to their physical health [26].

Physical exercise increases the use of energy and provides calorie burning and in this way causes their physical appearance to become healthy [27]. Studies show that participation in exercise provides weight control while also getting rid of excess weight [28, 29].

Many scientific studies on this subject have shown that exercise reduces bone resorption disorders seen in postmenopausal women in preserving bone density and accordingly [30, 31].

Regularly participating in pilates exercises not only improves physical appearance, but also ensures a proper posture, an upright posture, and thus satisfaction with physical appearance. Studies have reported that participation in pilates exercises also improves physical health [4,17,,20,21,32-40].

Benefits of Pilates Exercise on Motor Health

It is seen in literature studies that physical exercise activities and sports affect the motor health of individuals positively when done regularly [41]. Since motor development is faster in childhood, it is stated that exercise and sports, especially in childhood and adolescence, ensure healthier motor development. Experimental studies reveal that exercise and sports support motor development, it was reported that exercise in childhood positively supports motor development[42,43]. As a type of physical exercise, pilates exercises have attracted attention in literature studies that protect and improve motor parameters such as balance, strength, concentration, and muscle strength [33,35,44- 52].

Benefits of Pilates Exercise on Psychological Health

Another indicator of psychological health is to participate in exercise regularly [53]. However, participation in exercise is also used in the treatment of psychological disorders [54]. Many other literature studies have also reported that regularly participating in exercise protects and improves psychological health as well as physical health [55-58]. participation in exercise has an important place in the protection of mental and spiritual health [59-61].

According to Meydanlıoğlu, exercise has positive biological, psychological and sociological results. Participation in exercise also improves psychological health due to its physiological effect. With exercise, serotonin hormone secretion increases and the individual feels happier after exercise. As a result, participation in exercise protects psychological health and at the same time. has a therapeutic effect [62]. Participating in physical exercise regularly affects motor and mental health as well as physical health. According to Shah, pilates exercises also consist of psychological elements. Pilates exercises are performed by providing body and mind integrity in terms of principles, and this means that pilates exercises have positive psychological health as well as physical health. influences in the direction [63].

One of the most important psychological problems of our time is the increase in the number of individuals with high levels of anxiety and depression by being exposed to intense stress. Stress affects the lives of individuals negatively [64]. It is seen in the literature that there are different methods that individuals resort to to get rid of stress [65]. When the literature is examined, it has been found that regular participation in exercise both prevents the formation of stress and provides relief from stress, and that stress can be managed more healthily in individuals who exercise [56]. Individuals of all ages can attain a healthy psychology and psychological resilience by controlling their stress and managing it correctly [13]. reported that physical exercise comes first among the activities they resort to to get rid of stress when they are exposed to stress. The research was conducted by [66].

Participation in regular exercise has a reducing effect on depression and anxiety. Studies on this subject in the literature reveal that regular participation in exercise has a curative effect as well as a preventive effect from depression [67]. Regularly participating in physical exercise activities improves depression by reducing depression levels [68-70]. Many studies support the view that depression and anxiety decrease with participation in regular phys-

ical exercise [7]. However, the opinion that one of the causes of depression is physical inactivity has been known in recent years [71]. Many literature studies have also been conducted on children, young people and the elderly, and as a result, regular participation of individuals from all age groups in exercise activities contributes to depression and depression. In a study conducted by Yıldırım et al. [72]. on university students on this subject, the effect of regular participation in exercise was investigated on the depression levels of university students. It was concluded that the depression levels of the students who regularly participated in physical exercise were lower. In a study conducted by Dishman et al. (2006: 396) on adolescents, it was reported that adolescents' regular participation in exercise significantly reduced their depression levels. In another study by Arslan et al., young women and men were included as participants in the study [67]. Depression levels of men who exercise regularly were found to be significantly lower than women. Another study investigating the effect of participation in team sports on adolescents was conducted by Miller and Hoffman [73]. As a result of the research, the depression levels of adolescents engaged in team sports were significantly lower. has been achieved.

In another study, it was aimed to reveal the effect of participation in exercise on personality traits and self-esteem. In the research conducted by Kuruç and Bayar, regular participation in exercise ensures extroversion and socialization and ensures a healthier and more self-confident personality [74]. It increases self-confidence. Therefore, it has revealed that it contributes to psychological health. Regular participation in exercise gives beneficial results, and thus, participation in exercise is now recommended in the treatment of depression. It is seen that individuals who exercise regularly get rid of depression and enjoy life and increase their life satisfaction thanks to exercise. Regular exercise also provides anger control [75]. Regular participation in exercise also reduces the tendency to violence by providing anger control [12].

Today, it is seen that pilates exercises, as a physical exercise activity, are very effective in protecting and treating mental health as well as physical health. Many studies on this subject have revealed that pilates exercises help protect and improve psychological health by providing body and mind integrity [76]. In another study investigating the effects of pilates on quality of life and psychological health, it was reported that the quality of life of individuals who regularly perform calisthenic-pilates exercises increased, as well as the effect on physical appearance¹⁷, and accordingly, life satisfaction of individuals increased significantly [77].

In the literature, there are research findings that pilates exercises as a physical exercise activity also protect the psychological structure by strengthening mental health [78]. In the research conducted by Akyurt, the psychological health parameters of participation in pilates exercise are self-esteem, quality of life [79]. A study was conducted on male participants in order to examine the effects such as The study revealed that there was a significant increase in the quality of life of the group who received pilates exercise training in addition to exercise training, but reported that there was no significant change in depression levels.

Özbudak aimed to examine the effect of pilates exercises on psychological well-being, job satisfaction and optimism [80]. The research was carried out in the province of Istanbul. 60 members

registered in Myclup and Justfit sports centers participated in the research voluntarily. It has been reported that there is a significant positive effect on optimism and psychological well-being, and the effect of pilates exercises with music on job satisfaction, optimism and psychological well-being is higher.

In the study conducted by Öztürk, the psychological and physical effects of pilates exercises and step-aerobic exercises were examined in women who did not engage in any physical exercise activities [51]. 20 volunteer female participants, who were exercising for the first time and whose average age was 39, participated in the study. The first group was the step-aerobic group. The second group was the pilates exercise group.

In another study investigating the mental and physical effects of Pilates exercises on healthy individuals, 30 women between the ages of 18-55 and working at Private Emsey Hospital in Istanbul participated. It has been reported that there was a significant decrease in the depression and anxiety levels of 30 participants who had clinical pilates exercises [81]. A study was conducted to examine the effect of pilates exercises on the anxiety and stress levels of pregnant women. It has been reported that pilates exercises performed during pregnancy in pregnant women have a significant effect on reducing anxiety and stress levels [82].

A study of Pilates exercises on physically inactive women was conducted with 30 volunteer participants included in pilates exercises programs in different sports clubs in Isparta province. It has been reported that the positive change in the physical appearance of the participants by doing pilates exercises is a significant change in the positive body perception [38].

In another study, the effect of pilates exercises on cognitive disorders such as Alzheimer's, dementia, and Parkinson's in advanced adult ages was investigated. At the end of the research, it was reported that regular participation in pilates exercise protects the cognitive health of older adults and is effective in the treatment of disorders [83,84].

Regular participation in pilates exercise is effective in reducing and improving social anxiety as well as bodily anxiety. Bodily anxiety is the deterioration of body image by dissatisfaction with external appearance. The positive effects of Pilates exercises on physical appearance create a positive body image and self-image. It increases respect. Individuals who are satisfied with their bodies also increase their social anxiety, as their self-confidence and self-esteem increase, so their mental health also changes positively. In literature studies, it has been reported that pilates exercises contribute to psychological health by reducing physical and social anxiety 19 when done regularly [85,86].

Depression Concept

Depression, which is one of the psychological disorders that started with the history of humanity, is a psychological disorder that is also known as a mood disorder from the first doctor Hippocrates to the present. Although depression has been known for centuries, clear and concrete methods for its diagnosis and treatment were not fully available until the mid-1900s. In addition to pharmacological treatments, psychotherapy is also used in the treatment of depression [87].

The concept of depression has been discussed under the title of mood disorders in the literature. Depression is a mood disorder. The individual feels unhappy when depressed. He does not enjoy life and if this situation continues, he shows symptoms that start mildly and worsen, which can lead to deterioration in social functions.

Depression is a psychological disorder in which emotions and behaviors are impaired in such a way that their emotions are excessively increased or they cannot express them at all. While the individual's mood is observed from the outside while depressed, the way the individual expresses his or her experiences is expressed as affect [88].

Individuals usually express their unhappiness and reluctance with the word 'I am depressed'. Feeling depressed is not sufficient for clinical diagnosis of depression. Expressing that the individual feels under intense stress and unable to enjoy life for a while may be necessary but sufficient for clinical diagnosis. The individual must have experienced the symptoms of depression for at least two weeks. A clinical diagnosis is made when the depressed individual becomes unable to manage his/her work and social life, when the sadness or stress he/she experiences becomes unable to meet his/her daily needs lasting longer than 2 weeks and becomes worse with the deterioration of his/her social functions [89].

When the individual is depressed, he feels unhappy, sad and does not enjoy anything. He is hopeless and has a pessimistic mood with the desire to be alone. Symptoms such as pessimism, pessimism and hopelessness in depression start at a mild level and become more severe if not treated. It may result in suicide [90].

Symptoms of depression in the literature; hopelessness, unhappiness, not enjoying life, dissatisfaction, reluctance towards people and life, decreased interest in himself and his surroundings, weakened memory, poor concentration, decreased self-confidence, self-blame, inability to make a decision, not taking any action, inactivity, lack of motivation, more severe symptoms are seen as delusions and thought disorders, and these symptoms are considered when making a clinical diagnosis [90].

Depression has familial, social and economic reasons; There are reasons such as loss of a family member, deterioration of the economic situation, genetic predisposition [91-93].

Depression, which is one of the psychological disorders, is seen twice as often in women as in men. Depression is especially common in middle adult ages. However, depression can also be seen in childhood and advanced adult ages [89]. Although many studies have been conducted on the causes of depression today, no definite information has been reached [94]. Studies conducted on the prevalence of depression in different age groups in the literature have reported that the incidence of depression varies between 4.5% and 34.4% [94-97]. Depression, which is common in the world and in Turkey, has negative economic, social and individual consequences.

The Concept of Anxiety

The concept of anxiety can be defined as the state of feeling uneasy and threatened about any situation or event [98]. Anxiety is

an emotion felt against uncertainty and unknown. There are also physiological symptoms [99].

Some of the causes of anxiety that impair psychological health in the literature can be listed as follows;

- The individual's lack of interest and compassion from his/her close environment or the decrease in the support he/she expects from his/her relatives such as interest, tolerance and compassion.
- Having an unsuccessful and bad outcome expectation regarding any event or situation.
- The individual's conflict with an unexpected result.
- The level of anxiety rises against the unknowns about the future.

People cannot set goals in the face of uncertainties and their hopelessness about the future causes them to experience intense anxiety [98].

Intense anxiety that causes deterioration in psychological health can also have experiential causes such as genetic predisposition and exposure to intense stress. There are many reasons, especially past traumas, job loss, loss of a loved one, economic losses, and wars [100]. Anxiety is handled by the existential approach, the development of awareness and the necessity of being human. Therefore, some theoretical approaches have been developed regarding the causes of anxiety. Existentialists define anxiety as a concept necessary for change and development. Humans must experience death anxiety so that they know that they exist and those around them. For existentialists, anxiety is seen as a necessary concept for people to confront themselves and their existence [99].

Anxiety, which disrupts the psychological health of the individual, also has consequences that disrupt the physical and physiological health. The physical symptoms of the individual, who feels intense mental anxiety, are intense sweating, tremors, palpitations, deterioration of motor control, deterioration in the digestive and excretory system, therefore, hormone release due to the deterioration of the autonomic nervous system. Deteriorations such as excessive increase or decrease can be seen. First of all, symptoms such as confusion, fear, lack of confidence, anger are observed in the individual who feels psychologically anxious, and with the reflection of these symptoms on the body, the physical health of the individual deteriorates as well as the mental health of the individual [101]. Negative and physical consequences affect the life of the individual negatively. It causes failures in business and social life. In addition to the negative consequences of anxiety, anxiety in some individuals is a development that triggers success, increases psychological resilience and psychological resilience, strengthens the individual, and increases his/her struggle against life. It can also provide growth [102].

Anxiety in the duration and severity that will cause the deterioration of psychological health causes individuals to feel helpless, to break their self-confidence and accordingly to increase their failures and thus to be unhappy. Especially the anxiety, helplessness and failures experienced in childhood affect the success of the individual in adulthood. Individuals who do not receive enough support in childhood They cannot learn to cope with anxiety and

cannot become a psychologically healthy adult [103].

Feeling anxiety is an emotion that sometimes triggers success. When an individual experiences anxiety such as failure, loss or fear, he or she can take precautionary measures to experience feelings such as success, winning and feeling strong. In this way, anxiety can be characterized by its positive features as well as the aspect that activates the individual [104].

Anxiety disorders, as a psychological disorder, have a very high incidence in societies. In literature research on anxiety disorders, studies with different groups such as age, occupation, and gender have been conducted to examine anxiety levels. It was reported that the anxiety levels of undergraduate students were moderate, and it was reported that 24.3% of the students participating in the study had a moderate level of anxiety, 13.8% of the participants had a high level of anxiety and 6.6% of the students were mildly anxious.

Anxiety levels of patients hospitalized in university hospitals were examined by [105]. 480 patients participated in the study. Anxiety disorders were observed in 24.5% of those who participated in the study. Anxiety levels of heart and lung patients were examined by [106]. In the study, it was reported that 53.5% of the patients diagnosed with heart and respiratory diseases had anxiety disorders.

The anxiety levels of doctors working in the hospital were investigated by Demiral et al. [107]. 153 doctors participated in the study, and it was reported that 18.9% of the doctors had anxiety disorders as a result of the research. In a study, the anxiety levels of overweight individuals with eating disorders were examined. As a result of the research conducted on 53 participants, it was reported that 5.7% of the participants had anxiety disorders.

The Concept of Life Satisfaction

Life satisfaction is a concept that positive psychology is interested in, which expresses that people get pleasure by meeting their expectations from life by living according to the standards they set and target, and lead a physically and mentally healthy life by providing satisfaction in their business and professional lives. It also includes concepts such as quality of life, psychological well-being, self-compassion, optimism, and job satisfaction [108]. Concepts such as subjective well-being, quality of life, and psychological health, which are sub-titles of life satisfaction in the literature, stand alone. It is seen that it is used as terms expressing life satisfaction in Turkey [109].

According to studies on how individuals' life satisfaction varies and which factors affect it, demographic characteristics such as age, gender, income level, marital status affect life satisfaction. The effect of these factors is explained as follows:

Age: While life satisfaction is high in childhood, a decrease is observed in life satisfaction when it comes to adolescence. As individuals reach their goals as they get older, on the other hand, as their responsibilities increase, individuals who can fulfill their responsibilities by reaching their goals in middle adulthood enjoy life and their quality-of-life increases. This increases life satisfaction. Individuals who cannot reach their goals, on the other hand, cannot improve their quality of life in middle-advanced adult ages,

so their life satisfaction decreases. From this point of view, life satisfaction varies with age [110].

Gender: Being a woman or a man alone is not a factor that explains life satisfaction. Gender factor, when considered together according to age, income level and even culture, affects life satisfaction. Besides studies showing that middle-aged women have higher life satisfaction than middle-aged men There are also studies reporting that women's life satisfaction is lower than men, especially middle-aged women, compared to men. Gender affects life satisfaction depending on age and income level [110].

Income level: Although it is one of the most important factors affecting life satisfaction, life satisfaction levels increase as the income of individuals with low-income level increases. The higher income level of individuals with high income level does not have an effect on their life satisfaction. There is no direct relationship between satisfaction and income level. The effect of income level on life satisfaction is effective as long as it meets basic needs. Since they cannot meet with income, their life satisfaction does not increase with income and it affects life satisfaction in different factors [108, 110-111].

Marital status: Marriage, which significantly affects the lives of individuals, is an important factor of life satisfaction. It is seen in research that married individuals have higher life satisfaction than divorced, widowed, single individuals [110].

Educational level: Although education is an important factor of life satisfaction, it is seen in studies that individuals with high education levels have low life satisfaction and vice versa. life satisfaction levels can be low in educated individuals [110].

Satisfaction with life does not depend on a single factor. Meeting one's expectations in his entire life affects life satisfaction. As long as individuals succeed in reaching their goals in all areas of their life such as work, profession, and family, their life satisfaction is high [112].

The development in the economic and social levels of the societies also affects the life satisfaction of the individuals. If the income level of the country they live in is high and the health, education and social needs of the individuals are met as a social state, the life satisfaction levels are higher. and as long as they can benefit from social opportunities, their life satisfaction increases [112].

Research on the Subject

In the study conducted by Almazan et al. with 110 female participants over the age of 60, it was aimed to investigate the physical and mental effects of pilates exercises in women after menopause [113]. 110 female participants were divided into two groups of 55 people, each being the control and the experimental group: The experimental group was given pilates exercises for 12 weeks. During this period, no physical exercise was given to the control group. A significant decrease was reported compared to

In another study conducted by Akbaş and Ünver on young adult women between the ages of 18-25, the psychological and physical effects of participating in pilates exercises were examined [7]. 51 young adult women participated in the study. group and 26 peo-

ple in the control group, the group that did not have any physical exercise activities. It has been reported that there is a significant decrease in anxiety and depression levels, which are among the parameters of the control group.

Dağ et al. investigated the effect of participation in exercise on life satisfaction of male and female sports trainers working as trainers in sports clubs [114]. A study was conducted on whether the effect of participation in other exercise types and pilates exercise on life satisfaction differs according to gender. At the end of the study, it was reported that the increase in the life satisfaction levels of the participants participating in pilates exercises was higher than the life satisfaction levels of the participants participating in other types of exercise, and the increase in life satisfaction levels did not differ according to gender. has been done. Cruz-Ferreira et al. investigated the effect of pilates-mat exercises on life satisfaction in adult women [115]. The study, in which 62 adult female participants participated, was divided into two groups as experimental and control groups. It was concluded that it increased the satisfaction.

In a meta-analysis study conducted by Fleming and Herring, the results of one-year research on the effect of pilates on psychological health in 2017 were examined [116]. Research conducted in 2017 was accessed from the Cochrane Controlled Trial Register, Web of Science, Pubmed, PsychINFO, Science Direct, Sport Discuss, Medline and Cinahl databases. When studies are examined, it has been reported that pilates exercises reduce depression and anxiety and therefore have a positive effect on psychological health.

Vieira et al. aimed to examine the effect of pilates on the quality of life [117]. In the study, middle-aged and older adults who had been doing pilates exercises for a long time and had just started pilates were included as participants. It has been reported that pilates has a positive effect on the quality of life in individuals who do pilates, and this effect is higher in individuals who do pilates exercises for a long time.

A study was conducted by Mokhtari et al. on how participation in pilates exercise has an effect on the depression levels of elderly individuals [118]. The study, in which 30 elderly individuals participated, lasted 12 weeks. At the end of 12 weeks, participants who regularly participated in pilates exercise reported a significant decrease in their depression levels. has been done.

Hassan and Amin took 10 women between the ages of 30-35 as a sample in order to examine the effect of pilates exercises on physical and mental structure [45]. The study, which consisted of 10 female participants, lasted 12 weeks. As a result of the research, pilates regularly for 12 weeks. It has been reported that there is a significant decrease in depression levels, which is one of the psychological health parameters of participation in exercise.

A qualitative study was conducted by Öztürk to examine the effect of participation in pilates exercises on psychological health [119]. 32 women who did pilates exercises for a long time participated in the study. Eyigör et al. aimed to examine the effect of participation in pilates exercises on the level of depression [120]. For this purpose, women between the ages of 45-55 were recruited as participants and regularly applied pilates exercise for 8 weeks. In another

study by Halis et al., regular participation in pilates exercises in women between the ages of 20-50 has a significant decrease in depression levels and has a positive effect on psychological health. It has been reported to have a significant effect [121].

Conclusion and Suggestions

Scientific studies have shown that participation in pilates exercises decreases depression and anxiety levels and significantly increases life satisfaction. In this respect, it can be said that it can contribute to psychological health.

In recent years, it has been seen that individuals have faced many problems that cause anxiety and depression, and their psychological health has deteriorated. Individuals whose psychological health has deteriorated cannot enjoy life and become unhappy. The goals and hopes of these individuals for life also decrease. Suggestions can be made about directing him to pilates exercises and acquiring regular exercise habits. However, the relationship between depression and anxiety and pilates exercises needs more empirical research. Studies show that participation in Pilates exercises has a positive effect on life satisfaction. Having individuals with high life satisfaction in social life is necessary for a healthy society. Individuals with high life satisfaction are happy and peaceful in their work, professional and family lives. From this perspective, individuals whose life satisfaction levels increase by participating in pilates exercise can attain a healthy physical and psychological structure. Healthy generations can be raised in a society where individuals are in the majority. Pilates exercises can be popularized as a type of exercise that does not require much equipment, low cost, can be done anywhere, can be easily learned individually or as a group, and can be done alone. In addition to psychotherapy, pilates exercises can be recommended to individuals who receive psychological help [122-130].

References

1. Kaya F, Şimşek B and, Erzeybek MS (2018) The Tendency of Young Population to Do Sports and Participate in Physical Activity in Southeastern Anatolia: The Case of Batman Province, Turkey. *Sports Education Journal* 2: 31-57.
2. Gönülaş S, Saygın Ö, Babayigit-İrez (2010) The Effect of Regular Walking Program on Health-Related Physical Fitness Elements and Blood Lipids in Women aged 40-55 years. *International Journal of Human Sciences* 7: 962-963.
3. Özdemir R A, Babayigit-İrez G (2010) The Effect of 12-Week Pilates Practices on Perceived Subjective Health in Women Over 65. *Journal of Sport Sciences* 21: 37-48.
4. Avşar Z (2019) Investigation of the Effects of Pilates Exercises Applied to Sedentary Women on Some Anthropometric Properties and Performance. Master Thesis. Isparta: Süleyman Demirel University SBE.
5. Ozdemir O NS and Uysal M F (2017) The Effect of Pilates Exercises on Quality of Life and Depression in the Postmenopausal Period. *ACU Health Science Journal* 9: 25-32.
6. Vancini RLV, Rayes ABR, Lira CAB, Sarro KJ and Andrade MS (2017) Pilates And Aerobic Training Improve Levels Of Depression, Anxiety And Quality Of Life In Overweight And Obese Individuals. *Arq Neuropsiquiatr*. 75: 850-857.
7. Akbaş E, Ünver B (2018) A Six-Week Pilates Exercise Protocol For Improving Physical and Mental Health-Related Parameters. *Bülent Ecevit University Faculty of Health Sciences*

- Department of Physiotherapy and Rehabilitation 7: 65-79.
8. Özocak O, Başçıl S G, Golugli A (2019) Exercise and Neuroplasticity. *Journal of Düzce University Health Sciences Institute* 9: 31-38.
 9. Pin-Barre C and Laurin J (2015) Physical Exercise as a Diagnostic, Rehabilitation and Preventive Tool: Influence on Neuroplasticity and Motor Recovery after Stroke. *Review Article* 1-12.
 10. Damdelen M (2016) The Effect of Pilates on Balance in Healthy Individuals. Master Thesis. Halic University SBE.
 11. Soyuer F and Soyuer A (2008) Aging and Physical Activity. *Journal of İnönü University Faculty of Medicine* 15: 219-224.
 12. Dever A (2010) Sports Sociology. Istanbul: Title Publications Open Journal of Social Sciences 9.
 13. Şahin M, Yetim AA, Çelik A (2012) Sport as a Protective Factor in the Development of Psychological Resilience and Sport and Physical Activity as a Protective Factor. *The Journal of Academic Social Science Studies* 5: 373-380.
 14. Shedden M and Kravitz L (2006) Pilates Exercise: A Research-Based Review. *J DanceMedSci* 10:111-116.
 15. Gülşen M (2019) Evaluation of Pilates Training on body awareness and social appearance anxiety in university students. *European Journal of Physical Education and Sport Science* 5: 56-65.
 16. Geweniger V and, Bohlander A (2017) Pilates manual: Exercises with sahibindenatos mat. G. Baltacı and A. Aytar (trans.), Ankara: Hipokrat Publishing House. (original print date 2017).
 17. Angin E (2012) The Effects of Pilates Exercises on Bone Mineral Density, Physical Performance and Quality of Life in Postmenopausal Women with Osteoporosis. Master Thesis. Ankara: Hacettepe University SBE.
 18. Şimşek D and Şimşek K Y (2011) Situation Analysis of Pilates: Example of Eskişehir Province. *Journal of Anadolu University School of Physical Education and Sports*. 13: 187-193.
 19. Şimşek D and Katırcı H (2011) The Effects of Pilates Exercises on Postural Stability and Sports Performance: A Systematic Literature Review. *Niğde University Journal of Physical Education and Sport Sciences* 5: 58-70.
 20. Ersoy I C (2008) The Effect of Walking and Pilates on Body Composition in Middle Aged Women. Master Thesis. Izmir: Dokuz Eylül University SBE.
 21. Eroglu N (2011) The Effect of Clinical Pilates Exercises on Physical Fitness in Healthy People. Master Thesis. Ankara: Hacettepe University SBE.
 22. McNeill W (2011) Decision making in Pilates. *Journal of Bodywork and Movement Therapies* 15:103-107.
 23. Unal E (2015) Evidence-Based Exercise Approaches in Physiotherapy. Ankara: Pelikan Publishing.
 24. Alpers AT, Segel RT (2011) Pilates in All Aspects. A. Bayrakçı (trans.), Ankara: Friend: (original publication 2009).
 25. Latey P (2001) The Pilates Method: History and Philosophy. *Journal of Bodywork and Movement Therapies* 5: 275-282.
 26. Kilpatrick M (2005) College Students' Motivation for Physical Activity: Differentiating Men's and Women's Motives for Sport Participation and Exercise. *Journal of American College Health* 54: 87-94.
 27. Kokino S, Tuna H, Yıldız M (2004) Obesity, Physical Activity and Rehabilitation. *Journal of Trakya University Faculty of Medicine* 7: 93- 98.
 28. Allender S, Cowburn G, Foster C (2006) Understanding Participation In Sport and Physical Activity Among Children and Adults: A Review Of Qualitative Studies. *Health Education Research* 21: 826-835.
 29. Jacicic J M ve, Otto A D (2005) Physical Activity Considerations For The Treatment And Prevention Of Obesity. *American Society for Clinical Nutrition* 82: 226-229.
 30. Schmitt N M, Schmitt J, and Dören M (2009) The Role Of Physical Activity In The Revention Of Osteoporosis In Postmenopausal Women. *Clinical Research Center of Women's Health* 63: 34-38.
 31. Sritara C, Thakkestian A, and Pornsuriyasak P (2015) Work and Travel related Physical Activity and Alcohol Consumption: Relationship With Bone Mineral Density and Calcaneal Quantitative Ultrasonometry. *Journal of Clinical Densitometry: Assessment & Management of Musculoskeletal Health* 18: 37-43.
 32. Altıntaş D (2006) The Effects of Pilates Exercises on Physical Fitness. Master Thesis. Istanbul: Marmara University SBE.
 33. Gökçelik A (2017) The Effect of Pilates Exercises Applied to University Students on Body Composition and Some Motoric Features. Master Thesis. Bartın: Bartın University EBE.
 34. Karadenizli Z İ Ve, Kambur B (2016) The Effect of Pilates-Reformer Exercises on Thigh Circumference and Hamstring Flexibility in Sedentary Women. *İnönü University Journal of Physical Education and Sport Sciences* 3: 48-62.
 35. Katayifçi N, Düğer T, and Ünal E (2014) The Effect of Clinical Pilates Exercises on Physical Fitness in Healthy Individuals. *Journal of Exercise Therapy And Rehabilitation* 1:17-25.
 36. Keskin K, Inan M, Honey M, Ozden B, Yurtbaşı O, et al. (2018) A Needs Analysis Study for Pilates Trainer Education. *Journal of Physical Education and Sports Research* 10: 62-69.
 37. Liman-Ozturk N (2008) The Effect of Aerobic-Step and Pilates Exercises on Strength, Flexibility, Anaerobic Power, Balance and Body Composition. Master Thesis. Ankara: Gazi University SBE.
 38. Tekin-Demir Y (2013) Investigation of the Effect of Pilates Exercises on Physical Characteristics and Body Image in Middle Age Sedentary Women. Master Thesis: Isparta: Süleyman Demirel University SBE.
 39. Topyıldız E (2017) The Effect of Pilates Exercises on Body Composition and Basal Metabolism of Women in Different Age Groups. Master Thesis: Istanbul: Halic University SBE.
 40. Şahinci-Gökgül B (2013) The Effect of Eight-Week Cyclical Exercise and Pilates Exercises on Some Physical Properties and Blood Fats in Women. Master Thesis. Nigde: Nigde University SBE.
 41. Reilly J J, Kelly L, Montgomery C, Williamson A, Fisher A, et al. (2006) Physical Activity To Prevent Obesity In Young Children: Cluster Randomized Controlled Trial. *bmj* 333: 1041.
 42. Houwen S, Hartman E ve, Visscher C (2009) Physical Activity and Motor Skills in Children With And Without Visual Impairments. *Medicine & Science in Sports & Exercise* 41: 103-109.
 43. Graf C, Koch B, Kretschmann-Kandel E, Falkowski G, Christ H, et al. (2004) Correlation between BMI, leisure habits and motor abilities in childhood 28: 22-26.
 44. Gültekin D (2016) The Effect of Aero-Pilates Study on Some

- Physical Fitness Values of University Students. Master Thesis. Muğla Sıtkı Koçman University SBE.
45. Hassan E A H ve, Amin M A (2011) Pilates Exercises Influence On The Serotonin Hormone, Some Physical Variables And The Depression Degree In Battered Women. *World Journal of Sport Sciences* 5: 89- 100.
 46. Kara-Kaya B (2019) The Effect of Clinical Pilates Exercises on Cognitive Functions and Movement Speed in Young Adults. Master Thesis. Istanbul: Istanbul University EBE.
 47. Karakaş M M (2017) Investigation of the Effects of Pilates Exercises on Joint Range of Motion and Some Flexibility Parameters in Sedentary Women aged 30-60 years. Master Thesis. Istanbul: Gelisim University SBE.
 48. Keskin K C (2018) The Effect of Pilates Exercises on Body Composition in Women. Master Thesis. Ankara: Gazi University SBE.
 49. Kovach M V, Plachy J K, Bogнар J, Balogh Z O, Barthols I (2013) Effects Of Pilates And Aqua Fitness Training On Older Adults Physical Functioning And Quality Of Life. *Semmelweis University Faculty of Physical Education and Sport Sciences* 4: 22-27.
 50. Ozcan B (2017) Life Satisfaction and Self-Efficacy Levels of Exercising and Non-Exercise Obese Women. Master Thesis. Mersin: Mersin University EBE.
 51. Ozturk F (2014) Investigation of the Effects of Eight Weeks of Step-Aerobic and Pilates Exercise on Structural Biomotoric and Psychological Properties in Sedentary Women. Master Thesis. Çanakkale: 18 Mart University SBE.
 52. Smith K and Smith E (2005) Integrating Pilates-Based Core Strengthening Into Older Adult Fitness Programs: Implications For Practice. *Topics in Geriatric Rehabilitation* 21:57-67.
 53. Küçük V and Koç H (2004) The Relationship between Human and Sports in the Process of Psycho-Social Development. *Dumlupınar University Journal of Social Sciences* 2004: 1-11.
 54. Richardson C R, Faulkner G, McDevitt J, Skrinar G S, Hutchinson D S, et al. (2005) Integrating Physical Activity Into Mental Health Services for Persons With Serious Mental Illness. *Psychiatr Serv* 56: 324-331.
 55. Başar S, Sarı İ (2018) The Effect of Regular Exercise on Depression, Happiness and Psychological Well-Being. *İnönü University Journal of Physical Education and Sport Sciences* 5: 25-34.
 56. Hassmen P, Koivula N, Uutela A (2000) Physical Exercise and Psychological Well-Being: A Population Study in Finland, Department of Psychology, Stockholm University 30:17-25.
 57. Salar B, Physician M, Tokgöz M (2012) Comparison of Emotional Conditions of 15-18 Age Group Individuals Doing Team and Individual Sports. *Mehmet Akif Ersoy University Journal of Social Sciences Institute* 4: 123-135.
 58. Şahin M (2015) The Effect of Aerobic Exercise on Cortisol, Insulin and Glucagon Hormone Levels in Elite Athletes. Master Thesis. Konya: Selcuk University SBE.
 59. Bailey R (2006) Physical Education and Sport in Schools: A Review of Benefits and Outcomes. *Journal of School Health* 76: 397-401.
 60. Lautenschlager L and Smith C (2007) Understanding Gardening and Dietary Habits Among Youth Garden Program Participants Using The Theory Of Planned Behavior. *Appetite* 49:122-130.
 61. Penedo F J and Dahn J R (2005) Exercise And Well-Being: A Review Of Mental And Physical Health Benefits Associated With Psychological Activity. *Current Opinion in Psychiatry* 18: 189-193.
 62. Meydanlioglu A (2015) Biopsychosocial Benefits of Physical Activity in Children. *Current Approaches in Psychiatry* 7: 125-135.
 63. Shah S (2013) Pilates Exercises. *International Journal of Physiotherapy and Research*. 1:196-203.
 64. Cam E (2004) Stress in Working Life and Women Employees in the Public Sector, *International Journal of Human Sciences* 2004: 1-10.
 65. Demirel E T (2013) The Effect of Occupational Stress on Job Satisfaction: The Mediating Role of Organizational Support. *Nigde University Journal of FEAS*. 6: 221-222.
 66. Ströhle A (2009) Physical Activity, Exercise, Depression and Anxiety Disorders. *Journal of neural transmission* 116: 777-784.
 67. Arslan C, Gullu M, Tural V (2011) An Investigation of Depression Status of Primary School Students Who Doing and Not Doing Sports According to Some Variables. *Niğde University Journal of Physical Education and Sport Sciences* 5: 122-123.
 68. Harris R (2006) Embracing Your Demons: an Overview of Acceptance and Commitment Therapy. *Psychotherapy in Australia* 12: 79-98.
 69. McKercher C M, Schmidt M D, Sanderson K A, Patton G C, Dwyer T, et al. (2009) Physical Activity And Depression In Young Adults. *American Journal of Preventive Medicine* 36: 161-164.
 70. Teychenne M, Ball K, Salmon J (2008) Physical Activity and Likelihood of Depression in Adults: A Review. *Preventive Medicine* 46: 397-411.
 71. Roshanaei-Moghaddam B, Katon WJ, Russo J (2009) The Longitudinal Effects Of Depression On Physical Activity. *General Hospital Psychiatry* 31: 306-315.
 72. Yıldırım İ, Özşevik K, Özer S, Canyurt E and Tortop Y (2015) The Relationship between Physical Activity and Depression in University Students. *Niğde University Journal of Physical Education and Sport Sciences* 9: 32-39.
 73. Miller K E and Hoffman J (2009) Mental Well-Being and Sport Related Identities In College Students. *Sociology of Sport Journal* 26: 335-356.
 74. Koruc Z and Bayar P (2004) The Place and Effects of Exercise in the Treatment of Depression. *Hacettepe University Journal of Sport Sciences* 15: 49-64.
 75. Zorba E (2006) Lifetime Sport. Nobel Publications, Ankara (2006).
 76. Caldwell K, Harrison M, Adams M, Triplett N T (2009) Effect of Pilates And Taiji Quan Training On Self-Efficacy, Sleep Quality, Mood, And Physical Performance Of College Students. *Journal of Bodywork Movement Therapies* 13:155-163.
 77. Vergili O (2012) The Effects of Calisthenic and Pilates Exercises on Health-Related Quality of Life in Healthy Sedentary Women. *Kirikkale University Medical Faculty Journal* 14:14-20.
 78. Hita-Conteras F, Perez M C ve, Cruz D L T (2015) Short and Long Term Effects Of A Six-Week Clinical Pilates Program In Addition To Physical Therapy On Postmenopausal Women

- With Chronic Low Back Pain: A Randomized Controlled Trial. *Disability and Rehabilitation* 38: 1300-1308.
79. Akyurt S (2019) Pilates Exercises Added to Exercise Training in Healthy Male Individuals; Flexibility, Self-Esteem and Impact on Quality of Life. Master Thesis. Istanbul: Halic University EBE.
 80. Ozbudak S (2019) The Effect of Musical and Non-Music Pilates Exercises on Job Satisfaction, Optimism and Psychological Well-Being. Science Specialization Thesis. Kocaeli: Kocaeli University SBE.
 81. Topuz B (2014) Physical and Psychological Effect of Clinical Pilates on Healthy Individuals. Master Thesis: Istanbul: Halic University SBE.
 82. Muller A, Hammill H V, Hermann C (2016) The Effects of Pilates and Progressive Muscle Relaxation Therapy on Maternal Stress and Anxiety: a Literature Review. *International Journal of Humanities and Social Science* 6:195-203.
 83. Kayaoğlu B ve, Özsu İ (2019) The Effects of 12 Weeks Pilates Exercises on Functional and Cognitive Performance in Elderly People. *Health Sciences Institute*. 7, 71-75.
 84. Pandya S, Nagendran T, Shah A, and Chandrabharu V (2017) Effect of Pilates Training Program on Balance in Participants with Idiopathic Parkinson's Disease - an Interventional Study. *Int J Heal sci pic* 7: 186-196.
 85. Yeliz DOĞRU (2019) Comparison of Social Physique Anxiety of Fitness and Pilates Exercise in Women. İzmir Katip Celebi University Department of Sports Turkish Journal of Sports and Exercise 21: 411-414.
 86. Korkmaz N (2010) The Effects of Pilates Exercises on Social Physical Anxiety Levels in Patients with Fibromyalgia Syndrome. Master Thesis. Bursa: Uludag University EBE.
 87. Ozgan Y A (2012) Depression. *Cerrahpaşa Student Scientific Journal* 5: 1-6.
 88. Karamustafaoğlu O and Yumrukçal H (2011) Depression and Anxiety Disorders. *Şişli Etfal Hospital Medical Bulletin* 45: 65-74.
 89. Koroglu E (2006) What is depression? How to Deal?. Istanbul: HYB Publications.
 90. Koknel O (2005) Mental Depression: Depression. Istanbul: Altın Kitaplar Publishing House
 91. Boztas M H, Arisoy O (2010) Depression in Medical Diseases. *Diagnostic Problems. Current Approaches in Psychiatry* 2: 318-329.
 92. Turkcapar H (2009) Depression; Cognitive Behavioral Therapy in Clinical Practice. Ankara: HYB Publishing.
 93. Kaya C (2017) Investigation of Inpatients Diagnosed with Depression and Inpatients Diagnosed with Substance Addiction in Terms of Social Stigma. Master Thesis. Istanbul: Üsküdar University SBE.
 94. Taştan S and Torun A (2016) Investigation of Post-Traumatic Stress Disorder's Relationship with Perceived Psychological Dissonance, Future Expectations, Uncontrollability of Life and Workplace Attitudes. 4th Organizational Behavior Congress 2016: 354-355.
 95. Karataylı S (2007) Inter-Trimester Depression, Anxiety, Other Mental Symptoms and Quality of Life Levels in Pregnants. Selçuk University Department of Psychiatry 2007: 5-44.
 96. Kocataş S, Güler G, Güler N (2004) Prevalence of Depression in Individuals aged 60 and over. *Journal of Atatürk University School of Nursing* 7.
 97. Üstün A and Bayar A (2015) Examination of University Students' Depression, Anxiety and Stress Levels According to Various Variables. *Journal of Education and Instructional Studies* 4: 381-390.
 98. Karaman S (2009) State and Trait Anxiety Levels of University Students Studying in Health-Related Programs. Master Thesis. Kayseri: Erciyes University SBE.
 99. Ozturk A (2008) The Relationship Between State and Trait Anxiety Levels and Academic Achievement of Students of Manisa Celal Bayar University School of Physical Education and Sports Teaching Program. Master Thesis. Manisa: Manisa Celal Bayar University SBE.
 100. Tunç T and Özen-Kutanis R (2015) Causes of Anxiety in Doctors and Nurses: A University Hospital Example. *Suleyman Demirel University Visionary Journal* 6: 62-71.
 101. Kaya M and Varol K (2004) State-Trait Anxiety Levels and Causes of Anxiety of Theology Faculty Students (Samsun Example). *Journal of 19 Mayıs University Faculty of Theology* 17: 31-63.
 102. Dilmaç O (2010) An Investigation of Visual Arts Teacher Candidates' Anxiety Levels in Terms of Various Variables. *Journal of the Fine Arts Institute* 24: 49-64.
 103. Akinalp D (2013) The Effect of Anxiety Levels of Employees on Performance Perceptions. Master Thesis. Istanbul: Marmara University SBE.
 104. Akgun A, Gonen S, Aydın M (2007) An Investigation of Anxiety Levels of Elementary Science and Mathematics Teaching Students According to Some Variables. *Electronic Journal of Social Sciences* 20: 283-289.
 105. Ofllaz F, Varol H (2010) Investigation of anxiety and depression levels of inpatients and related factors. *Journal of SDU Faculty of Medicine* 17: 1-7.
 106. Aydemir Y, Doğu Ö, Amasya A, Yazgan B, Gazioğlu E, et al. (2015) Evaluation of Anxiety and Depression Frequency and Associated Features in Chronic Respiratory and Heart Diseases. *Sakarya Med J* 5: 199-203.
 107. Demiral Y (2006) The Effect of Job Satisfaction on Anxiety and Depression Levels in Physicians Working in University Hospital. *DEU Journal of Medicine Faculty* 20: 157-164.
 108. Güllüoğlu-İşık Ö Ve, Koçak Ö F (2014) Investigation of Life Satisfaction of Communication Faculty Students in Terms of Different Variables. *Selcuk University Faculty of Communication* 8: 281-300.
 109. Göker Y (2013) Investigation of Life Satisfaction and Attitudes of Foreign University Students Studying in Turkey towards Psychological Assistance. Master Thesis. Ankara: Gazi University EBE.
 110. Kocak O F (2016) The Relationship between Interpersonal Conflicts and Life Satisfaction: A Study on University Students. *International Journal of Social Studies* 9: 1956-1977.
 111. Diener E (2000) Subjective Well-Being, The Science of Happiness and A Proposal For A National Index. *American Psychologist* 55: 34.
 112. Diener E, Oishi S, Lucas R E (2003) Personality, Culture, And Subjective Well-Being: Emotional And Cognitive Evaluations Of Life. *Annu Rev Psychol* 54: 403-420.
 113. Almazan A A, Conteras F H, Diaz D C, Cruz M T, Garcia J D, et al. (2019) Effects Of Pilates Training On Sleep Quality, Anxiety, Depression and Fatigue In Postmenopausal Women: A Randomized Controlled Trial 124: 62-67.

114. Dağ A, Korkutata A, Özavcı R (2019) Investigation of Subjective Well-Being Levels and Life Satisfaction of the Personnel Working in Sporting Event Enterprises in Terms of Some Variables. *International Journal of Sport, Exercise & Training Science* 5: 154-162.
115. Cruz-Ferreira A, Fernandes J, Gomes D, Bernardo L M, Kirkcaldy B D, et al. (2011) Effects of Pilates-Based Exercise on Life Satisfaction, Physical Self-Concept and Health Status in Adult Women. *Women & Health* 51: 240-255.
116. Fleming K M, Herring M P (2018) The Effects Of Pilates On Mental Health Outcomes: A Meta-Analysis Of Controlled Trials. Department of Physical Education and Sport Sciences.
117. Vieira F T D, Faria L M, Wittmann J I, Teixeira W and Nogueira L A C (2013) The Influence Of Pilates Method In Quality Of Life Of Practitioners. *J Bodyw Mov Ther* 17: 483-487.
118. Mokhtari M, Nezakatalhossaini M and Esfarjani F (2013). The Effect Of 12-Week Pilates Exercises On Depression And Balance Associated With Falling In The Elderly, *Procedia - Social and Behavioral Sciences* 70:1714-1723.
119. Ozturk F (2019) Pilates Method As A Kind Of Mind Body Practice Women Practitioners Opinions On Their Physical And Psychological Wellbeing. PhD. Ankara: Middle East Technical University.
120. Eyigör S, Karapolat H, Durmaz B, Uslu R, Yeşil H (2010) Effects Of Pilates Exercises On Functional Capacity, Flexibility, Fatigue, Depression And Quality Of Life In Female Breast Cancer Patients: A Randomized Controlled Study. *Physical Therapy and Rehabilitation Department, Faculty of Medicine* 46: 481-487.
121. Halis F, Yıldırım P, Kocaaslan R (2016) Pilates for Better Sex: Changes in Sexual Functioning in Healthy Turkish Women After Pilates Exercise. *Journal of Sex & Marital Therapy* 42: 302-311.
122. Akgul A (2016) Investigation of the Effects of Aero-Plates and Strength Exercises Applied on Sedentary Women on Physical and Strength Properties. Master Thesis. Isparta: Süleyman-Demirel University SBE.
123. Juniper F (2014) Health Benefits of Exercise. *Turkish Phys. Medicine Rehab. Magazine*. 2: 9-14.
124. Barnett L M, Beurden E V, Morgan P J, Brooks L O, Beard J R (2008) Childhood Motor Skill Proficiency as a Predictor of Adolescent Physical Activity. *New York Academy of Medicine* 44: 252-259.
125. Dishman R K, Hales D P, Ward D S, Pfeiffer K A, Felton G, et al. (2006) Physical Self-Concept and Self-esteem Mediate Cross-Sectional Relations of Physical Activity and Sport Participation with Depression Symptoms Among Adolescent Girls. *Health Psychology* 25: 396-407.
126. Eren İ, Erdi Ö (2003) The Frequency of Psychiatric Disorders in Obese Patients. *Clinical Psychiatry* 6: 152-157.
127. Fisher A, Reilly J J, Kelly L A, Montgomery C, Williamson A, et al. (2005) Fundamental Movement Skills And Habitual Physical Activity In Young Children. *Medicine & Science in Sports & Exercise* 37: 684-688
128. Ramazanoğlu F, Karahüseyinoğlu F M, Demirel E T, Ramazanoğlu M O, Altungul O (2005) Evaluation of the Social Dimensions of Sports. *Firat University Journal of Oriental Studies* 3:153-157.
129. Wrotniak B H, Epstein L H, Dorn J M, Jones K E, Kondilis V A (2006) The Relationship Between Motor Proficiency And Physical Activity In Children. *Pediatrics* 118:1758-1765.
130. Orphan A A (2005) *Sociology and Sport*. Istanbul: Morpa Culture Publications (2005).

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