

PILATES METHOD AS A KIND OF MIND BODY PRACTICE: WOMEN
PRACTITIONERS' OPINIONS ON THEIR PHYSICAL AND
PSYCHOLOGICAL WELLBEING

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ABSTRACT

PILATES METHOD AS A KIND OF MIND BODY PRACTICE: WOMEN PRACTITIONERS' OPINIONS ON THEIR PHYSICAL AND PSYCHOLOGICAL WELLBEING

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As a mind-body practice, Pilates is a method of strengthening and stretching the body with mental focus and controlled breathing according to basics of anatomy and body mechanics, consists of exercises on mat and with machines. J. H. Pilates developed it at the beginning of 1900s favoured for physical rehabilitation, performance enhancement, and positive psychological effects. The purpose of this study was to determine women Pilates practitioners' opinions on their physical and psychological wellbeing. Qualitative research method was used to reveal those opinions. Systematic steps of basic qualitative research design were applied. 32 women Pilates method mat practitioners living in Ankara were selected through purposive and convenience-sampling methods. Data was collected through a semi-structured interview method. One-to-one meetings of face-to-face and telephone interviewing were conducted by tape recording. According to generic form of qualitative content analysis approach, qualitative data was collected, analyzed for themes, themes were reported, reports were written, and interpretations were

made. The findings showed that Pilates method had positive effects on participants' well-being on physical and psychological health parameters, awareness of their self on personality properties, overcoming negative thoughts and coping with stress, improving mindfulness and concentration, efficiency at work and daily tasks, and satisfaction regarding interpersonal relationships. From these effects, physical benefits seemed in a wide range and more influential. This may suggest that Pilates method is mostly considered with its physical benefits results in more action oriented effects created psychological contributions besides behavioral and social ones.

Keywords: Pilates Method, Mind-Body Practice, Physical Benefits, Psychological Benefits, Social Benefits

ÖZ

ZİHİN-BEDEN UYGULAMASI OLARAK PİLATES METODU: FİZİKSEL VE PSİKOLOJİK İYİ OLUŞ DURUMLARI ÜZERİNE KADIN UYGULAYICILARIN GÖRÜŞLERİ

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Zihin-beden uygulamalarından biri olan Pilates, anatomi ve biyomekanik temellerine dayanarak, zihinsel odaklanma ve kontrollü nefes ile vücudu güçlendirip esnetmek için yer ve makinelerle yapılan hareketleri içeren bir yöntemdir. J. H. Pilates tarafından 1900'lerin başında geliştirilmiş, fiziksel rehabilitasyon ve performans artırma amaçlı ve olumlu psikolojik etkileri nedeniyle tercih edilmektedir. Bu çalışmanın amacı, Pilates metodunun kadınların fiziksel ve psikolojik iyi oluşları üzerine görüşlerini ortaya çıkarmaktır. Bu görüşlerin açığa çıkarılması için nitel araştırma yöntemi kullanılmış, temel nitel araştırma deseninin sistematik adımları uygulanmıştır. Ankara'da yaşayan, Pilates yer hareketleri uygulayıcısı 32 kadın katılımcı özel amaç örnekleme ve elverişlilik örnekleme yöntemiyle seçilmiştir. Veri, yarı yapılandırılmış görüşme yöntemi ile toplanmıştır. Ses kaydıyla, birebir görüşme şeklinde yüzyüze ve telefonla röportajlar yapılmıştır. Nitel içerik analizi yaklaşımının kapsamlı biçimine göre nitel veri toplanmış, temaları ortaya koymak için analiz edilmiş,

temalar raporlanmıř, raporlar yazılmıř ve yorumlar yapılmıřtır. Bulgular, Pilates metodunun kadınların fiziksel ve psikolojik özellikleri, kiřilik özellikleri hakkında farkındalıkları, olumsuz düşüncelerin üstesinden gelme ve stresle baş etme, anda olma ve konsantrasyon, iş ve günlük hayattaki verimlilik, ve kişiler arası ilişkilerdeki memnuniyetleri konularında olumlu etkileri olduğunu göstermiştir. Bu etkilerden, fiziksel faydaların daha fazla ve etkili olduğu görülmüřtür. Bu sonuç, Pilates metodunun büyük ölçüde fiziksel faydalarıyla göz önünde olup, daha fazla hareket odaklı etkiler sunarak davranıřsal ve sosyal yararlarının yanında psikolojik katkılara neden olduğunu göstermektedir.

Anahtar Kelimeler: Pilates Metodu, Zihin-Beden Uygulaması, Fiziksel Yararlar, Psikolojik Yararlar, Sosyal Yararlar

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LIST OF ABBREVIATIONS

Mind-Body Practice	MBP
Mind-Body Therapy	MBT
Pilates Method	PM
Quality of Life	QOL
Subjective Wellbeing	SWB

CHAPTER 1

INTRODUCTION

1.1. Background of the Study

The evolution process has led to emergence of anatomically modern humans. Human evolution, however, has not been confined to only physical aspect, but also social, psychological, behavioral, emotional, and spiritual aspects. With technological advances and modern life style, people have started living a more passive life style. Their response to this recent and unnatural way of life has been physical exercise and sports. However, their focus on predominantly physical aspects of exercise has ignored the psychological, social, behavioral, and spiritual aspects although they are inextricable elements of their nature and evolution.

The quality of life and the way people aging are influenced by the factors that can be modified hardly by genetics and environment, or factors that could be diversified such as diet and physical activity (Boguszewski et al., 2012). Naturally, physical activity has been an integral part of people's nature and it has been playing a major role in their daily lives. Accordingly, it is known that preferring physical activities deliberately and conducting them in a planned and constant manner have positive effects on health. The reasons to take part in these events include physical, psychological, behavioral, and social contributions. Among these reasons seeming to be in good health, recuperating and sustaining physical and mental health, providing work efficiency and easing daily tasks, improving self-esteem, self confidence, self-awareness, and social belonging needs could be stated.

World Health Organization (WHO) defines health as a state of total physical, mental, and social wellbeing and not only the absence of the illness or a physical, mental, or moral weakness or flaw. Significance of regular participation in physical activities for overall health has been demonstrated by DiPietro (2001) through a literature review. The author noted that moderate level of physical activity such as walking, climbing stairs, biking, or gardening for 30 minutes/day on most days of the week would increase accumulated daily energy expenditure, maintain muscular strength, and have potential to provide protection from certain chronic diseases. Importance of physical activity for physical fitness in postmenopausal has also been mentioned by Seguin et al. (2012) that maintaining physical function with age might be improved by limiting sedentary activities with those promoting recommended levels of physical activity. In addition, improvement in physical and psychological wellbeing through a health maintenance program of regular exercise, health teaching and group participation in older adults were demonstrated by Dungan et al. (1996) in a descriptive study of a pre-test/post-test design before starting the program and after a 6-month interval of participation.

When people are holistically healthy, they are more productive and have a life of good quality. There are many sport and physical exercise types that help people to attain mentioned quality by practicing them according to their ages, physical capabilities, socioeconomic conditions, and free time. The National Center for Complementary and Integrative Health lists some effective techniques that are considered as MBPs to help individuals to meet their physical, social, psychological, behavioral and spiritual needs. To illustrate, patient support groups, cognitive-behavioral therapy, meditation, creative arts therapies (art, music, or dance), yoga, biofeedback, tai chi, qigong, relaxation, hypnosis, and guided imagery. In addition, Pilates method, Feldenkrais method, Rolfing method, and Alexander technique are accepted as MBTs for their healthy effects (National Institute of Health, NIH). Mind-body practices include activities with the intent to use the mind to impact physical functioning and improve health (Kim et al., 2013). Considering and conducting PM as one of the MBPs result in revitalization of spirit that is a crucial factor in maintaining good health and a sound mind and

body. It is possible to reawaken the body and mind through concentrated and creative effort of movement and conscious thought (Siler, 2000).

PM has a popular background almost for a century and it is now used as a form of attaining fitness and holistic health all around the world (Sorosky et al.,2008) as it could be tailored according to individuals' needs and fitness levels. It was designed by Joseph Hubertus Pilates at the beginning of twentieth century comprises of many exercises of mat-based and use of specialized equipment (Wells & Bialocerkowski, 2012) incorporates more than 500 movements. He firstly designed mat exercise to be performed on the floor and to be fit into physical and time constraints of individuals without diminishing its comprehensive elements (Siler, 2000). Later, he designated a set of specialized equipment included springs and pulleys providing resistance (Muscolino & Cipriani, 2004) to develop divergent movement patterns (Bass, 2004).

PM has been entitled as a form of mental and physical conditioning (Bass, 2004) and its philosophy focuses on training the mind and body to work together towards the goal of overall fitness. It is a series of exercises or poses that are connected in a particular way to increase circulation, flexibility, and strengthen specific areas of the body (Winsor, 1999). J. H. Pilates suggested that contrology develops the body uniformly, corrects wrong postures, restores physical vitality, invigorates the mind and elevates the spirit (Bass, 2004). PM was designed to restore physical fitness through developing muscular power, flexibility, natural grace, and skill that reflected in all dimensions of life without excessive body fatigue or mental strain. It helps to correct postural imbalances, increases vigor, arouses mind and spirit, and improves body as a whole (Pilates & Miller, 1998). The mental aspect of PM is evident in the additional focus on breathing and concentration during the execution of the movements (Sorosky et al.,2008), which helps to be centered and grounded and allows people to operate on a higher level of consciousness to be more effective, focused, and clear (Winsor, 1999).

Formerly, PM has exclusively used by dancers, however, it is currently one of the fastest-growing exercise trends in health and fitness facilities (Schroeder, 2008; Sorosky et al.,2008) with its popularity in injury rehabilitation over the past decade

(Wells & Bialocerkowski, 2012) among professionals in theater, athletics, and in rehabilitation settings by integrating Pilates-based exercises into their practice (Johnson et al., 2007). PM, which has provided new aspects into fitness industry and rehabilitation settings to deliver benefit physically and psychologically problematic conditions and maintenance of health process, is designed to accommodate any level of fitness condition (Siler, 2000). It may be suitable for all ages as an effective exercise method as it includes appropriate exercises and could be practiced with very economical equipment, such as mat, circle, mini and big balls, and elastic band. People who are athletes or sedentary, young and limber, or old and inflexible, are able to change the way that they behave to their own bodies (Siler, 2000) and take advantage of its practicability.

In this sense, musculoskeletal conditions, sports injuries, and neurological disorders are mainly supported and treated by rehabilitation programs that include PM exercises (Miyamoto et al., 2011).

For the purpose of alleviating and overcoming symptoms of these physical and psychological problems, heightened awareness of body and ability of controlling its movements could be advantageous through improvement of physical wellbeing. By its very nature, PM might lead to raise awareness, sustain physical and psychological wellbeing, and heal physical and psychological disorders that influence quality of life in a negative manner. It might also play a major role to improve people's social lives and roles including self-esteem, self-confidence, and social integration.

PM has become a popular physical exercise especially among women in Turkey, following a similar pattern with the rest of the world. This study will focus on the Pilates practitioners' opinions to emphasize the unique role played by PM in meeting physical activity needs, while contributing to meet psychological, social, and behavioral needs of women.

1.2. Significance of the Study

Sedentary life of many people due to different reasons lead to some health problems which are seen as a burden to society in terms of high medical care costs, and high community care costs (non-medical care costs, informal care and indirect costs, morbidity and mortality) (Borgström, et al., 2007). Today, it is government policy of many countries to make their citizens more active since it is a scientific fact to keep people healthy through physical exercises. Medication and surgical method to treat health problems are not satisfactory when compared to cost for these issues. However, it is possible to avoid health expences to a large extent through a 10 to 15 minute of physical exercises per a day (Açıkada & Ergen, 1990, cited in Öztürk, 2014). According to Pourvaghar et al. (2014), conducting PM regularly, which is accepted as safe and beneficiary to the general health condition, is considered as a cost-effective noninvasive intervention to be able to improve the mental health of aged population. Since, PM reduces a considerable amount of expenses and burdens of treating the declines of body functions with no side effects when compared to medicines. As Lustosa et al. (2011) signified that improvement of muscular power and functional capacity through strengthening exercises is an important variable of the QOL in terms of physical and mental wellbeing. The effectiveness of physical activity has been explained clearly on wellbeing parameters like self-efficacy, cognitive functioning, and improvements in cardiovascular status, strength, and functional capacity (Angevaren et al., 2008; Netz et al., 2005).

A sedentary life style, some chronic diseases and physical problems, exemplifying musculoskeletal deficiencies and pain, migraine headache, hypertension, diabetes, heart disease, asthma, and arthritis, may lead to some complaints about psychological problems, deterioration in physical condition, and inefficiency in undertaking daily issues. Some psychological problems and complaints like fears, depression, stress, anxiety, and eating disorders could cause people to limit their physical activities practically and actively. Being subjected to traumatic events may lead some people to face anxiety problems, social and interpersonal problems, and impaired QOL (Kim et al., 2013). Studies regarding relationship between

depression, anxiety, panic, and somatic complaints (Rief et al., 2005; Scott, 2006; Tagay et al., 2006) reflect that people who experience those disorders need to special care and treatment to get rid of impairment of health-related QOL.

Complementary and alternative medicine (CAM), mostly used are mind-body practices of relaxation techniques and exercise therapy, is associated with positive impact on stress-induced illnesses. Those practices are increasingly used in the treatment of mental and emotional problems among individuals (Kim et al., 2013; Libby et al., 2013). In this sense, PM may be helpful especially to attain good state that necessitates combination of MBPs. It might avail to ameliorate and provide physical and psychological wellbeing. One of the major results of this method is to gain mastery of mind over the control of body (Pilates & Miller, 1998), logically improvement in body awareness may relieve those people with their disorders. Practicing PM helps to fix the mind and empower achievement of purposes, and this skill can be applied to any area of life: work, relationships, sport and recreation (Bass, 2004).

PM brings body into a state of harmony, so that all areas work together as a unit. Therefore, it is vital to gain and sustain physical power for keeping up QOL (Winsor, 1999). When this method is practiced regularly body undergoes change in terms of enhancement of muscular strength, tonus, endurance, balance, and flexibility (Angın, 2012; Babayiğit, 2009; Boguszewski et al. 2013; Bulguroğlu, 2015; Bullo et al., 2015; Eyigor et al., 2010; Fernandez, 2014; Kloubec, 2010; Küçükçakır, 2011; Perez et al., 2013; Perez et al., 2014; Rogers & Gibson, 2009; Segal et al., 2004; de Siqueira Rodrigues et al., 2010) that may increase QOL. Those physical transformations may lead practitioners to attain social and psychological wellbeing such as increasing perceived subjective wellbeing, appreciation by other people, sleep quality, self-esteem, mood states, self-confidence, satisfaction with life, mental health of QOL, and decreasing depression, anxiety, and stress (Caldwell et al, 2009; Cruz-Ferreira et al., 2011; Doğan & Eryılmaz, 2013; Durutürk, et al., 2013; Leopoldino et al. 2013; Öksüz, 2012; Reppa, 2013; Viera et al., 2013).

Illustrating, Segal et al. (2004), studied the effects of 6 week Pilates exercises on flexibility and body composition among healthy adults, observed significant increase on flexibility scores of participants. Furthermore, Özdemir & İrez (2010) conducted a study to examine the effects of 12 week, 3 days per a week, 60 minutes per a session Pilates exercises on relevant subjective well being on 85 women (45 as exercise and 40 as control group) over the age of 65. The results revealed that 12 week Pilates exercises were partially effective in improving perceived subjective well being on women over 65.

It appears from the aforementioned investigations that numerous quantitative investigation have pointed out that the PM is efficacious for all body types, fitness levels and age groups in terms of physical and psychological variables. However, a research in Turkish context in qualitative design is very limited on how PM affects women's physical and psychological wellbeing as a whole.

In this respect, revealing the women's point of view as a consequence of practicing PM regularly on state of wellbeing regarding both physical and psychological dimensions of overall health through a qualitative study is being considered to provide crucial information for literature. Clarifying PM that is put into practice for its positive effects on health through an area of research would extensively examine how these effects could essentially vary and re-shape the life of people. It may also contribute to endeavors of the sciences of medicine and psychology to heal people who suffer from systemic diseases, injuries, and psychological disorders. In order to fill in this gap a research was designed.

The literature review part of this study includes concepts of physical and psychological wellbeing, mindfulness, and mind body practices. In addition, it involves the history of PM and its fundamental principles. As a means of achieving the specified aim to provide rational for the effects of PM as one of the mind-body practices, J. H. Pilates' writings about his method, and studies of other authors regarding MBPs and PM are introduced.

Literature review part is followed by explanation of the method. In the present study, qualitative research method and basic qualitative research design were

applied. In order to collect qualitative data, a semi-structured interview method by face-to-face and telephone interviews were conducted with PM women practitioners to reveal their opinions on physical and psychological wellbeing. Later, analyzed qualitative data is introduced in the findings part. According to research questions, interview questions are grouped and introduced through figures, tables, and interpretations. In the discussion part, the findings are grouped according to research questions and each question is discussed under each interview question. Finally, the conclusions part is introduced.

1.3. Purpose of the Study

The purpose of this study is to determine women practitioners' opinions on how regularly practicing the Pilates method affects their physical and psychological wellbeing.

In order to do so, the following research questions are posed:

1. How does regular PM practice affect women practitioners' physical wellbeing?
2. How does regular PM practice affect women practitioners' psychological wellbeing?
3. How does regular PM practice affect women practitioners' self-identity?
4. How does regular PM practice affect women practitioners' efficiency at work and daily life?
5. How does regular PM practice affect women practitioners' interpersonal relationship?

1.4. Limitations

This study is limited as of date between 2013-2014 spring term and 2018-2019 spring term. There were several confounding factors that may have affected the results of this study. One of the methodological limitations would be that it focused on female participants and not male participants. The other limitation would be that only the participants who performed the Pilates mat exercises were included, however, the practitioners who performed with the Pilates machines were not included.

Except for three participants, one of them had some difficulties with depression, and two of them were diagnosed with panic-attack, the women in the study appeared fairly psychologically healthy. No assessment was attempted for their mental status, however; only the woman who was under the treatment of depression had reported taking medicines regularly for thirty years. Thus, these results may not be generalized to people with mental disorders. Nor would they necessarily apply to any population other than women between the ages of 27 to 74. Lastly, the sample was recruited from within only the capital of Turkey, so generalization of findings is unknown but may be limited.

CHAPTER 2

LITERATURE REVIEW

The review of literature part includes concept of wellbeing branched of physical and psychological wellbeing, mindfulness, and MBPs. It continues with information on history of PM and its fundamental principles. It also involves J. H. Pilates' writings about his method, and studies of other authors regarding MBPs and PM in order to achieve the specified aim to provide rationale for the effects of PM as one of the MBPs.

2.1. Well-Being

Quality of life (QOL), which is contemporarily associated with concept of subjective wellbeing (SWB), i.e. happiness, has multidimensional properties of mental, emotional, social, and physical components. It is described as the state of satisfaction and wellbeing of individuals in these dimensions (Işıkhan, 2000, cited in Özdemir & İrez, 2010).

SWB is one of the most important study and research areas of positive psychology. Evaluation of an individual's life from the point of cognitive and emotional dimensions is in question in SWB (Doğan & Eryılmaz, 2013). It is defined as life satisfaction, experiencing positive feelings more often and negative ones seldom (Argyle et al., 1989 cited in Doğan & Eryılmaz, 2013). The concept of SWB expressed as the emotional and cognitive evaluations of people regarding their lives, includes feelings of happiness, peace, fulfillment, and life satisfaction (Diener et al. 2003). According to Pollard & Rosenberg (2003) people who have high levels of wellbeing experience more positive emotions than negative ones and

high life satisfaction (i.e. SWB), besides personal growth and meaning in their lives (i.e., eudemonic, or psychological well-being) (cited in Carruthers & Hood, 2011). In this explanation, life satisfaction constitutes the cognitive dimension of SWB. The positive feelings in emotional dimension include emotions like enthusiasm, honor, interest, euphoria, joy, and trust. On the other hand, the negative feelings involve feelings like embarrassment, guiltiness, anger, and hatred (Doğan & Eryılmaz, 2013).

Perception of happiness depends on safety needs, social needs, esteem needs, and self-actualization needs (Furnham & Cheng, 2000). One of the ancient times philosophers, Aristo, expressed happiness as the meaning and aim of life, whole purpose and achieved target of human existence (Lyubomirsky, 2007, cited in Doğan & Eryılmaz, 2013). In 1967, Warner Wilson introduced a review of SWB, inferred a happy individual as young, healthy, well-educated, well-paid, extroverted, optimistic, worry-free, religious, married person with high self esteem, job morale, modest aspirations, of either sex and of a wide range of intelligence (cited in Ed et al., 1999).

Furnham & Cheng (2000) stated self-esteem, extraversion, and neuroticism as direct predictors of happiness that included six factors believed to be reasons of happiness. Those factors were mental strength and personality traits, personal advantages, achievement and freedom in life and work, social support and esteem, security, and optimism and contentment.

It is highlighted by Ed et al. (1999) that happy individuals own a positive temperament, tend to have a positive look on things, and do not concentrate on adverse events. They live in a developed society with social securities to advance toward their goals. Lyubomirsky et al. (2005) expressed the happiness as a key factor to anticipate crucial consequences of achievement. Happy individuals have satisfying and active work, good relationships, and better physical and psychological health and long life span. Those happy people have rich and gratifying social relationships and spend little time alone relative to average people. Definitely, social relationships form a necessary but not sufficient condition for high happiness, but it does not seem to happen without them. To

sum, good social relationships are considered vital to human mood (Diener & Seligman, 2002).

From the point of studies on PM, Bass (2006) remarked on the concept of wellbeing that was possibly referred as the spirit or the gheist by J. H. Pilates. It was stated that exercising has an impact on sense of wellbeing and euphoria through changing the biochemistry and producing chemicals. According to Pilates & Miller (1998), enjoyment of moving through training and realizing the huge potential of body might raise one's mood. The acquirement and enjoyment of physical wellbeing, mental calm and spiritual peace is priceless to their possessors. The Contrology, i.e. PM, may help to attain the unique trinity of a balanced body, mind, and spirit, which would be followed by self confidence as the holistic combination.

2.1.1. Physical Wellbeing

As many people tend to a physically passive life depending on activity decrement, it is more common to face with musculoskeletal diseases and complaints about them. Importance of the physical exercising has been introduced to mention the effects of physically inactive life style on many health problems. In Greek antiquity, Hippocrates signified that an inactive body grows slowly, is more vulnerable to diseases and accelerates the aging process (Van Tuyckom & Scheerder, 2010).

Exercising physically is one of the ways of attaining physical and psychological wellbeing. General population is hoped to largely know the crucial role of participation in some kind of regular and optimum level of physical activity for keeping overall fitness. It is because positive consequences of taking part in physical exercises are observed in improved QOL. A number of researchers have enlightened beneficial effects of various physical exercises (Bravo et al., 1997; Dungan, et al., 1996; Jette et al., 1996; Suomi & Collier, 2003; Williams & Lord, 1997).

The preventive efficacy of physical activity reflecting physical and psychological benefits finds support in a number of systematic reviews, meta-analysis, and clinical trials in samples of adolescents, adults, and elders. Positive results have been demonstrated for conditions such as precluding physical problems of people, postponing aging process, and enhancing quality of life in terms of physical health (Chang, et al., 2004; DiPietro, 2001; Keysor & Jette, 2001; Lustosa et al., 2011; Netz et al., 2005; Powers et al., 2004; Prohaska et al., 2006; Tuna et al., 2009), reducing hypertension in adults (Kelley & Kelley, 2000; Whelton et al., 2002), decreasing the risk of functional decline and mortality in older adults (Simonsick et al., 1993), prevention of falls in elderly (Chang et al., 2004; Iwamoto et al., 2009), decreasing hospitalizations of older people (Kerse et al., 2005), improvement of quality of life, cardiorespiratory fitness, physical functioning, and fatigue in breast cancer patients and survivors (McNeely et al., 2006), improvement in glycemic control for people with type 2 diabetes mellitus (Boule' et al., 2001; Nagarathna et al., 2012; Oliveria et al., 2012), providing protection from certain chronic diseases, increase in daily energy expenditure, and maintaining muscular strength (DiPietro, 2001), increasing muscle strength for handshaking in elders (Kozak-Szkopek & Galus, 2009), enhancing cardio respiratory fitness level of older people (Angevaren et al., 2008), developing effect of static stretching on dynamic balance in middle-aged adults (Handrakis et al., 2010), and relieving knee pain and knee osteoarthritis (Thomas et al., 2002).

Considering physical fitness within the frame of studies on PM, Pilates & Miller (1998) explained it as being the first requirement of happiness with concept of the mind. It includes reaching and sustaining a developed body consistently with a sound mind, which is qualified to fulfill daily tasks easily and vigorously. According to Bass (2004), J. H. Pilates noticed that his designed movements would cause to form new nerve pathways in brain, and raise awareness and stimulate the mind in time when they were repeated regularly.

Recent controlled studies have pointed out that exercises of PM are efficacious on physical parameters for all body types, fitness levels and age groups of people. In this manner, Kloubec (2010) revealed that a 12-week, 2 times a week, for an hour Pilates mat exercise program showed significant increases in abdominal

endurance, hamstring flexibility, and upper-body muscular endurance in 50 active middle-aged men and women. In terms physical health and independence, Özdemir & İrez (2010) also revealed that performing PM for 12 week affected perceived parameters positively in women over the age of 65, conversely, participants' social, emotional health, and personal wellbeing were not affected significantly.

In another study, comparison of an eight-week endurance training method, step & aerobics with PM among 20 sedentary women showed positive effects on flexibility, balance, leg strength, abdominal strength, BMI, health, strength on the side of both Pilates group and step aerobic group. Besides, statistical differences were only seen on general physical condition, appearance and self-confidence in favor of Pilates group (Öztürk, 2014).

Rheumatologic diseases generally lead to decreament in joint mobility and increment in level of pain in musculoskeletal structure. Devaşan (2014) examined the effect of Clinical Pilates Therapy (CPT) on reducing fear of movement defined as kinesiophobia on 34 patients of rheumatologic diseases who were assigned CPT and home program (HP). CPT group participated in six weeks, 3 days in a week, 1 hour of exercise and HP group was shown exercises to reduce the existent functional disability and pain. The results of the CPT group showed betterment in pain intensity, fear avoidance beliefs, anxiety and function scales. It was concluded that CPT was an effective treatment option on reducing the symptoms related to fear avoidance and pain in patients diagnosed with rheumatologic disease.

Regarding the effects of clinical Pilates exercises on physical fitness parameters, also Topuz (2014) studied with 30 healthy people, aging between 18-55, for 8 weeks, 3 days a week and 45 minutes for each session. Measures for evaluating physical fitness parameters were repeated before, after, 6 weeks and 12 weeks after Pilates training. The results showed statistically significant changes on body composition, muscle strength, muscle endurance, flexibility, balance, cardiovascular endurance after Pilates training. These influences were kept up to 12th week after the intervention. The youger participants, ages of 20 to 30,

reflected the highest influences on body composition, strength, endurance, and flexibility measures.

As mentioned, most of the studies on physical benefits of exercising conducted with adults and older people. Besides these, in order to examine effects of 5 days a week, for 4 weeks Pilates exercises on body composition and blood pressure, Jago et al. (2006) studied with 30 girls ages of 10- to 12-year-old who were divided in intervention and control groups. It was reported that practicing PM was enjoyable and beneficial to reduce BMI percentile to prevent girls from obesity.

All the mentioned studies revealed that performing PM for various duration and frequency provided beneficial physical improvements for its young, adult, and older practitioners.

2.1.2. Psychological Wellbeing

Positive role of regular physical exercise is an object of concern in prevention and treatment of many health problems. It ensures a long-term defense for some somatic complaints like coronary heart disease, hypertension, cancer, diabetes, arthritis, multiple sclerosis, Parkinson's disease, post menopause, and osteoporosis. In addition to the somatic benefits, there have been several extensive studies on psychological benefits of physical activity that may play role in promotion of psychological wellbeing in terms of positive mental health, self efficacy, cognitive functioning, self esteem, happiness, body image, elevation of mood state, decreasing symptoms of depression, anxiety, stress responsivity, and premenstrual syndrome (Craft & Perna, 2004; Furnham & Cheng, 2000; Kozak-Szkopek & Galus, 2009; McAuley et al., 2005; Scully et al., 1998).

The effects of physical exercising and sports with various characteristics as being aerobic or anaerobic, short, medium, or long-term duration, competitive or non-competitive, team or individually, single or multi session are not always clear. Those studies seemed to effect psychological conditions as a consequence of physical transformations attained by different exercise regimens. Therefore, recent attempts to develop classifications of physical activity and mental health might

offer diverse recommendations (Scully et al., 1998). In this respect, Klizas et al. (2012) concluded that application of sports games such as basketball, volleyball, football, and Pilates exercises, raised the indicators of psychosocial adjustment, self-esteem, dominance, and satisfaction with life of adolescent girls. It was stated that a certain level of self-esteem is formed when reflecting on the results of one's activity and conceiving how others assess one. Therefore, an adequate self-esteem allows a critical insight into oneself and coherence of one's opportunities with tasks of various degrees of complexity.

Intensity of an exercise, high-moderate-or low, might be decisive for its practitioner to conduct it for a period of time in a regular manner with enthusiasm and to get benefits thoroughly. In this particular, Cassilhas et al. (2007) revealed that a 24 week of resistance training at a moderate intensity caused more improvements in mood profiles and certain aspects of QOL in comparison with and high intensity training in sixty-two elderly people.

In order to examine the exercise-mood relationship in older adults, Arent et al. (2000) conducted a meta-analysis. In studies comparing an exercise group with some form of a control group, exercise is related to enhanced mood. In studies comparing pre- to posttest changes in mood, exercise is also associated with improved mood in the elderly. It was observed that, physically active elderly individuals seem to have an increased global mood in comparison with physically inactive older people.

Relieving the adverse psychological effects of menopause exercising physically might be one of the remedies. In this subject, study by Bravo et al. (1997) pointed out the positive physical effects of 12-month period of 3 days a week, 60 minutes weight-bearing, water based exercise program on postmenopausal women with low bone mass as well as its positive psychological effects.

There are also several studies on the impact of tai chi, a moving meditation as one of the mind body exercises, to examine the changes in psychological and physiological functioning following the participation. In one research, efficacy of tai chi in post-stressor recovery for the aim of improving psychological

functioning was examined by Jin (1992) with 48 male and 48 female tai chi practitioners who were randomly assigned to tai chi, brisk walking, meditation and neutral reading groups. The results showed improvement in mood states and decrease in salivary cortisol level after all treatments. While the stress-reduction effect of tai chi characterized by moderate physical exercise, heart rate, blood pressure, and urinary catecholamine changes were similar for tai chi and walking. In terms of reduction of state anxiety and the enhancement of vigor, tai chi was superior to neutral reading.

In another research, it was reported that practice of tai chi raised heart rate, increased noradrenaline excretion in urine, and decreased salivary cortisol concentration in tai chi beginners and practitioners. Tai chi subjects reported less tension, depression, anger, fatigue, confusion and state-anxiety in addition to feel more vigorous, and less total mood disturbance during the study period (Jin, 1989).

The probable effect of exercising through tai chi in a randomized controlled study of a 12-week, 3 times per week with 76 borderline hypertension subjects showed decrease in blood pressure and positive lipid profile changes. Also, trait anxiety and state anxiety decreased in study group (Tsai et al., 2003).

On the subject of depression, De la Cerda et al. (2011) assessed the effects of an aerobic training program as complementary therapy in 82 female patients suffering from moderate depression. They were divided in two groups of received traditional pharmacotherapy and received pharmacotherapy and an aerobic training program. The training programs of gymnastics, dancing, and walking were continued for eight weeks, three times a week. The results confirmed that women with moderate depression considerably diminished their reported symptomatology when participating in an aerobic training program as a complementary therapy with pharmacotherapy.

As mentioned in physical wellbeing contributions of PM, study by Topuz (2014) resulted in positive effects on decreasing anxiety and depression scores of healthy people after completing the program up to 12th week. Besides, Cruz-Ferreira et al.

(2011) demonstrated that practicing 2 hours a week for 6 months Pilates-based exercises improved psychological well-being and QOL of healthy women.

In the studies explained above, exercising physically is seen to reduce symptoms of negative psychological disturbances such as anxiety disorder, anger, stress, confusion, and depression. As well as, exercising physically also seems associated with improved psychological well-being, positive mental health, self-efficacy, cognitive functioning, self esteem, happiness, body image, mood state, and QOL.

2.2. Mindfulness

Historically being a Buddhist practice, mindfulness can be interpreted as a global human potential to encourage clear thinking and sincerity (Ludwig & Kabat-Zinn, 2008). In contemporary psychology, mindfulness is an approach to increase awareness and respond skillfully to mental processes that contribute to emotional distress and maladaptive behavior. It is a process of regulating mind and attention for pure awareness and observing the varying field of perception at any time (Speca et al, 2000) within an orientation of curiosity, experiential openness, and acceptance (Bishop et al., 2004). It is defined as a receptive attention and awareness of the body, emotions, thoughts, and phenomena in the present events and experience (Brown & Ryan, 2003; Jain et al., 2007) whether or not pleasant, instead of distraction from the present moment, or ruminations regarding past or future experiences (Jain et al., 2007).

The objective of mindfulness is to improve sense of emotional balance and well-being by virtue of continuing awareness moment by moment, excluding oneself from strong attachment to beliefs and dysfunctional behavior patterns, habitual reactions, automatic thoughts, or emotions (Brown & Ryan, 2003; Ludwig & Kabat-Zinn, 2008). It implies clearly experiencing what is there and serves an important self-regulatory function (Brown & Ryan, 2003) and fully engaged living (Deci & Ryan, 2008) that is most commonly expressed as the state of being attentive to and aware of what is taking place in the present (Brown & Ryan, 2003).

Mindfulness is conceptually and operationally closer to constructs that involve a process of self-observation (i.e., introspection, observing self, reflective functioning) than self-knowledge per se (i.e. psychological mindedness, insight, and self-awareness) (Bishop et al., 2004). In a state of mindfulness, thoughts, images, verbalizations, impulses, and feelings are observed as events in the mind to be part of the ongoing stream of consciousness and allow an immediacy of direct contact with events as they occur (Bishop et al., 2004; Brown et al., 2007).

The consciousness undertakes an unambiguity and vitality that facilitates better-informed and more tolerant psychological and behavioral responses (Brown et al., 2007). This mindful attention and openness to the present moment allows individuals to disengage from automatic thoughts, habitual reactions, and dysfunctional behavior patterns (Brown & Ryan, 2003), results in more autonomous, authentic choices and actions that are freer from internally and externally controlling forces (Brown et al., 2007).

Several researches have been undertaken on psychological benefits of mindfulness practices. It is possible to improve mindfulness through several activities like sitting meditation, but also movement-based meditative practices, like walking, Pilates method (Caldwell et al, 2010), yoga, and tai chi (Caldwell et al., 2010; Roemer & Orsillo, 2003). In this subject, Shapiro et al. (1998) reported the effects of mindfulness training in premedical and medical students who were randomly assigned to mindfulness training or control group. The intervention showed reduced state and trait anxiety, psychological distress including depression, increased empathy, and spiritual experiences that were assessed at termination of intervention.

When people physically overcome limitations of their bodies, many things in their lives get easier. One of the mindfulness based exercises; the Pilates method helps people to improve their physical capabilities to perceive feeling of achievement, to feel more confident and prepared to undertake any challenge. It also allows them to be truly present in their lives everyday, moment to moment. The act of being present helps people to be better listeners, to have a deeper understanding of the situation and the surroundings (Winsor, 1999). The concept of mindfulness is a

crucial component of Pilates method as a mind-body practice to serve for the purpose of being synchronized mentally with action in deep concentration. It is crucial to mention that putting an extra emphasis on breathing and concentration during the practice of the exercises has formed the mental element of Pilates (Sorosky et al., 2008). To conclude, people with physical and psychological problems may particularly take advantage of Pilates method as it provides improved physical and psychological capacity to cope with disabilities and physical pain, to contribute healing, and to facilitate psychological coping.

2.3. Mind-Body Practices

Rather than being dependent or entirely disparate, mind and body are interconnected. The dynamic, complex (Ozawa De Silva & Ozawa-De Silva, 2011), and close connection between mind and body means that every person has the capacity for self-healing and self-regulation (Dorjee, 2005, cited in Ozawa De Silva & Ozawa-De Silva, 2011). The competency of mind is capable of revealing anything; hence setting the goals and endeavoring to make them real are motivations to exist (Siler, 2000).

A MBP is a type of complementary and alternative medicine, also called as mind-body modality. It unites mental focus, controlled breathing, and body movements to feel the body and mind. It might be used to help control pain, stress, anxiety, and depression for overall health (National Institutes of Health, NIH).

MBPs are categorized by Frishman et al. (2005) in two groups of relaxation techniques, which involve meditation and deep breathing, and somatic techniques, namely exercise with relaxation, like yoga and tai chi (cited in, Leung et al., 2008b). Similarly, Ospina et al. (2008) identified five broad categories of meditation practices that are mantra meditation, mindfulness meditation, yoga, tai chi, and qigong. In addition to these, instances also include chiropractic and osteopathic manipulation; massage therapy, acupuncture, relaxation techniques (such as breathing exercises, guided imagery, and progressive muscle relaxation), healing touch, hypnotherapy, and movement therapies. Some other examples of the movement therapies are Feldenkrais method, Alexander

technique, Pilates method, Rolfing structural integration, Trager psychophysical integration (NIH).

According to Johnson & Grand (1998), some pioneers of the movement therapies Ida Rolf, Wilhelm Reich, Elsa Gindler, F.M. Alexander, and Moshe Feldenkrais stated the capacity of the torsions in the connective tissues to support and conduce mental and emotional torsions, as well. When there are knots in the muscles and fasciae, it could be estimated that they might result in constrains in consciousness. Primarily, relieving the tissues and releasing the knots facilitate to heal mental and symbolic confusions. The mental activities of thoughts, emotions, and value judgments are considered not to separate from muscular responses (cited in Hawkins, 2004). Schroeder (2008) conveyed the different ideas of people regarding mind-body exercises. According to those ideas, it is adequate for some people to create a kinesthetic awareness that implies an understanding where the body is in space during movement. Conversely, a spiritual component that is the gaining of a deeper level of consciousness is vital for others.

MBPs aim to affect physical functioning and enhance health through using the mind by focusing on the interactions among the brain, mind, body, and behavior (NIH). According to Kim et al. (2013), mind-body practice includes activities that aim to use the mind to affect physical functioning and improve health. To be able to create great sense of aliveness; the somatic techniques are used to develop the awareness of how consciousness resides in the entire body, not just in brain (Hawkins, 2004). A growing body of evidence supports the belief of practicing the mind body exercises has a positive impact on people to improve and sustain quality of life, stress reduction, and advancement of physical and psychological health conditions (NIH).

MBPs encompass many therapeutic effects to reduce depression, stress and stress related medical illnesses, anger, post-traumatic stress disorder, anxiety-spectrum disorders, panic disorder and daily tension; to improve sleep quality, mood, self-efficacy, appreciation, acceptance, self-respect, mental parameters, coping skills, cognition and physical and mental measures of QOL (Bogaards & ter Kuile, 1994; Brown & Gerbarg, 2005; Brown & Gerbarg, 2009; Caldwell et al., 2009; Caldwell

et al., 2010; Carim-Todd et al., 2013; Conrad et al., 2007; D'Silva et al., 2012; Innes et al., 2008; Kim et al., 2013; Kozasa et al. 2010; Kuramoto, 2006; Luskin, 2004; Oken et al., 2006; Posadzki et al., 2010; Prathikanti et al., 2017; Ross & Thomas, 2010; Streeter et al., 2010; Van Hook, 1998).

There have been many studies regarding MBPs that could be exercised to meet the various necessities of children and adolescents (Kaley-Isley et al., 2010), elderly populations (Oken et al. 2006); people who have physical limitations (Oken et al., 2004), mental disorders (Krisanaprakornkit et al., 2010), neurological disorders (Senders et al., 2012); and pregnant women (Beddoe & Lee, 2008).

Systematic reviews and meta-analyses have pointed out beneficial effects of some MBPs including relaxation training, cognitive behavioral therapies, meditation, hypnosis, imagery, biofeedback training, yoga, art and music therapy, tai chi, qigong, and PM. Single or some combination of these therapies is able to supplement conventional medical therapies in the treatment of various physical and psychological health problems by increasing physical functioning and psychological wellbeing.

In addition, MBPs help to enhance knowledge of the human body, health-related outcome measures and treat cardiovascular diseases (Arthur et al., 2006; Bernardi et al., 2010 Lan et al., 1999; Leung et al. 2008a; 2008b), hypertension (Astin et al., 2003; Lee et al., 2007), arthritis (Astin et al., 2003), cancer (Elkins et al., 2010; Mansky et al., 2006), migraine and tension-type headache (Bogaards & ter Kuile, 1994; Symvoulakis et al., 2007); alleviate the menopausal symptoms (Daley et al, 2006; Hill-Sakurai et al., 2008; Innes et al., 2010; Newton et al., 2002); help for smoking cessation (Carim-Todda et.al. 2013; Sood et al., 2006); improve physical measures of blood pressure, immune response, and wound healing (Luskin, 2004); and better energy and reduce fatigue (Oken et. al., 2006; Ross & Thomas, 2010).

These mentioned studies confirm contribution of MBPs for the management of physical and psychological complaints that might be related with illnesses on neural and biological mechanisms. One of the studies that revealed positive outcomes of MBPs was conducted by Elkins et al. (2010) who stated that some of

the mind-body treatments like relaxation therapies, biofeedback, meditation and hypnosis, yoga, art and music therapy, tai chi, and qigong were examined for their positive influences in cancer treatment. Also, Mansky et al. (2006) proposed a study as a model of how to further the understanding of the effects of a mind-body practice and to test the possibility of increased benefit of tai chi as a complex mind-body intervention in cancer survivors. In addition, Ross & Thomas (2010) reviewed the literature to compare the effects of yoga and exercise on a variety of health outcomes and health conditions. These studies indicated that, in both healthy and diseased populations, yoga might be as an effective exercise at improving a variety of health-related outcome and subjective measures in both populations.

By taking into consideration physical and psychological aspects, Luskin (2004) concerned on transformative practices that arose from the varied religious traditions of the world. Some of the examples involve prayer, meditation, mantra, affirmation, tai chi, and yoga that intend to cause to an advanced awareness of spirit, and mental and physical wellbeing. It was remarked that the effects of them were mostly beneficial on physical markers like blood pressure, immune response, and wound healing besides psychological variables such as depression, anger, and stress. These practices purpose to change the mind, body, and spirit of individuals by remodeling their perception of the relationship among these three elements.

In another study, Innes et al. (2010) reviewed literature to reveal the effects of self-administered mind-body therapies including yoga and/or meditation-based programs, tai chi, and other relaxation practices that comprising muscle relaxation and breath-based techniques, relaxation response training, and low-frequency sound-wave therapy on menopausal symptoms. The authors expressed that yoga based programs, breathing practices, and certain other mind-body therapies seemed to be beneficial for reducing overall menopausal and vasomotor symptoms, to improve mood and sleep, and to reduce musculoskeletal pain. In addition, Leung et al. (2008a) designed a qualitative study to explore the motivations and perceived effects of MBT among male and female acute coronary syndrome (ACS) patients. The findings showed that MBTs had physical and psychosocial benefits in angina symptoms, breathing, relaxation and positive

mood that motivate for a great sense of control during recovery. The reason of using MBT for some participants is consideration of them as a method of minimizing negative emotions, while others were motivated to discover ways to improve their heart condition by keeping themselves fit and being active.

Physical health aspects of various MBPs included cognitive therapy, relaxation, or electromyographic (EMG) biofeedback alone or in combination with relaxation were also revealed to be superior in tension headache through a meta-analysis (Bogaards & ter Kuile, 1994).

Also, Oken et al. (2006) conducted the study of yoga intervention with healthy people. The results showed improvements in physical measures of endurance, and flexibility, besides a number of quality of life measures related to sense of wellbeing, and energy and fatigue. In addition, Carim-Todda et al. (2013) supported through a systematic review that mind-body therapies like yoga and meditation-based therapies could provide coping skills, increase knowledge of the human body. Moreover, they promote appreciation, acceptance, self-respect, and lead to a healthier lifestyle that might include smoking cessation. Similarly, Sood et al. (2006) expressed that yoga, meditation or massage, as complementary and alternative medicine practices might be useful ways to get rid of stress and smoking cessation.

Moreover, Kuramoto (2006) summarized therapeutic benefits of tai chi exercise as improved balance, reduced fear of falling, increased strength, increased functional mobility, greater flexibility, increased psychological well-being, sleep enhancement for sleep disturbed people, and increased cardio functioning.

As the literature supports, dynamic mind-body practices such as yoga, tai chi, qigong, Pilates method, and Gyrokinesis® are considered to balance the mind and body holistically. An increased sense of control is thought to enhance the mind's self-regulatory processes and prevent mental health disorders such as anxiety, depression and, minimize mental health disruptions such as stress and poor QOL (Posadzki et al, 2010). Regarding the possible effects of two mind body practices, Caldwell et al. (2009) studied with college students who participated in a semester

of Pilates or taiji quan classes. The results showed improvements in self-efficacy, development in mental parameters, and a trend towards recovery in sleep quality. While mood was found improved significantly in the Pilates group, there was a trend towards improvement in the tai chi group.

Some studies showed importance of breathing on reduction of stress. According to Conrad et. al. (2007), people who are stressed and tensed are usually advised to differentiate the method or habit of their breathing. Therefore, the authors conducted a study of psychophysiological effects of breathing instructions on people seeking treatment for panic disorder and complaining of daily tension. Their results showed that simple and short instructions to alter breathing influenced attention to breathing, however, not on change of respiratory or autonomic measures in the direction of relaxation. To reveal psychological health aspect, Brown & Gerbarg (2005; 2009) also stated that specific breathing technique of yoga can relieve anxiety, depression, everyday stress, stress related medical illnesses, post-traumatic stress disorder, and for victims of mass disasters. They concluded that breath work make people possible to ease quickly many forms of suffering by inducing stress resilience.

Some of the studies also demonstrated positive effects of MBPs on varied mental problems. For example, Streeter et al. (2010) addressed the comparison of a 12 week, 3 times a week, 60 minutes yoga and walking activity that resulted in behalf of yoga intervention in greater improvements in mood and decreased anxiety than walking exercise. Additionally, Streeter et al. (2012) put across that MBPs like yoga resulted in reduction and recovery of depression, epilepsy, chronic pain, and PTSD symptoms by normalizing the imbalance in autonomic nervous system and increasing parasympathetic nervous system activity. Furthermore, Kim et al. (2013) indicated through a literature review that mind-body intervention modalities, such as yoga, tai chi, qigong, mindfulness-based stress reduction, meditation, and deep breathing, as interventions were related with positive impacts on stress-induced illnesses such as depression and PTSD symptoms.

D'Silva et al. (2012) reviewed the evidence for using MBTs to notice varying depressive symptoms in populations with and without other chronic comorbidities

through systematic literature. Several studies for cancer patients noted the positive effects of yoga and combination therapies on depression severity. For both diagnosed depression and fibromyalgia, some of the studies noted the positive effects of mindfulness on depression severity. It was concluded that the use of evidence-based MBTs could alleviate depression severity and could be used with established psychiatric treatments of therapy and medications.

A narrative review regarding the effects of mind-body interventions presented that they were able to improve sleep efficiency and total sleep time (Kozasa et al., 2010). According to the selected studies, most of the mind-body interventions, among them yoga, relaxation, tai chi and music could ameliorate sleep quality while some of them could reduce the use of hypnotic drugs in those who were dependent on these drugs. Cognitive behavioral therapy, which seemed to be the most effective mind-body intervention, was the only intervention that showed better results than medication.

All the mentioned studies concluded that various types of mind body practices provide beneficial results on physical and psychological problems of individuals.

2.4. History of the Pilates Method

PM of body conditioning is a well-known mind-body exercise system that has a successful record of creating healthy and balanced bodies. The creator of this comprehensive program, J. H. Pilates, began to develop his exercise system in Germany in the early 1900s during World War I (Latey, 2001; Matty & Burdell, 2006; Schroeder, 2008; Siler, 2000; Sorosky et al., 2008). It is a list of exercises including stretching and strengthening by using apparatus with spring resistance and mat exercises (Matty & Burdell, 2006). PM integrates and strengthens body and mind holistically (Latey, 2001; Siler, 2000), empowers endurance, provides flexibility, emphasizes core (truncal) strength stability, betters posture, improves balance, ensures coordination between breathing and movement, and creates a more streamlined shape (Latey, 2002; Siler, 2000; Sorosky et al., 2008; Wells et al., 2012). At the beginning, J. H. Pilates described this method as ‘Contrology’ or ‘the art of control’ (Pilates & Miller, 1998; Pourvaghari et al., 2014b), or muscle

control, to highlight his unique approach of using the mind to master the muscles (Siler, 2000) has been known simply as Pilates method in due course.

J. H. Pilates, the inventor of this overall health and fitness regimen (Winsor, 1999), was born near Dusseldorf, Germany in 1880 (King, 2008), into a working-class family (Bass, 2004). He was a frail child with serious health problems (Winsor, 1999) suffered from several childhood diseases of: rheumatic fever, asthma, and rickets (Bass, 2004; King, 2008). These illnesses would have left him weak, underdeveloped and with a fear of developing the structural deformities in the long term (Bass, 2004). Therefore, he dedicated his entire life to become physically stronger (King, 2008). When he was young, a form of physical training had just been introduced into schools in Germany, so presumably his initiation into physical fitness began there. During the 1890s and the early 1900s, a new awareness of health through exercises was formed. Discoveries about the functioning of body and mind led various doctors, scientists, and writers to explore weight training, gymnastics, and all other forms of physical conditioning and their effects on health of both mind and body. Through the transformation of his own body and influences of these new ideas, J. H. Pilates designed his method and adopted a philosophy of the ancient Greeks, embodied by the Latin saying: *mens sana in corpore sano* (a sound mind in a healthy body) (Bass, 2004). As a young man, he became passionate about physical fitness as a way to transform his physical appearance and improve his health (King, 2008). He studied and became proficient at many types of body conditioning such as Greek and Roman practices, tai chi, qigong, martial arts, Zen meditation, yoga (Anderson & Spector, 2005; Hawkins, 2004), bodybuilding, diving, skiing, and gymnastics (King, 2008). By the age of 14, he had managed to re-build his body enough to be able to pose for anatomical charts (Bass, 2004; King, 2008). As he grew older, he became an accomplished gymnast, boxer, and circus performer, and was also an eager student of Eastern philosophies such as yoga and karate (Winsor, 1999).

As he was interested in bodybuilding, he found weight training and usual forms of strengthening and stretching boring or monotonous, and realized they had the potential to make body stiff and tired (Bass, 2004). Therefore, he formed the method of physical and mental conditioning by means of combining his

experience on those varied physical exercises with knowledge of physicians and his wife Clara, a nurse (Anderson & Spector, 2005). He brought together all of his research, study, and expertise to create a complete regimen that united Eastern and Western practices, including yoga, dance, durability, strength training, gymnastics, mental and physical exercises that would strengthen the body and free the mind (Latey, 2002; Winsor, 1999). Sources for the exercises were also ballet poses and animal behaviors to strengthen and stretch the muscles. Accordingly, this combination made Pilates method well developed (Hawkins, 2004). J. H. Pilates characterized his method as a total coordination and revitalization of body, mind, and spirit; promoting the uniform development of the body; and restoration of good posture and physical activity (Pilates & Miller, 1998).

In 1912, J. H. Pilates moved to England where he earned a living initially as a boxer, circus performer, and a self-defense trainer for detectives of the English police force (Bass, 2004; King, 2008). When World War I broke out, he was interned in a camp in Lancaster and later on the Isle of Man. He became a nurse in the camp and carried on developing his method with other internees and guards in physical fitness (Bass, 2004; King, 2008; Winsor, 1999). He also employed to train top-level general staff of British troops (Winsor, 1999). At that time, there was an influenza epidemic that killed 1000s (Bass, 2004; King, 2008). During the World War I, it was predicted that 20 million lives lost, however influenza pandemic destroyed 50 million lives (Winsor, 1999). It is worth to emphasize that none of the internees defeated to influenza in Pilates' camp (Bass, 2004; King, 2008; Winsor, 1999) so J. H. predicated that statistic to his training (Winsor, 1999).

Whilst he was still interned, he fashioned the predecessors of the apparatus from anything readily available- the bunk, bedsprings, and chair (Winsor, 1999). He designed the "reformer" by using bedsprings as an exercise unit, utilizing the tension of the springs to strengthen injured and got weak muscles (Bass, 2004). He attached the springs to the hospital beds to support the patients' ailing limbs while he worked with them so that he and the doctors noticed that the patients were improving faster (Siler, 2000). These spring-based exercises, which became as basis for the apparatus Pilates method, were used later to design the mat work to

be in conjunction. Consequently, name of Pilates is often associated with antiquated-looking machines. However, the efficient focus of his work roots what he referred as ‘the mat work’ is the original movement system that J. H. Pilates created and is just as effective as the work done on the machines (Siler, 2000; Winsor, 1999).

Following the war, he continued his fitness programs in Hamburg where worked with the local police force and gave up German army in 1926 (King, 2008). Contemporaneously, many performers and athletes resorted to him for training. One of them was starry heavyweight boxer, Max Schmelling, emigrated to America by inviting J. H. Pilates to there financing a studio in New York (Winsor, 1999). On the ship to New York he met his future wife Clara (King, 2008), a former nurse (Bass, 2004). After immigrating to the United States in 1926, he opened and operated the first official Pilates Studio® in New York City with Clara (Schroeder, 2008). Their success in restoring weak and sickly bodies was soon reputed and his technique particularly attracted people in the world of performing arts, medicine, and from different sectors including businesses, as well (Bass, 2004). By the 1940s, he had achieved fame in the dance community (King, 2008) and majority of his students were from New York City dance world for rehabilitation of injured dancers and improvement of their techniques (Bass, 2004; Hawkins, 2004; Anderson & Spector, 2005). Early pioneers of his method were the founders of modern dance, Martha Graham and George Balanchine (Winsor, 1999). Hence, it was thought of conditioning and rehabilitation technique for dancers. Originally embraced by the dance world, it is now practiced by athletes, models, actors, and general population who say they owe their strong, lithe bodies to PM (Schroeder, 2008; Siler, 2000). PM was widespread in the world of dance till to the mid-1980s (Latey, 2001). In the 1990s, its popularity started to improve through being applied in many disciplines of rehabilitation, such as general orthopedics, geriatric, chronic pain, and neurologic rehabilitation (Anderson & Spector, 2005).

When creator of this proven method died in 1967 at the age of 87, his method was barely known beyond the elite group of dancers, actors, and wealthy clients who had trained at his studio (Bass, 2004; King, 2008). After his death, his wife and

students conducted the method through training many people as Pilates instructors and opening new studios (King, 2008; Winsor, 1999). They undertook trainees and it was through them that his method has spread internationally, gradually at the beginning and now with great momentum (Bass, 2004). When J. H. Pilates passed away, he left no will and designated no resignation for “Pilates” work to sustain. During his lifetime, he never made any attempt to incorporate the Pilates Studio, registered the “Pilates” name as a trademark. After his death, in 1970 the “Pilates Studio”, a corporation was born. Now, name of PM is free from trademark restrictions (King, 2008).

PM and its context have been changed after years and resolving the trademark restrictions on the use of the term “Pilates” has guided to prevalent diversity, as well. Pilates exercises have modified with its implementations in different conditions. There is a term called Pilates-evolved which is used to differentiate practitioners who continue to define and expand on Pilates’ work from the traditional Pilates practitioners (Anderson & Spector, 2005). Over the years, research into the working of the human body has made many discoveries; the method has been refined and slightly revised to fall in line with new discoveries about body mechanics (Bass, 2004). To serve for demands and capabilities of people, traditional techniques of exercises have been revised and adapted with scientific principles (Latey, 2002; Anderson & Spector, 2005). In other words, to make the efficacy of PM attainable easily to the community, the original exercises have been diversified for the average body. Also, the training of instructors on a group basis as opposed to the traditional one to one approach has facilitated reaching more people (Bass, 2004).

2.5. Main Features of the Pilates Method

One of the traditional sayings of Western sports and exercise is a long-standing slogan of “no pain, no gain” recommends people to make effort to feel distress and fatigue to get favorable results. Whereas, the ancient Chinese mind-body practice of tai chi expresses that remarkable efficacy could be derived through regular workout, at an intensity that is explained by the proverb “train, do not strain”

(Schroeder, 2008). Accordingly, PM shows some similarities and differences with other physical activities and sports. Fernandez (2014) pointed out dissimilarities of PM with most of sports, like running, swimming, weightlifting, football, and baseball which the goal is to score a point, to be in control of the ball, to be the strongest and the fastest, and to have the most endurance. However, the concern in PM is not to react to external factors, rather it is to get to know, to understand, and to take control of one's body with its inconsistency and imbalances.

Exercises of PM appear like to ballet, yoga, and tai chi chuan in terms of combination of stretching and strengthening of muscles, and breathing to exhibit a calming effect. The movements in PM are slow, fluid and precise like in tai chi chuan (Winsor, 1999), however they are more active and non-repetitive contrary to yoga with minimum number of repetitions in order not to cause overuse on joints. The emphasis is not on quantity, but it is on quality (Bass, 2004). As Siler (2000) mentioned, there is no ripping of muscle tissue, traumatic impact on joints, or exhaustion of muscles beyond effectiveness. Each movement has a prescribed maximum number of repetitions. The reason for this is to assume practitioners do the exercise correctly, work their muscles so precisely and efficiently as doing any more is completely unnecessary. Since a movement is not repeated one more time in a series, it does not bring about physical or psychological monotony and exhaustion. Unlike most exercises, it is not how much, how strong, and how many, but rather than an awareness of the body working in unison with proper technique is the goal (Winsor, 1999).

It is not an exhausting technique that feels the practitioners tired and sore (Siler, 2000), instead it offers feeling of exercising with low intensity. It is one of the advantageous of this method that practitioners mainly do not feel exhausted physically; instead they feel more refreshed physically and mentally. For supporting, J.H. Pilates mentioned that Contrology is not a fatiguing system of inanimate, heavy, drastic exercises repeated daily. It is of value to enhance coordination and endurance, to provide economy of energy expenditure and flow of energy through exercising (Pilates & Miller, 1998).

PM resembles to interval training that is a more comprehensive way to work the body within the limits of muscular endurance. It is one of the most efficient ways to build endurance through the concept of working all the muscles simultaneously while continually switching the movements. Since almost all muscles of the body are worked at the same time during each exercise, there is no need to try to overtax to one area (Siler, 2000). In this particular, Petrofsky et al. (2005) examined six subjects between the ages of 18 and 30 years old to compare use of the core muscle groups (quadriceps, hamstring, gluteus maximus, hip abductor, hip adductor, abdominal, gastrocnemius and paraspinal muscles) as assessed by electromyogram (EMG). Muscle use was measured during all forms of exercise using conventional weight lifting equipment was compared to exercise during Pilates with and without a resistive device. The results showed that Pilates exercises were good for endurance training. Contrary to commercial exercise equipment, Pilates and the resistive device exercised multiple muscle groups simultaneously and thereby provided a more efficient workout than commercial weight lifting equipment.

PM differs from some exercise regimes, such as resistance training through free weights or fitness machines, in the way of its effects. These exercises commonly cause strengthening the already robust muscles, while debilitating the incapable ones (Korkmaz, 2010). This imbalance between the muscle groups could create tendency for various deformations in body. Conversely, PM has several positive contributions like toning up muscles of the body totally for gaining proper posture. Also, skeletal muscles are greatly influenced by PM that recruits the most effective motor units to improve energy efficiency and quality of performance when compared with traditional modes of muscle conditioning which concerns on maximal voluntary contractions. Physiologically, most muscle recruitment during day-to-day activities occurs in postural muscles. Practitioners can improve the efficiency of static and dynamic posture and decrease significantly the likelihood of self-induced destructive forces by facilitating the postural muscles in the right sequence (Anderson & Spector, 2005).

Focusing on large group of muscles while working them separately, and paying very little attention on muscles of abdominals and lower back are some features of

traditional exercises. In support of, old exercise regimes are based on isolating muscles and working each area of body individually and unconsciously rather than treating body as an integrated whole it is (Metel & Milert, 2007; Siler, 2000). However, PM may seem to be diametrically opposed that there is a conscious control of large group of muscles with coordination and synchrony simultaneously (Metel & Milert, 2007). To illustrate, contrary to the classical resistance training based on isolating muscle groups, PM allows for training more than one muscle group in a coordinated and effective fashion through a comprehensive approach (Özdemir, 2010). There is a structure to move all muscle groups and work body from inside out, and at the same time outside in. It strengthens smaller muscle groups to support the movement and abilities of the larger ones (Winsor, 1999) to be able to lead a deeper sense of body awareness, as well. In other words, PM mostly concentrates on activating both large and small group of muscles to improve body symmetrically. Developing minor muscle groups is essential not only to help strengthening major ones as they function in cooperation (Pilates & Miller, 1998), but also to stabilize the joints and produce correct body mechanics. For example, using proper body movement in daily activities is crucial to prevent and correct the problems relevant to posture (Bass, 2004) therefore PM brings the spine back to its most natural alignment through improving the weaknesses (Fernandez, 2014).

Movements in a Pilates series allow body to stretch and strengthen simultaneously to create a habit of relaxed effort to follow and warm up properly while working the deepest muscles directly to build strong core (Siler, 2000). While practicing PM, the focus is on the powerhouse or what is known today as the core, which embraces the abdominal, gluteus, and paravertebral muscles (Schroeder, 2008; Sorosky et al., 2008). Producing integrated movement of the body totally is the aim of the technique, which uses the core to create stability, and continues to the limbs to improve mobility (Schroeder, 2008). In other saying, all exercises begin through stabilizing the core muscles and continue through a controlled range of motion to multiplan excursion of trunk and limbs persistently (Sorosky et al., 2008). Addition to these, J.H. Pilates highlighted the need for permanent stretching and relaxing that can be achieved only when all muscles are uniformly developed

as over-developed muscles prevent attainment of flexibility and proper development of the under-developed muscles. As a result, a well-developed body performs its functions with minimum effort and maximum performance (Pilates & Miller, 1998).

Movements of a Pilates series could be performed in a sitting, reclining, prone, supine, and side-lying positions offer several advantages for the practitioners. First, they are protected against redundant heart beating to reduce strain. Second, they take advantage of original position of the visceral organs of body when in such positions. Ultimately, exercises performed in a recumbent position do not exacerbate any potential unnoticed organic incapacity when compared to an upright position (Pilates & Miller, 1998).

Human body is formed under control of mind as well as environmental factors in order to lead a QOL. Other than strengthening and stretching the muscles, PM facilitates high level of mind-body connection through exercises. Many people perform physical exercises that do not involve mental concentration and these exercises tend to be unexciting. However, PM is a very mindful activity that people must concentrate on what they do. There are steady rules to be obeyed attentively and instructions to pursue accurately while keeping mind wholly concentrated on the purpose of performing PM exercises (Pilates & Miller, 1998). Since practicing PM properly requires concentration, practitioners have the chance to keep away from thinking about their existing problems.

It is the brain that restrains people to conduct any movement or exercise, not the body. Physical limits and performance levels are controlled by people's insecurities and thoughts of limitation. Mindful physicality of this work that frees and enhances mental capabilities requires practice. However, it soon comes effortlessly and consciously, and has internal branches throughout the personal life. Clearly, balance of muscular structure between a strong side and a weak side of the body has a much deeper meaning in terms of people's mental state or daily life. Therefore, it is usual for beginners for this workout feel that they have an area of incapability to exercise (Winsor, 1999).

After a while, people feel better while conducting PM, because the exercises accelerate inactive circulation into action. It is through the blood stream to prevent the accumulation of fatigue products created by muscular and mental activities. J. H. Pilates stated that exercises help to clean up the collected debris by means of stimulating cardiovascular system (Pilates & Miller, 1998).

It is crucial to mention that putting an extra emphasis on breathing and concentration during the practice of the exercises forms the mental element of PM (Sorosky et al., 2008) and provides rhythm and mind-body connection as complementary of movements. The logic in PM is to awaken whole body muscles with proper breathing technique that leads to the enhancement of blood flow to brain. Because of improvement in the oxygen delivery to the brain cells, there is increment in mental and psychological functioning of people (de Siqueira et al., 2010).

Every movement, combines breathing with strengthening and stretching, is designed to scientifically oxygenate, then stretch, later on strengthen, and then restretch a specific muscle group (Winsor, 1999). Working the muscles while lengthening them is achieved through eccentric contraction of muscles which is admitted more powerful than concentric contraction that the muscles shorten as they contract (Bass, 2004).

PM is a combination of well-organized and choreographed movements that are performed in a balanced sequence for physical and mental health. According to J. H. Pilates one of the major results of Contrology is gaining the mastery of mind over the complete control of body (Bass, 2004). Although it is mostly thought that there is distinction between mind and body, brain is center for all neurological activity and powerhouse is the communication center for body (Winsor, 1999). PM has a potency of reconnecting oneself to his or her body, as well as learning to utilize one's strengths and improve one's weaknesses in company with breathing and concentration (Fernandez, 2014). Being centered provides being emotionally convenient, mentally clear, intuitive and perceptive, capable of accepting changes, and improving people's potential. Emotionally, that center is the place where people operate best from, speak from, and feel emotional pain, joy, and happiness.

Mentally, the control applied on powerhouse translates into an intelligibility and tranquility to overcome challenges of life (Winsor, 1999).

2.6. Pilates Method on Mat and with Apparatus

PM can be practiced both on the floor, termed as ‘mat work’, and on a variety of machines termed as apparatus work (Johnson et al., 2007) defined as body conditioning equipment in private lessons or small groups (Cruz-Ferreira et al., 2011). Those specialized equipments are reformer (Schroeder, 2008), cadillac (trapeze table), wunda chair, barrel, and spine corrector (Owsley, 2005). In order to help practitioners on the apparatus, springs and gravity are used to perform the movements successfully. It is possible to adjust the spring resistance or increase the difficulty level of gravity to provide progression on movements (Anderson & Spector, 2005; Wells et al., 2012). The elimination of the striving against gravity in the supine position provides tension to be regulated and the spine and pelvis to be aligned (Latey, 2001).

Although several equipments are helpful and increase the teaching method, they are not necessary; mat is admitted as basis (Hawkins, 2004). Pilates’ original mat work, which was originated from apparatus work, is effective in rehabilitation settings. However, mat work is difficult for many people to perform properly as the effect of gravity on the body (Anderson & Spector, 2005; Wells et al., 2012). According to Petrofsky et al. (2005), an aerobic exercise effect could be created at a much greater level by adding a resistive device to Pilates exercises, and it might increase muscle tone more effectively than Pilates without the resistance device.

Exercises with those apparatus generally referred to studio work. At the beginning of eighties, studios generally used the machines that J.H. Pilates had devised for his conditioning training. On the other hand, the mat method was little known because it was too difficult for beginners. In order to make the benefits of PM accessible to the general public at large, the original exercises have been adapted for the average body to instruct on a group basis as opposed to the traditional one to one approach (Bass, 2004). Since the neuromuscular demands of traditional Pilates method are high, many organizations have modified the original repertoire

of mat work exercises as taught by Joseph Hubertus Pilates, such as Stott Pilates, Australian Physiotherapy and Pilates Institute (APPI), Home Pilates, and Peak Pilates. These modified exercises incorporate the latest research on instability, muscle imbalance and adverse neural tension (Mallin & Murphy, 2013).

PM does not necessitate going to fitness center or buying expensive apparatus (Pilates & Miller, 1998). The mat work has proven so popular because it can be practiced anywhere. As a result of consistent practice, it provides increased strength in the powerhouse, lengthened muscles, improved posture, prevention and healing of injuries, improved flexibility, a fun workout, and enhanced energy and rejuvenation (Matty & Burdell, 2006). In a mat work class, it is remarkable that most of the exercises are conducted with body weight and mostly include flexion tendency (Bass, 2004; Sorosky et al., 2008) while practicing in sitting, lying supine or prone, and leaning to on one side positions. There are some reasons for lying down that J. H. Pilates was very conscious of the connections between the structure of the body and its internal organs. Those reasons, in essence, are to remove stress from heart, allow the organs to set and rearrange the postural muscles without the normal pull of the gravity (Bass, 2004) that affect the practitioners to keep the core stabilized (Sorosky et al., 2008). Additionally, in order to reach the state of perfection, named as ideal alignment of the body, the plumb line is followed as a guide in PM (Fernandez, 2014).

The exercises on mat and apparatus can be adapted to various human body type, weight and height. An unsuited movement can be broken down into components using springs and changing the orientation of body to the gravity. The movement sequences on different Pilates apparatus allow the practitioners to modify the load to facilitate efficient movement accurately. This manipulation of the environment helps to accelerate the reeducation process. When the movements are successfully achieved, the practitioners can be progressed by decreasing the assistance or changing the orientation to gravity until the desired outcome is achieved (Anderson & Spector, 2005).

The main resistance during a Pilates mat series is the body weight. Position of body changes in each exercise and the lever lengths of limbs continue to change

for challenging practitioners while their fitness levels improve (Sorosky et al., 2008). In a review, Lim et al. (2011) pointed out the effectiveness of Pilates exercises through some studies that involved using machines and performing on mat. Essentially, it was introduced that usage of the reformer is helpful those who are unable to perform Pilates-based mat exercises. To illustrate, springs on the reformer could assist an injured individual to perform the movements in a successful manner to reach a safe recovery. It was noted that Pilates-based mat exercises could be hard to perform for some people owing to the effect of gravity. Petrofsky et al. (2005) showed the advantages of using the Pilates devices that have ability to limit movements in unfavorable directions at the joints and thereof, reduce potential injuries while exercising smoother and safer. Using a resistive device that can circumvent the limb stabilizes the joints and keeps the body in alignment during exercise by helping to guide the performer through the movement. When evaluated from an orthopedic standpoint, it places less stress on joints of knees, hips, and ankles besides upper body, so that there is less risk of injury.

2.7. Importance of Posture and Spine in the Pilates Method

Posture and spine are important elements of PM. From the point of QOL, it is crucial to note whether the posture is good, healthy, and active for people's well-being or just the opposite. In this context, J. H. Pilates noticed that the thousands of people have protruding and hunch shoulders, and protruding abdomens. Nevertheless, the spine is designed to balance the body tolerably (Pilates & Miller, 1998). No matter how strong limbs people have, if they are not able to control their spines, i.e. the center the body, effectively, the limbs will not function actively as they should (Bass, 2004).

It is expressed that an inflexible spine makes people feel old (Pilates & Miller, 1998) therefore segmental control of the spine is a main necessity in Pilates method (Bass, 2004). To exemplify, roll up and roll over exercises articulate the spine with correct breathing. Rising from the floor or lowering to the floor should be done vertebra by vertebra. Aim is to restore the spine properly to its normal at

birth position with its increased flexibility. Simultaneously, lungs are completely employed and refilled to their fully capacity (Pilates & Miller, 1998). Primarily being focused on strengthening the muscles of center, the core, PM corrects the asymmetries in spine. A practitioner is able to use every muscle of body while reorganizing the posture during a Pilates session. Since most of the exercises are performed lying down, reprogramming postural abnormalities and improper habits is easier (Bass, 2004).

Proper positioning of body, or correct posture, can be successfully achieved when the entire mechanism of body is under perfect control (Pilates & Miller, 1998) like in neutral position that allows for more movement capacity with less effort, therefore, practitioners feel invigorated, refreshed, and constantly energized to keep on enjoying. Besides acting as a shock absorber to the heavy lifting, or bumps and bruises, good posture makes possible functioning of the organs through providing adequate space, support, and mobility for the necessary processes to sustain life like breathing, digestion, and excretion. Good posture also provides a better foundation from which to act, to move and to feel free with one's body (Fernandez, 2014). Conversely, having bad posture has some negative effects on body. For example, it can range from headaches to jaw pains that caused by tilting the head forward too long, therefore there is a tendency to clench the jaw. Moreover, shoulder and back pain can occur because of keeping the shoulders rolled in when seated by tightening some muscles and weakening the others. Bad posture that can also decrease lung functioning to cause reduced amount of space available like in position of hunching over while seated by placing excessive pressure on the thoracic area. Furthermore, when the lower spine is held at a flexed position for a long time, some gastrointestinal problems may appear since the natural rhythm and flow of the body is forced to a slowdown (Fernandez, 2014).

Categorizing the true age that people have does not depend on only the biological age or how they feel, but also it depends on degree of natural and normal flexibility of the spine they have throughout life. To illustrate, if one has an inflexible stiff spine at a young age he or she is old, however if it is completely flexible at an old age he/she is young (Pilates & Miller, 1998). The movements of PM are instrumental to maintain good posture and alignment through activating

the center of the body, powerhouse that structured around the stomach, lower back, and hips (Siler, 2000). While performing PM, it is necessary to elongate the spine to operate body, nervous system, and blood flow more efficiently (Winsor, 1999). The action of scooping belly, or pressing navel to spine, thereby using abdominal muscles to reinforce the paraspinals strengthens and stretches muscles of lower back, and allows for creation of a flat abdominal wall (Siler, 2000). The way to hold up spine properly is possible to strengthen the abdominal muscles and to learn controlling this region through intense concentration and control (Winsor, 1999).

During a Pilates session it is recommended to stabilize the pelvis and lumbar spine in either a neutral or an imprinted position. When the body is supine in neutral placement, lumbar spine is in the position of normal curve, slightly convex anteriorly, i.e. a triangle is formed by the ASIS and the symphysis pubis to lay parallel to the floor (Merrithew, 2003). This is the most stable and optimal position to be in because the cartilage between each vertebra acts as shock absorber. Furthermore, the paravertebral muscles work more efficiently to protect the spine from the effects of gravity as the length and strength of opposing muscle groups are more balanced (Fernandez, 2014; Merrithew, 2003). On the other hand, an imprinted position, is a slight posterior pelvic tilt with a slight lumbar flexion, should be used to ensure stability of the pelvis if neutral alignment cannot be stabilized. In supine, the pubic bone is kept slightly higher than the ASIS (Merrithew, 2003).

Correct positions of vertebrae, ribcage, and scapulae are important during execution of a Pilates series. Therefore, head and neck placement, rib cage placement, and scapular stabilization are explained in detail.

2.7.1. Head and Neck Placement

While executing the exercises in a PM session, the cervical spine should be in its natural curve, long and lengthened with slight upper cervical flexion at the cranio-cervical junction to engage the deep neck flexors in order not to cause any strain (Mallin & Murphy, 2013; Matty & Burdell, 2006; Merrithew, 2003). At the same

time, the skull should be balanced directly above the shoulders while sitting in neutral and supine. To stretch and strengthen the muscles at the back of neck, powerhouse is activated, chin is drawn to chest, and eyes are directed to navel. If there is a kyphosis, or forward head posture, and weakness in neck muscles, head should be placed on a pad or foam cushion to support and to prevent cervical spine from overextension (Matty & Burdell, 2006; Merrithew, 2003).

2.7.2. Ribcage Placement

Rib cage placement, which is also important in a PM session to maintain correct alignment, is in company with breathing principle and maintaining abdominal engagement. When supine and neutral, a practitioner neither allows the rib cage to pop or flare out from the abdominal wall, i.e. to lift away from the floor, nor pushes the rib cage into the floor (Mallin & Murphy, 2013; Merrithew, 2003). When this happens in supine, there is a tendency for lower posterior aspect of the ribcage to lift away from the mat. Lifting away the ribcage is generally resulted from over activation of erector spinae (Mallin & Murphy, 2013).

2.7.3. Shoulder Blade Placement (Scapular Stabilization)

Scapular movement and stabilization are also significantly important to refrain tensing up the shoulders while performing the movements. It is essential to lengthen the vertebrae from below the skull by pressing out through the crown of the head when sitting, standing, or stretching forward, or pressing the back of the neck toward the mat when lying flat (Siler, 2000). In order to avoid tendency to overwork the upper trapezius and other muscles of neck and upper shoulders, stabilization of the scapulae on the rib cage is necessary. Having no bony attachment to the rib cage and spine enables the scapulae to have a great mobility to perform gliding upward (elevation), downward (depression), inward (retraction), outward (protraction), and rotation upward and downward. Stabilization of the scapulae is provided by the feeling of gently sliding them down the back and toward the spine in a V shape (Merrithew, 2003) through co-activation of serratus anterior and lower trapezius (Mallin & Murphy, 2013).

2.8. Basic Principles and Key Elements of the Pilates Method

PM essentially aims to stretch and strengthen the body in keeping with balance and alignment through focusing on posture, length, and muscle control. There are many different styles of teaching employed in order to reach these goals (Siler, 2000). It was suggested that Pilates exercises, which may not be appropriate for all individuals, should be prescribed judiciously, modified appropriately, and taught by individuals properly trained (Lim et al., 2011). Within the last two decades, exercises of PM have infused new insights into the fitness industry and rehabilitation methods (Latey, 2001). Over the years, PM has taken many different shapes and forms as it has passed from trainer to trainer. Some styles have taken on a genuinely therapeutic approach and are taught in a slower and more deliberate manner. Others have maintained an athletic and more dynamic approach focusing more on movement and rhythm (Siler, 2000).

Current PM exercising styles can be divided into a traditional, or repertory, approach and a modern approach (Latey, 2001). Traditional approach of Pilates method, which was designed by J. H. Pilates, carries out set exercise sequences and set numbers of repetitions with little modification for individual problems. On the other hand, exercises in modern approach are adapted and simplified to be appropriate for the usage of general population named as Pilates techniques (Gladwell et al., 2006) under the favour of existing movement theories and evidence-based rehabilitation principles (Abanoz, 2010). Main emphasis is to understand the body and to improve awareness by tailoring the exercises suitable for particular needs, weaknesses, and strengths of people (Latey, 2001). Modern or modified PM, which is based on parameters adapted for rehabilitation purposes, was designed for improvement of posture and controlling the movements (Rydeard et al., 2006; Johnson et al., 2007). It is achieved through neuromuscular control techniques that increase the lumbar spine stability due to targeting of core muscles or the local stabilizers muscles of the lumbar-pelvic region (Gladwell et al., 2006; Rydeard et al., 2006). In modern PM, intensity and complexity of the series could be increased by including more dynamic and advanced movements (Gladwell et al., 2006).

In order to get optimum results through PM, there are some principles that mean to a set of biomechanical body awareness topics (Merrithew, 2003). There are some key elements to support the exercises, as well. The range of principles varies from 5 to 10 that are introduced by various approaches or experts to form basis for each Pilates movement. Traditional principles of PM are clarified as concentration, control, centering, precision, breath, and flow (Bass, 2004; Latey, 2002; Matty & Burdell, 2006). In addition, King (2008) added two principles of isolation, and routine. Similarly, Fernandez (2014) introduced four more of awareness, balance, efficiency, and harmony. Instead of being apart from each other, they work together to create intelligent exercise to be safe and effective (Merrithew, 2003). According to Winsor (1999) there are tools to apply in PM, namely, breathing, relaxation, concentration, control, and heightened sense of fluidity. These principles are supported by key elements, which are powerhouse, position of the neck, and Pilates stance. Since PM is one of the mind-body practices, explaining the principles or key elements to the practitioners at the first and foremost provides awareness regarding functioning of their bodies, enhances skill level and mindfulness, and offers control whilst performing the exercises to get benefits (Merithew, 2003).

The following information elaborates on basic principles of both PM.

2.8.1. Breathing

Breathing is a bodily function performed whether people are conscious of it or not (Winsor, 1999) is the first act of life, and the last (Pilates & Miller, 1998), so it is imperative to learn breathing correctly (Siler, 2000). It means to move air into and out of lungs in coordination with exercise (Latey, 2002) to enable a practitioner to perform the movement in good quality (Matty & Burdell, 2006).

J. H. Pilates observed that many people had never learned to master the art of correct breathing. It is endorsed to practice breathing until it becomes habitual, automatic, and subconscious to result in blood stream receiving its full quota of oxygen and preventing too much fatigue (Pilates & Miller, 1998) as proper breathing helps to control the movements both during the exercises and in daily

life (Siler, 2000). The point is very mindful, each movement is connected to a specific manner of breathing (Winsor, 1999) which is a means for better concentration as well as relaxation, muscle recruitment and effective oxygenation of blood (Fernandez, 2014; Merrithew, 2003; Siler, 2000) to nourish active muscles, and release detrimental chemicals stored in muscles (Winsor, 1999). On inhalation, body is filled and replenished with oxygen to energize and revitalize the system and on exhalation, lungs are emptied of stale air, detrimental chemicals, and noxious gases from the depths of lungs (Matty & Burdell, 2006; Siler, 2000; Winsor, 1999).

According to J. H. Pilates rolling and unrolling of the spine vertebra by vertebra cleanse lungs effectively by removing impure air and taking in pure air (Pilates & Miller, 1998). People may need to reeducate themselves through breathing into the back area that expands the ribs, filling the bottom-most portion of the lungs (Winsor, 1999) for more beneficial and more influential gas exchange (Merrithew, 2003). A practitioner inhales through nose while expanding back, and exhales through mouth while drawing ribs together and scooped, i.e. drawing the navel to the spine (Matty & Burdell, 2006). This process is supported by deep stabilizer of pelvis, transversus abdominus, which plays a role in maintaining intra-abdominal pressure, aids in forcing exhalation (Bass, 2004).

The complete exhalation and inhalation stimulate all muscles into greater activity (Pilates & Miller, 1998). Executing the exercises without stopping accompanied by breathing makes the blood pump through the body to cause an aerobic effect. J. H. Pilates wanted to wash the blood completely with clean oxygen so it reaches every part of the body. He called it as an internal shower (Bass, 2004) that provides people to become more clear-headed, feel increased stamina, release lactic acid, and become more relaxed (Winsor, 1999). This helps practitioners to internalize, to get inside their bodies and to begin controlling muscles they have probably never even considered consciously. It puts them in touch with themselves and initiates the idea of regaining control of automatic and habitual behavior (Bass, 2004).

2.8.2. Control

J. H. Pilates called this method as the art of contrology (Matty & Burdell, 2006) thought that people should not be directed by the reflex movements of muscles to retrain mind over control of body (Fernandez, 2014). PM is a series of movements which provide strength and mental ability to control the number of repetitions specified, are executed while keeping alignment and stability within the frame of body, i.e. parameters indicated by the width of the shoulders and hips (Bass, 2004; Winsor, 1999). Exceeding these boundaries may engender injuries (Bass, 2004, Fernandez, 2014; Matty & Burdell, 2006; Siler, 2000; Winsor, 1999) as he built his method on the idea of muscle control that meant to attentive and thoughtful movements to prevent the primary reasons of injuries (Siler, 2000). In order not to overly exert body during exercises, control is the key to the quality of movements for close management of posture (Latey, 2002). Instead of being performed by momentum of throwing a part of body, each movement is practiced in a controlled manner by breathing, concentration, and stretching (Bass, 2004; Winsor, 1999).

2.8.3. Concentration

Concentration is the cognitive attention required to perform exercises (Latey, 2002) teaches to focus on body over again. It helps to take time away from the external problems that may be out of the direct control. It also contributes to direct attention to what people can change that is the way people move, breathe, and perform the daily tasks physically (Fernandez, 2014).

Since PM necessitates a mind-body connection (Matty & Burdell, 2006), none of the other principles can be achieved without focusing of mind over body. Brain and body work simultaneously when a practitioner is mindful while executing the movements (Winsor, 1999). It is the mind that wills one's body into action, so it is advisable for a practitioner to be present with his/her mind, to pay attention to the movements, and to note how muscles response to the attention while conducting a series. When focused on an area, it is possible to notice feeling of working that area much more through power of the mind (Siler, 2000). Since there is a danger to tend poor technique when the movements are learnt (Bass, 2004), it is safe to

focus on each exercise and part of body working during practicing (Matty & Burdell, 2006). When ability to concentrate on a specific area of body develops, quality of movements increases directly (Winsor, 1999).

2.8.4. Centering

Centering is ability for every single exercise to find and use the powerhouse that energy begins from there and then flows to extremities (Bass, 2004; Matty & Burdell, 2006). Centre of gravity lies just below the point where pelvis meets spine (Bass, 2004) and concerned attention in PM is on tightening of the muscular center of body that locates between the pelvic floor and ribcage (Latey, 2002). All movements initiate from this central area and usage of muscles in this region lead to flowing movement (Bass, 2004). Strengthening the center, the core muscles or powerhouse, acts as a support to spinal column for both better posture and health in general (Fernandez, 2014).

Exercises of PM mainly focus on stabilization of the core, the powerhouse (Kaya et al., 2012) that is the band of the muscles to circle the body just under the belt line (Siler, 2000). J. H. Pilates mentioned the powerhouse, or core, the largest powerful group of muscles at the very centre of the body, which moves and stabilizes the trunk and pelvis (Bass, 2004). All energy for the Pilates exercises initiates from the powerhouse and flow outward to the extremities. Physical energy is exerted from the center to coordinate the movements (Siler, 2000). When exercises are performed correctly and there is control and stability at the centre, or powerhouse, 'inside' is being used to be root of all movements (Bass, 2004; Matty & Burdell, 2006; Winsor, 1999). The common view with PM is that any change created in the core region could affect the quality of distal segmental motion (Kaya et al., 2012). Abdominal muscles act as a support for the spine and organs. Thus, strengthening this area provides some benefits for alignment and posture, elimination of problems related with chronic pain, relieving back and neck problems, and enhancing overall health (Winsor, 1999). Through PM, body learns to channel its energy, synchronizes its muscle activity with the minimum amount of effort, and leaves the limbs and extremities free of tension (Bass, 2004).

Anatomically, powerhouse is the place that connects the abdomen with lower back and hips. J. H. Pilates named this area as the girdle of strength (Winsor, 1999). It includes inner and outer thighs, hip muscles, abdominal muscles of rectus abdominis, external and internal obliques, transversus abdominis, pelvic floor muscles, back muscles of latissimus dorsi, erector spinae, and multifidus, and diaphragm muscle (Bass, 2004; Detz, 2005; Fernandez, 2014; Gladwell et al., 2006; Matty & Burdell, 2006; Winsor, 1999). The muscles stabilizing this area are transversus abdominus, a deep abdominal muscle which draws the abdomen in towards the spine but does not move the bones; and multifidus, deep spinal muscles which activate the length of the spine, and make small adjustments for optimal performance to the movements of the trunk (Bass, 2004). Initiating all movements from powerhouse helps to strengthen the smaller muscles and ligaments that support larger muscles and joints (Winsor, 1999).

More specifically, the rectus abdominis runs from pubic bone to sternum. It does most of the flexion while bending forward and tilts the pelvis. The external obliques that run diagonally downward from lower ribs to the top of pelvis are attached to the rectus abdominis by connective tissue. These muscles help twisting torso so they are worked at most during side-to-side exercises. The internal obliques that run diagonally upward from pelvis to lower ribs are under the external obliques. They are active in twisting movements to help the external obliques (Detz, 2005). The transversus abdominis is known as the body's natural corset (Fernandez, 2014), which is the band of muscle that is two inches (1 inch = 2,54 cm) below the navel and wraps around the torso (Matty & Burdell, 2006). It exists from front to back, attaches to the lower ribs and the spine, runs horizontally to attach to rectus abdominis. It is beneath the obliques and is the deepest of the abdominal muscles. It pulls the abdominals inward and contracts when other abdominals work (Detz, 2005).

The pelvic floor muscles, which form a sheet of muscle between pubic bone, coccyx and two ischium (Merrithew, 2003), are responsible from preventing incontinence (Fernandez, 2014). The latissimus dorsi attaches at the top of hipbone, extends over the lower and middle back, and attaches at the rear of upper arm. It is a large triangular-shaped muscle that moves arms behind body and

assists to rotate shoulders. The erector spinae is made up of three muscle pairs called spine extensors, run the entire length of spine and attach at ribs and spine. They keep the spine in upright position during the movements (Detz, 2005).

The abdominals are in association and conjunction with the multifidus muscle that is the anchor for the erector spinae group (Winsor, 1999). The multifidus gets stronger when it is on stretch, i.e., the lumbar is in flexion. Generally if a muscle is lengthened it has a tendency to lose strength (Fernandez, 2014).

2.8.5. Precision

Precision is accuracy of exercise technique (Latey, 2002) to enable practitioners to reach perfect form in each movement (Matty & Burdell, 2006). It implies to strive for correctness that is helpful to understand compensation capacity of body so people may act against some improper habits and maintain more correct alignment. It is the aim of doing the best with every task, which mainly results in success (Fernandez, 2014). In PM, each exercise has a purpose and each instruction is crucial for achievement of whole through focusing on doing precise and perfect movements (Siler, 2000). It is safe for practitioners to be conscious of every part of their bodies while checking themselves continually from head to toe. They need to be definite and accurate in their movements, work on correct placement and coordination without losing fluidity and grace (Bass, 2004).

2.8.6. Flow

Subconscious rhythm is inherent in most people while walking, running, gesturing, and moving in general without thinking. This is the way also PM was designed to work. The natural rhythm of body is recreated by flowing from one movement to the next (Siler, 2000). This term defines smooth transition of movements within the exercise sequence (Latey, 2002). There are no static or isolated movements in a Pilates series as the body does not naturally function that way (Siler, 2000). Each movement has a specific point at which it starts and a place it ends, i.e. the end of one movement is just the beginning of another (Winsor, 1999). The order of the Pilates exercises is constant with fluidity and each movement is initiated through

the powerhouse with control, within the frame of body. Movements are not necessarily slow, instead, they are recommended to be graceful and fluid with a dynamic energy, not rushed or jerky (Matty & Burdell, 2006; Winsor, 1999).

Flow is decisive in making the movements beautiful, finding the aesthetic and enjoying the rhythm in one's daily living. It is not to trying, controlling, or changing what is not in one's hands, but rather being like water and to adapt to the ever-shifting patterns that may be encountered throughout life (Fernandez, 2014). For a movement to flow, all the muscles needed work together during its execution. Besides the main movers, many other muscles take part in the movements. During the learning phase of a new movement, those muscles learn pace of movement to start contracting while performing it gently. At the beginning, practitioners might feel uncoordinated to a degree, however, practicing makes their brains accustomed to the order of the instructions needed to send impulses to the appropriate muscles to acquire willed flow (Bass, 2004). To sum, practitioners move in a very controlled mood to free their minds, and they use their minds to move the bodies (Winsor, 1999).

In addition to the fundamental principles of the exercises, there are several additional principles, or key elements, that are crucial to the actualization of exercise goals. They are named of imagination, awareness, harmony, intuition, efficiency, integration, balance, integrated isolation, relaxation, lengthening, and Pilates stance.

2.9. Physical and Psychological Effects of the Pilates Method

A growing interest regarding PM in worldwide has fostered increased research activity into effects of this method on participants' physical and psychological health. Pilates method, which was named as Contrology, is a proper technique of heightening all systems of body to its ultimate level. It incorporates the effectuality of aerobics, weight training, tai chi, yoga, and meditation and that combination makes it of great use. Overall benefits are stated as to strengthen muscles, make limbs more flexible, improve functions of vitals and endocrine glands, purify mind, and develop goodwill (Pilates & Miller, 1998). Fernandez (2014) supported

that it also alleviates some postural pain like neck or back pain. Moreover, it improves blood circulation, reduces unnecessary pressure of vital organs such as the lungs, heart, and intestines. Furthermore, it offers a well-proportioned appearance, and ensures stance of confidence.

PM with its moderate and low-impact features might be considered to improve core strength, functional fitness, posture, and flexibility to serve as a protective mechanism against the physical and psychological problems in daily routine. It enhances functional ease of movements of individuals with medical conditions, such as low-back pain, rheumatoid arthritis, heart disorder, menopause, headache, joint stiffness, and muscle pain as well as healthy people. There has been an extensive literature on significant positive effects of PM on people. Research on physical effects of PM shows increase in functional capacity (Eyigor et al., 2010; Guimaraes et al., 2012; Küçükçakır, 2011; Vieria et al., 2013), improvement in leaping ability in gymnasts (Hutchinson et al., 1998), increase in muscular endurance and flexibility in healthy adults (Kloubec, 2010; Rogers & Gibson, 2009; Segal et al., 2004), increase in muscular strength in MS patients (Marandi et al., 2013), beneficiary effects on general health condition of elderly (Pourvagher et al., 2014b; Vieria et al., 2013), increase in the level of serotonin hormone (Da Fonseca et al., 2009; Rogers & Gibson, 2009), increment in strength and reduction of pain in joints (Angın, 2012; Boguszewski et al., 2012; Korkmaz, 2010; Küçükçakır, 2011; Notarnicola et al., 2013; Öksüz, 2012), improvement in cardiovascular capacity in healthy university students (Duruturk et al., 2013), positive effects on anthropometric parameters (weight, BMI, and body fat ratio) (Korkmaz, 2010), betterment in the parameters of health-related quality of life (Angın, 2012; Bullo et al., 2015; Duruturk et al., 2013; Eyigor et al., 2010; Küçükçakır, 2011; Leopoldino et al., 2013; Öksüz, 2012; Pérez et al., 2014; Vergili, 2012), development in functionality (Cruz-Ferreira et al., 2011a; Öksüz, 2012), improvement in personal autonomy (de Siqueira Rodrigues et al., 2010). PM also takes the participants less time to accomplish their daily life activities (Bullo et al., 2015; Curi Pérez et al., 2013; Pérez et al., 2014) and decreases level of fatigue (Bulguroğlu, 2015; Eyigor et al., 2010). Moreover, it is influential to increase kinesthetic awareness, better posture, stability, and coordination, advance

balance, flexibility, endurance, and muscle strength, and decrease reaction time and falling risk (Angın, 2012; Babayiğit, 2009; Bulguroğlu, 2015; Bullo et al., 2015; Caldwell et al., 2009; Duruturk et al., 2013; Hassan & Amin, 2011; Öksüz, 2012; Pérez et al., 2014; Schroeder, 2008; de Siqueira Rodrigues et al., 2010; Sorosky et al., 2008; Vécseyné Kovách et al., 2013).

In addition to the beneficiary physical effects, research on psychological effects of Pilates method shows improvements in sleep quality (Caldwell et al., 2009; Duruturk et al., 2013; Leopoldino et al., 2013), mood states (Boguszewski et al., 2012; Bullo et al., 2015; Caldwell et al., 2013; Pérez et al., 2014), self-regulatory and self-efficacy (Caldwell et al., 2009), self-esteem (Doğan & Eryılmaz, 2013; Reppa, 2013), self-confidence (Öztürk, 2014), physical body image and self-perception (Demir, 2013), satisfaction with life (Cruz-Ferreira et al., 2011a; Klizas et al., 2012; Öksüz, 2012), perceptions of appreciation by other people, physical appearance, and total physical self-concept (Cruz-Ferreira et al., 2011a), psychological perception of health positively (Cruz-Ferreira et al., 2011a; Notarnicola et al., 2014), perceived subjective wellbeing (Doğan & Eryılmaz, 2013; Özdemir & İrez, 2010), improvements in emotional reaction (Durutürk et al., 2013), emotional components QOL (Leopoldino et al., 2013), and mental health of QOL (Vieria et al., 2013), and enhancement in social physical concern levels of FMS patients (Korkmaz, 2010). Furthermore, PM leads to decrease in depression symptoms (de Siqueira Rodrigues et al., 2010; Durutürk et al., 2013; Eyigor et al., 2010; Hassan & Amin, 2011; Korkmaz, 2010; Öksüz, 2012), anxiety (Babayiğit, 2009; Duruturk et al., 2013; Öksüz, 2012; Reppa, 2013), and perceived stress (Caldwell et al., 2013).

As a result of the mentioned studies on physical and psychological variables, PM might be a solution to escape negative aspects of life as physically, psychologically, behaviorally, and socially. When individuals provide interconnection and harmony between their mind and body, they may feel more increase in physical functionality, a balance in mental health, enhancement in self-identity scopes such as self-confidence, self-esteem, self-efficiency, and self-awareness.

CHAPTER 3

METHODOLOGY

In this section research design, study group and sample, research process, ethical matters, data collection, data analysis, study of validity and reliability are clarified.

3.1. Research Design

The purpose of this study is to determine women practitioners' opinions on how regularly practicing PM affect their physical and psychological wellbeing. In order to fulfill this goal, opinions of women in consequence of participation in PM would be revealed regarding effects of this method on recognition of their physical and psychological properties, self-identity, work and daily lives, and interpersonal relationships. For the purpose of obtaining information in-depth in the matter of physical and psychological wellbeing of women who experience PM, the qualitative research method was applied. Systematic steps of basic qualitative research design was used and semi-structured interview method was applied.

There are various explanations in literature regarding general characteristics of qualitative research method that is a logical form of inquiry to allow gaining insight and understanding about the human condition (Pitney & Parker, 2009). It determines to mention qualities like feelings, thoughts, and experiences; namely, these concepts relevant to interpretive approaches to knowledge. In order to describe and understand those concepts, non-numerical data and analysis are used in qualitative research (Gratton & Jones, 2004). According to Pitney & Parker (2009) its key attributes include a humanistic orientation by focusing on people, using textual data, discovery and exploration in natural settings, and interpretation

through inductive reasoning. Researchers draw meaning from textual data, and work with small groups of participants. Qualitative research also provides rich descriptions, identifies data patterns, and builds theories through development of conceptual model (Pitney & Parker, 2009).

It is introduced that the qualitative research takes place in the natural setting, relies on the researcher as the instrument for data collection, is inductive, is based on participants' meanings, is emergent, often involves the use of theoretical lens, is interpretive, and is hollistic. According to content of the present study, systematic steps of basic qualitative research design seem to be appropriate to be explained. According to Merriam (2009), the comprehensive aim of a basic qualitative research design is to understand how people interpret their experiences, construct their worlds, and what meaning they attribute to their experiences.

As the qualitative research process was explained by Creswell (2009), data collection includes the purposeful and convenience sampling approaches and interview form. Because, data analysis is an ongoing process that involves analyzing participants' information. Researchers typically employ general analysis steps as well as those steps found within a specific strategy of inquiry. More general steps include organizing and preparing the data, an initial reading through the informatic analysis, using computer programs, representing the findings in tables, graphs, and figures, and interpreting the findings. In the present study, when the interviews were recorded, they were transcribed, put in a written form, and then data was analyzed inductively, sequentially. The inductive analysis followed basic qualitative research design procedures.

3.2. Study Group and Sample

The main aim of this study is to reveal women practitioners' opinions on how regularly practicing PM affect their physical and psychological wellbeing to articulate that this technique can be useful to all society. The study was founded on the representation basis that the sample is non-probability sampling. As being based on the concept of non-random selection, non-probability sampling is also

known by different names such as deliberate sampling, purposive sampling and judgment sampling (Kothari, 2004).

In accordance with purpose of the study, on the basis of purposive and convenience sampling methods were used on the subject of determination of the participants. The general category of purposeful sampling has many subtypes that criterion sampling is one of them. It is also named as criterion-based selection (Maxwell, 1996, cited in Pitney & Parker, 2009) that necessitates the researcher for determining beforehand a number of criteria to select participants. Choosing the participants depend on some particular criteria of properties, attributes, features, characteristics, or specific experiences (Pitney & Parker, 2009). In other words, in this sampling design, items for the sample are selected deliberately by the researcher; for constituting a sample the particular units of the universe are purposively chosen on the basis that the small mass will be typical or representative of the whole (Kothari, 2004). In convenience sampling, sample is chosen as it is convenient with respect to place, attainability, etc. (Gratton & Jones, 2004).

As a consequence, this study was conducted with women in Ankara who practice PM exercises regularly since the researcher lives in Ankara. For the purpose of this study 32 participants were selected to interview. The participants were adult females younger to older, and relatively more motivated and more active individuals who conduct Pilates exercises. There was self-finance participation of the participants for each Pilates lesson.

3.3. Pilates Program

Pilates exercise program for the participants was coached and supervised by a certified Pilates instructor who graduated from physical education and sport department. Pilates mat exercises were performed in the forms of either private lessons for one person or group lessons for 2, 3, 4, or maximum for 5 person. Participants performed the lessons once, twice or three times per week for duration of 50 to 60 minutes. In each session, some supportive apparatus were used

alternatively, such as light, medium, and hard levels of resistance bands, Pilates circles, mini (20 to 25 cm in diameter) and big balls (55 to 65 cm in diameter).

The participants were asked whether they had any systemic and/or musculoskeletal complaints at the beginning of the first meeting and every session. According to the responses, movement modifications were executed to ease or make harder the exercises.

The basic principles of PM were explained to participants at the beginning of every session and reminded when they were necessary. In addition, balance, concentration, flow, body awareness, and control elements were reminded. In each lesson breathing, proper body alignment including stabilization of pelvis, spine, rib cage and scapulae replacement, and recruitment of core muscles were emphasized. The participants were trained to activate the powerhouse that represents the isometric contraction of the transversus abdominis, perineal, gluteal, and multifidus muscles during breathing (da Fonseca et al., 2009; Gladwell et al., 2006; Muscolino & Cipriani, 2004).

The exercises were described in detail by verbal instructions and demonstrated by the instructor depending on the situation. Some classes were conducted by performing the exercises together with the participants and the instructor who was a model to show the correct movements.

Difficulty level of the exercises was adjusted so far as participants' capacities and needs as technique and time of training advanced. Exercises were progressed steadily starting at the beginner level to intermediate and advanced levels by observing improvements in participants' conditions. When required, the movements were modified in the direction of physical capabilities of each participant diversely from others in-group lessons. As stated by Siler (2000), the necessary modifications were made by the instructor to ensure that the participants were working at the proper level for their bodies, and they were not tensing their muscles while performing the movements. Additional exercise modifications were included during each session in order to avoid monotony.

All participants were recommended to keep optimum range of motion to protect their joints and muscles. As pain is the defence mechanism of body, the participants were also directed to apprise the instructor in case of any discomfort or soreness during the lesson to prevent any injury. At this stage, uncomfortable exercises were diversified by diminishing lever lengths of limbs while maintaining proper position of spine. Once adaptation was impossible to serve a similar purpose, the exercise was replaced for another one. Moreover, the participants were informed to perform the exercises in their optimum level of performance instead of feeling of exhausted because of high intensity. The Pilates instructor gave feedback consistently to participants during the classes in order not to cause any error regarding performing the movements and to enhance capacity of mind and body. According to Siler (2000) it is supposed to be safe of each exercise for body in PM without causing any pain in joints. If an exercise puts an unnecessary strain or load on an area of the body, it is required to revise the instructions to make sure one uses the muscles and joints properly. It is advisable to leave the exercise when the practitioner still feels pain, since some exercises are not suitable for all.

Depending on physical performances of participants, numbers of the exercises were performed in various numbers. Besides 10 basic warm up movements, beginner level of participants performed nearly 34, intermediate level of participants performed roughly 37, and advanced level of participants performed approximately 46 exercises per session, with each exercise being repeated minimum 3 to maximum 10 times on average.

Each session consisted of 5 minutes of breathing and warm-up, 40 to 45 minutes of conditioning phase, and 15 to 10 minutes of cool-down including stretching exercises in accordance with protocols used in Pilates literature. The music used during lessons was selected according to rhythm of exercises.

Breathing and warm-up parts: Breathing exercises were practiced in both seated and supine positions. Lateral thoracic breathing into the lower rib cage three dimensionally was encouraged to expand the rib cage laterally and allow the

breath to open the back of the rib cage. These areas are neglected mostly, however, gas exchange is achieved there more efficiently (Merrithew, 2003). This form of deep breathing does not restrict the amount of taking oxygen while bending, rotating, or moving the body (Bass, 2004; Merrithew, 2003). This form of deep breathing does not restrict the amount of taking oxygen while bending, rotating, or moving the body.

Warm up is vital to stimulate the sensory motor system before beginning the mat exercises (Merrithew, 2003). The goal is to coordinate breath with movement and to connect mind and body. General and optimum recommendation for breathing was that air entered in through the nose, down the throat and into the lungs to inflate and fill up the ribcage. The exhalation was performed through mouth and forced that helped to create an abdominal brace, fully engaging all the abdominal muscles by bilaterally contracting the obliques.

The general purpose of the low intensity level warm up was to increase body core temperature, prepare muscles, joints, and concentration of mind for movements that would follow. Warm-up section consisted of elevation, depression, retraction and protraction movements of shoulders and scapulae, arm circles, imprint and neutral positions of spine, shoulder bridge for articulation of vertebrae, half roll down to stimulate abdominals, and half back extension exercises for back muscles.

Conditioning part: This part included a series of exercises for abdominals, back, hips, chest, and limbs to strengthen and flex them. Instead of performing the exercises in uncontrolled or jerky version, they were recommended to perform in a slow and controlled manner for safety, effectiveness and smooth transition one exercise to another.

The matwork exercises of PM were practiced through following movement sequences of Stott Pilates (Merrithew, 2003). There are three levels that include essential (beginner) (E), intermediate (I), and advanced (A). Level of essential, or beginner, was applied in all levels. They were introduced according to practice sequence and number of repetitions. The Pilates mat work program is introduced in Table 1.

Table 1
The Pilates Mat Work Program

MATWORKS				
LEGEND: E Essential Level I Intermediate Level A Advance Level				
Warm-Up		E	Breast Stroke	5 to 8 Reps
	Breathing	E	Shell Stretch	
	Imprint and Release	E	Saw	3 to 5 Reps
	Hip Release	I	Open Leg Rocker	8 to 10 Reps
	Spinal Rotation	I	Neck Pull	5 to 8 Reps
	Cat Stretch	E	Obliques Roll Back	3 to 5 Reps
	Hip Rolls	I	Jack Knife	4 to 6 Reps
	Scapula Isolation	E	Side Kick	8 to 10 Reps
	Arm Circles	E	Side Leg Lift Series 1 2 3 4 5	5 to 10 Reps
	Head Nods	A	Scissors in Air	5 to 10 Reps
	Elevation and Depression of Scapula	A	Bicycle in Air	5 to 10 Reps
	Exercises	Reps / Sets	I	Double Leg Kick
E	AB Prep	5 to 10 Reps	E	Spine Stretch Forward
E	Breast Stroke Prep 1 2 3	3 to 5 Reps	A	Teaser Series 1 2 3 4
E	Shell Stretch		A	Swan Dive
E	Hundred	10 Sets	I	Swimming
E	Half Roll Back	5 to 8 Reps	E	Shell Stretch
E	Roll Up	5 to 8 Reps	I	Leg Pull Front
E	One Leg Circle	5 Reps	A	Leg Pull
E	Spine Twist	3 to 5 Reps	I	Hip Twist
E	Rolling Like a Ball	8 to 10 Reps	A	Control Balance
E	Single Leg Stretch	8 to 10 Reps	A	Crokscrew
E	Obliques	8 to 10 Reps	A	Side Kick Kneeling
I	Slow Double Leg Stretch	5 to 10 Reps	E	Seal
E	Double Leg Stretch	5 to 10 Reps	I	Side Bend
E	Scissors	8 to 10 Reps	A	Twist
I	Sholder Bridge	2 to 3 Reps	A	Rocking
I	Roll Over	6 to 8 Reps	A	Boomerang
I	One Leg Kick	5 to 8 Reps	I	Push Up

Cool-down and stretching parts: The purpose of the cool-down at the end of each lesson was to relax, increase flexibility and promote mind-body awareness. This section included exercises of child's pose, cat stretch and supine relaxation for spine; stretching for hamstrings, quadriceps, calves, gluteus, abdominals, pectorals, upper, middle, and lower back muscles, neck, shoulders, and arms for 15 seconds to 30 seconds for each.

3.4. Participants of the Research

Physically active 32 women Pilates practitioners in Ankara took part in the study ages between 27 to 74. Participants were practicing mat PM exercises with the same Pilates instructor by one on one, or in a group session at home or at work

place. Period of time that the participants practice PM regularly was between 8 months to 17 years. When grouping them, 4 of the participants had been practising PM for less than a year, 18 of them between 1 to 3.5 years, 5 of them between 5 to 9 years, and 5 of them between 12 to 17 years. Coming from different professions, 22 of 32 women participants were working actively, 6 of them were retired, and 4 of them were housewives. In the part of demographic information, participants did not indicate their names on the interview form. According to the date order of the interviews, they were named starting from P1 to P32. As well as the demographic information, the participants were asked 24 interview questions to be responded verbally.

3.5. Research Process

As Gratton & Jones (2004) mentioned the research process in the present study followed eight steps of selection of topic, reviewing the literature, developing theoretical and conceptual frameworks, clarifying the research question, developing a research design, collecting data, analysing data, and drawing conclusions, sequentially.

3.6. Ethical Considerations

In order to accomplish this study, first of all, research permission (Appendix C) was obtained from Applied Ethics Research Center, at Middle East Technical University through number of 28620816/616 with protocol number of 218-EGT-162 from Human Research Ethics Committee. The researcher carried out the study during the academic years of 2014 and 2019, in Ankara, Turkey.

3.7. Collecting Data

Data of the study was collected through the semi-structured interview method. The interview questions of this study were inspired by the questions in Hawkins' (2004) study during the preparation process. A field specialist regarding English and Turkish translated those questions in Turkish. The appropriate questions regarding the subject of the study were used, unsuitable ones excluded, and new

ones were added. In order to obtain approval for the semi-structured interview form 5 field specialists were asked. The interview form of the research was sent to one academician who was also a Pilates instructor at Başkent University at Physical Education and Sport Department and one academician at Middle East Technical University at Physical Education and Sport Department to obtain approval, and some of the questions were cut from it. The final versions of the interview forms in Turkish and in English are offered in Appendix A and Appendix B, respectively.

3.7.1. Interview

The interview method of collecting data involves presentation of oral-verbal stimuli and reply in terms of oral-verbal responses (Kothari, 2004). In interviewing method participants have opportunity to talk about their own experiences in their own words, and to dilate upon any fields of interest or something considered as significant (Gratton & Jones, 2004). There are three types of interview guides that named as unstructured, semi-structured, and structured (Pitney & Parker, 2009). In the context of the present study, semi-structured interview method was carried out with 32 women participants. Through getting appointments from the interviewees, the researcher made interviews. The questions in semi-structured interview form were asked to the participants in the format of one-to-one meetings. The semi-structured interview includes a series of standard questions to ask all participants. However, it enables researcher to adopt a flexible approach to data collection. He/She can change the order of questions or probe for more information with complementary questions (Gratton & Jones, 2004; Pitney & Parker, 2009).

In qualitative interviews, the interviews are conducted by the reseacher in the forms of face to face, by telephone, or in focus groups with the participants. These interviews intend to elicit views and opinions from the participants (Creswell, 2009).

In face-to-face interview method, or personal interview, the interviewer asks questions generally in a face-to-face contact to the other person or persons. Personal interview offers some advantages that it is possible to get more

information about the respondent's personal characteristics and environment in greater depth. It is also likely to control the participants to lead them for more efficient returns in order not to cause non-responsiveness. By tailoring language of the interview questions in accordance with understanding and education level of the interviewee, misconception may be avoidable (Kothari, 2004). A face-to-face interview allows researcher to assess the participant's body language, facial expressions, tone of voice, which may be useful in some cases (Gratton & Jones, 2004). In this study, 7 participants were contacted through face-to-face interview method.

Telephone interview method is conducted by the way of contacting respondents on telephone itself, can be an appropriate method in some cases. It provides a quick access to respondents who otherwise cannot be contacted for one reason or the other. Also, replies can be recorded without causing embarrassment to respondents while the interviewer is able to explain requirements more easily (Gratton & Jones, 2004; Kothari, 2004). In this study, most of the participants (n=25) preferred to be contacted by telephone, rather than by the interviewer personally due to having lack of time. Therefore, it provided a quick access to participants who otherwise had difficulty to be contacted.

Interviews are recorded in the form of written notes, tape, or video recording. Recording the interview will allow more understanding and compliant to develop, which may result in more information being explained by the respondent. Therefore, it could result in far more data to be analysed, and enormous irrelevant material to be identified and eliminated (Gratton & Jones, 2004).

In this study, the interviews were recorded by using a tape recorder between the dates of December 13 to 28, in 2018. While the face-to-face interviews were made at participants' home, the telephone interviews were made at researcher's home. Before asking the questions of the interview, all the participants were asked for permission to record them. When the speaker of the mobile phone was turned on, the voice recording was made. Demographic information forms were filled up simultaneously by the researcher through explanations of the participants who interviewed on the phone and face-to-face. The duration of interviews varied

because some participants gave long answers while the others provided brief answers. The interviews took time of minimum 9 minutes and 25 seconds to maximum 40 minutes and 27 seconds.

3.8. Data Analysis

The qualitative content analysis was used in this study. Qualitative data analysis is carried out simultaneously with gathering data, making interpretations, and writing reports. It involves collecting open-ended data, based on asking general questions and developing an analysis from the information supplied by participants. Preparing the data for analysis, conducting different analyses, moving deeper into understanding the data, representing the data, and making an interpretation of the larger meaning of the data are included during data analysis process.

According to the generic form of analysis approach, the researcher collects qualitative data, analyzes it for themes or perspectives, and reports 4-5 themes (Creswell, 2009). Miles & Huberman (1994) suggested that qualitative data analysis consists of three procedures: data reduction, data display, and drawing conclusion and verification (cited in Gratton & Jones, 2004). Within this framework of the procedures, data was examined, coded and analyzed respectively by the researcher in the present study. Under the guidance of the introduced steps, data was organized and prepared for analysis through transcribing interviews.

Start with data reduction, the mass of interview transcripts were decoded and written in program of Microsoft word one by one for each participant's answer for each question. Second, all the transcriptions were read carefully to obtain a general sense of the information, and the most interesting and the shortest ones considered for the underlying meaning. After completing this task for several participants, list of all topics was made. Then, similar topics were clustered together and they were formed into columns as major topics, unique topics and leftovers. Later, a detailed analysis started with a coding process. Coding is the organization of raw data into conceptual categories, chunks or segments of text before interpreting the information provides some form of logical structure to the data (Gratton & Jones, 2004; Rossman & Rallis, 1998, cited in Creswell, 2009). A number of appropriate

codes were identified to determine a boundary for analysis of the data. While the data was being coded, the data was carefully read, the important concepts and themes were used in accordance with research question. Later, these topics were abbreviated as codes and written next to the appropriate segments of the text whether new categories and codes emerge. The most descriptive wording for the topics were found and turned into categories as final decision.

During the coding process, as Creswell (2009) noted, it is functional to use qualitative computer software programs or hand code for coding, organizing, and sorting the information in writing the qualitative study. In this study, the researcher conducted the analysis using qualitative data analysis software NVivo that allowed identifying concepts from the transcripts and organize them into like categories. In this manner, these codes were noted, and each relevant statement was organized under its appropriate code, which is referred to as open coding. Using the codes, the qualitative data was reread and searched for statements that might fit into any of the categories and further codes were developed, that is referred to axial coding (Gratton & Jones, 2004). Some codes were related together analytically under a more general one and they were organized sequentially and identified according to some causal relationships.

Then, in order to fulfill selective coding, raw data was read for cases, that illustrate the analysis, or explain the concepts, and it was went over whether contradictory or confirmatory. Later, the description of categories/themes was formed to build additional layers of complex analysis. In order to advance representation of themes, a narrative passage was used to convey the findings of the analysis by using figures and tables as adjuncts to the discussions, as well. After that, an interpretation of the data was made through the researcher's personal interpretation and a comparison of the findings with information from the literature.

3.9. Reliability and Validity

The quality of a research is evaluated by the concepts of reliability and validity, which are mainly employed to consider a research as how truthful in reality (Gratton & Jones, 2004).

3.9.1. Reliability

In qualitative studies, the equivalent of validity and reliability is the notion of trustworthiness that is composed of credibility, transferability and dependability (Pitney & Parker, 2009), or trustworthiness, authenticity, and credibility as received emphasis by Creswell & Miller (2000, cited in Creswell, 2009). According to Creswell (1998), qualitative researchers should consider the context of their research, the purpose of the study, the study's limitations, and issues of practicality when choosing strategies in order to ensure trustworthiness (cited in Pitney & Parker, 2009). The principles of trustworthiness enable qualitative researchers to make a rational claim to methodological accuracy (Erlanson, et al., 1993, cited by Pitney & Parker, 2009).

3.9.2. Validity

Validity is considered as one of the strengths of qualitative research to adjudge if the findings are correct from the point of view of the researcher, the participant, or the readers (Creswell & Miller, 2000 cited in Creswell, 2009). According to Gratton & Jones (2004) validity is more difficult to provide, assuming that transcriptions are considered as a tool for interpreting the interview, rather than an analysis in them. Therefore, the methods of obtaining the transcripts need to be stated clearly so that the validity of the transcripts can be evaluated.

The concept of validity includes the terms of internal and external validity. Internal validity, or if an instrument makes the intended provision, is a crucial measure for psychological and physiological variables (Pitney & Parker, 2009). The principal of internal validity is truth and accuracy (Silverman, 2000, cited in Pitney & Parker, 2009). From the point of a qualitative aspect, this concept deals if the research findings catch up what actually happened and what participants truly intended to say and believed regarding a circumstance. The term credibility is used in like manner of internal validity (Pitney & Parker, 2009). Besides, external validity handles if the results of a study could be easily generalized. This means that, external validity pertains to how the findings of one study can be applied to other participants or occasions. Since qualitative researchers are more interested in

understanding a specific phenomenon or situation, they do not usually employ this concept. Although it is not common to apply the findings of qualitative research studies to the general population, the findings are possibly implemented to resembling or related groups. The extent to which qualitative findings are applicable to other circumstances is named as transferability (Pitney & Parker, 2009).

Several reliability and validity procedures were fulfilled in this study to enhance the quality, credibility, and the assessment of precision of findings besides assuring readers for that integrity. In qualitative interview method, according to Gratton & Jones (2004), reliability could be increased by means of a standardised interview schedule. It was achieved through maintaining a consistent interviewing environment, recording the interview with the interviewees' permission, and then transcribing it as soon as possible by the researcher.

After fulfilling them respectively, peer debriefings were performed. After collecting some initial data, a fellow researcher was asked to code the same data set, i.e. different researchers developed crosscheck codes by comparing results that were independently derived, and the findings were compared to be able to maximize the validity and reliability of data. In other saying, the peer debriefing was accomplished having an experienced qualitative researcher, a colleague, examined the transcripts and coding sheets which explain the emerging theme(s) as well as categories and concepts for credibility. It allowed to identify possible problems in coding, and ensured for a clear and valid set of codes. During analyzing data through Nvivo software program by a field specialist, two assistant professors gave feedback to the study for confirmation of the themes and encodings that were presented visually through various figures and tables in the findings part. Parallel to this, one peer and two field specialists analyzed the data, as well. These analysis results were compared; the encodings were made and coded in the form of agreement and difference of opinion by the researcher. In addition, validity of the conclusions was examined through discussion with field specialists. Participants' direct quotations were included in the parts of findings and discussion, as it is supported that those empower study in terms of bringing the findings to the life, and making it more readable (Gratton & Jones, 2004). Rich

and thick description was used to transfer the findings to make results more realistic and richer. The bias was clarified to create an open and honest narrative that could sound well the readers. Negative or diverse information was presented that was opposite to the themes by discussing different information to improve credibility of explanations.

Spending time with the participants during Pilates sessions provided in depth understanding and observation opportunity for the researcher to experience alterations in their physical and psychological features, and their actual feelings for more accurate and valid findings. Peer debriefing was also used to enhance the accuracy of the explanations. An external auditor who was not familiar with the research reviewed the entire project through examining accuracy of transcription, the relationship between the research questions and the data, the level of data analysis from the raw data through interpretation.

3.10. Role of the Researcher

In qualitative method, there is a crucial role of the researcher who is the primary instrument for data collection and analysis, is anticipated to give an enormous sensitivity to the nature and perspectives of participants. Because the researcher's perspective might formalize the analysis and interpretation of the qualitative data (Pitney & Parker, 2009). In order not to affect the quality of the present study, the researcher behaved unprejudiced. Throughout the study, she carried out to treat without including her feelings and thoughts, maintained justice and equality, kept objectivity towards the problem of the research. Keeping the identity of the participants' confidential has a primary importance in qualitative research (Pitney & Parker, 2009). Therefore, audiotape recordings of interviews were transcribed and labelled with capital P and numbers (like P1, P2, ..., P32) that were used at findings part of the study. Audiotapes and the transcripts were kept saved on computer during completion of the study.

3.10.1. Researcher's First Experiences Regarding Studied Subject

Qualitative researchers are themselves an integral part of the process so it is needed to notice the role of the researcher in terms of their past experiences, personal connections to the site, steps to gain entry, and sensitive ethical issues (Creswell, 2009). Horsburgh (2003) explained a phenomenon called as reflexivity that the researchers have better to mention their personal connection to the context (cited in Pitney & Parker, 2009).

In the present study, the researcher started to work as a fitness instructor at a sport complex, named as Bilkent Sports International, in 1996, in Ankara, Turkey. She was also an instructor of step, aerobics, and stretching classes as the group physical activities of those years of 2000s. In 1998, one of the clients from the above-mentioned sport complex, asked for personal training at home for one of her friends who had just given a birth. That German woman who wished to improve her strength and flexibility, used to perform PM in Germany. She gave away a book to the researcher regarding PM that was not known and popular enough in Turkey. Starting to become acquainted with PM through that book, the researcher ordered a number of books and DVDs (digital video discs) from abroad via the internet shopping, and analysed the movements. Between the years of 1999-2000, PM classes started to have part in programs of sport centers in Turkey. Since this date, the researcher has begun to participate in many PM workshops in cities of Istanbul, Izmir, and Ankara. She took part in course of the first-degree coaching certificate program for PM trainers organized by Turkish Gymnastics Federation in Ankara. In addition, the researcher has conducted to benefit from literature of exercise physiology and human anatomy.

CHAPTER 4

FINDINGS

Findings part includes introducing demographic information of the participants. It follows presentation of each interview question through quotations, figures, tables, and interpretations.

4.1. Demographic Information of the Participants

Demographic information reflects job, age, marital status, education level, period of time to perform PM, frequency of performing PM, duration of the sessions, the way to perform PM, and other sports that were performed in the past or are actively being conducted. With respect to physical activities reports, all participants have been performing physical exercises, i.e. at least PM, regularly at present at the time of their interviews. However, 12.5% of them were inactive in the past. The mean age of the sample was 53.125 years old and the median age was 55 years old. This approximate same value for mean and median revealed a very homogenous sample in regards to age.

As seen in Table 2, 32 women subjects took part in the study were between the ages of 27 to 74. There were various professions that 22 of 32 women participants work actively, 6 of them were retired, and 4 of them were housewives. The marital status classification of the participants identifies four categories: 21 of the participants were married, 4 of them were single, 4 of them were widowed, and 3 of them were divorced.

Educational status of the participants included four groups that 2 of them graduated from high school (6.25%), 12 of them were bachelor's degree (37.5%), 10 of them were master's degree (31.25%), and 8 of them were PhD (25%). It is thought that participants' high educational level, increase in level of knowledge and awareness affect

their interest toward physical exercising and sports. Also, it is observed that participants pay more attention to their bodies and realize the importance of physical exercising in protection of their health.

Period of time that the participants practice PM regularly was between 8 months to 17 years. When grouping them, 4 of the participants had been practising PM for less than a year, 18 of them between 1 to 3.5 years, 5 of them between 5 to 9 years, and 5 of them between 12 to 17 years.

Frequency of participation in PM sessions during a week showed differences among the participants. 24 of them twice, 2 of them once, 2 of them once or twice, 2 of them twice or three times, 1 of them four or five times, and 1 of them eight times in a week performed PM.

In terms of type of the lessons, 22 of the participants had group lessons, 4 of them had private lessons, 4 of them had both private and group lessons, and 2 of them had either group or private lessons besides performing by themselves.

During a Pilates session, participants practiced the exercises in varied durations as 1 of the participants practiced approximately for 35 to 60 minutes, 1 of them for 40 to 60 minutes, 2 of them for 50 to 55 minutes, 2 of them for 50 to 60 minutes, 26 of them for 60 minutes. While performing PM alone, those participants practiced for 35 and 40 minutes of duration.

Information regarding other physical exercise types, their frequencies, and durations that used to be performed in the past or are performed presently are also introduced in Table 2. All of the participants were active at the time of the interviews, i.e. they had been participating regularly in PM and/or other physical activities for at least 8 months.

Table 2
Demographic Information

Participant	Job	Age	Marital Status	Education	Period of Time to Perform Pilates	Frequency of Pilates	Duration of the Sessions	The way to Perform Pilates	Other Sports
P1	Translator	39	Divorced	Master's	2 years	Twice	60 mins	Group	Walking 3-4 days for 50 mins Pilates by herself for 40-45 mins for 2-3 months Crunch group lesson twice for 2 months
P2	Architect	27	Single	Master's	8 months	Twice	60 mins	Group	Walking twice a week 45-50 mins Skiing for 1 month a year in the past Gymnastics Fitness equipment twice a week for 45 mins for 2 years
P3	Retired Lecturer	72	Married	Bachelor's	2 years	Twice	60 mins	Group	
P4	Director	40	Married	Bachelor's	3 years	Twice	60 mins	Group & Private	
P5	Neurology Specialist	44	Married	PhD	1.5 years	Once or twice	60 mins	Group	Pilates group exercise 45 mins between 2010-2014 Cardio (walking & aerobics) 40 mins between 2010-2014
P6	Neurology Specialist	45	Married	PhD	9 months	Once or twice	60 mins	Group	-
P7	Trade Specialist	32	Single	Master's	1 year	Twice	50-55 mins	Group	Yoga twice a week for 90 mins between 2011-2015
P8	Dentist	43	Married	PhD	5 years	Twice	60 mins	Group	Fitness equipment once-twice a week for 60 mins for a year
P9	Retired English Lecturer	70	Widow	Bachelor's	2 years	Twice	60 mins	Group	Yoga at intervals once-twice a week for 90 mins for 1-3 months
P10	Porcelain Artist	69	Married	High-school	1 year	Twice	60 mins	Private	Treadmill twice a week for 40 mins ages of 53-68 Basketball twice or three times a week for 60 mins ages of 14-17 Tennis twice a week for 60 mins between 1998-2001 Walking everyday for 45 mins between 1998-2005 Fitness equipment everyday for 45-50 mins between 1998-2005 Pilates group lesson three times a week with physiotherapist and later by themselves between 2008-2010 Pilates group lesson twice a week for 60 mins with an instructor between 2011-2014
P11	Neurosurgeon	52	Single	PhD	8 years	Twice	60 mins	Private	Pilates private lesson twice a week for 60 mins between 2014-2016 Riding a motorcycle since 2007 and a racer since 2012

Table 2 (continued)

Participant	Job	Age	Marital Status	Education	Period of Time to Perform Pilates	Frequency of Performing Pilates	Duration of the Sessions	The way to Perform Pilates	Other Sports
P12	Lecturer	41	Married	PhD	3 years	Twice	60 mins	Group	Tennis once a week for 60 mins between ages of 10-16 and 19-22 Horse riding and skiing rarely
P13	Business Administrator	41	Married	Bachelor's	3 years	Twice	60 mins	Group	Tennis twice a week for 1.5 years Walking everyday for 60 mins during the summers
P14	Architect	46	Divorced	Master's	8 months	Twice	60 mins	Group	Volleyball once a week for 60 mins between ages of 26-46 Social dances (Salsa, Kizomba, Bachata) for 4 months 2-3 hours
P15	Officer at the Embassy	61	Single	Bachelor's	9 years	Eight times	40-60 mins	Group & Private & by herself	Yoga 4 times in a week for 60 mins Walking twice in a week for 60 mins Bicycle twice in a week for 45-60 mins, Aerobics twice in a month for 45-60 mins Pilates by herself 2-3 times for 35 mins
P16	Director of HR	62	Married	Master's	15 years	Four-five times	35-60 mins	Private & by herself	
P17	Retired Lawyer	67	Married	Bachelor's	2 years	Twice	60 mins	Group	Yoga twice a week for 60 mins between 2006-2012 Aerobics twice a week for 60 mins for 2 years when she was young
P18	Banker	56	Married	Bachelor's	2 years	Twice	60 mins	Group	Walking twice-three times a week for an hour for a year in the past
P19	Italian Lecturer	56	Married	PhD	15 years	Twice-three times	60 mins	Group & Private	1998-2011 Yoga once a week for 60 mins Walking twice a week for 50 mins
P20	Housewife	74	Married	Bachelor's	8 months	Once	60 mins	Private	Walking three-five times a week for 25 mins Pilates with machines twice a week for 60 mins for a month in 2015
P21	Italian Lecturer	54	Married	Bachelor's	13 years	Twice-three times	60 mins	Group & Private	Walking Pilates with machines once-twice a week for 60 mins for last 3 months
P22	Pharmacist	56	Widow	Bachelor's	3,5 years	Twice times	60 mins	Group	-
P23	Retired Bank Manager	64	Widow	Master's	2 years	2 times	60 mins	Group	Walking 5 days for 60 mins in the past and now for 45 mins everyday between May-September Swimming three times 15-20 mins for 3 years in the past and now 20-25 mins everyday between May-September Pilates with machines twice a week for 60 mins in 2002

Table 2 (continued)

Participant	Job	Age	Marital Status	Education	Period of Time to Perform Pilates	Frequency of Performing Pilates	Duration of the Sessions	The way to Perform Pilates	Other Sports
P24	Dentist	44	Married	PhD	3 years	Twice times	60 mins	Group	-
P25	Doctor of Thoracic Diseases	49	Married	PhD	8 years	Twice times	60 mins	Group	Walking 5 times a week for 45-60 mins Basketball three times a week for 60 mins during high school for 3-4 years Swimming during high school for 3-4 years three-five times a week for 60 mins Pilates group 3 times a week for 6 months with a physiotherapist between 2008-2010, later twice a week for 45 mins by themselves
P26	Housewife	68	Married	High school	1 year	Once	60 mins	Group	-
P27	Director in Energy Sector	62	Married	Bachelor's	2 years	Twice	60 mins	Private	Passive gymnastics twice a week for 30 mins for two years between ages of 35-40 Walking on treadmill three times a week for 40-45 mins between ages of 50-55
P28	Secretary	44	Married	Bachelor's	12 years	Twice	50-60 mins	Group	Volleyball three-four times a week for 60 mins between ages of 11-14 High altitude climbing twice a week around 4000 m. between ages of 30-32 Trekking twice a week around 15-20 km between ages of 30-32 Martial arts (Wing Tsun) twice a week for 60 mins between ages of 30-32 Walking everyday for 60 mins between ages of 30-35 Yoga once-twice a week for 50-60 mins for a year at the age of 41
P29	Foreign Trade Specialist	56	Married	Bachelor's	17 years	Twice	50-60 mins	Group	Basketball three-five times a week for 60-120 mins between ages of 10-17 Track and field, tennis, and swimming rarely between ages of 10-17 Swimming and aqua exercises 3-4 times a week for 30-60 mins presently Walking twice a week for 45-60 mins presently
P30	Retired English Lecturer	69	Widow	Master's	1 year	Twice	60 mins	Group	Aerobics twice a week for 50 mins between 1985-1990 Tennis twice a week for 60 mins for 15 years Walking 5 times a week for 90 mins in the past and 45 mins now Swimming everyday for 120 mins 3 months during the summers
P31	Foreign Trade Specialist	41	Single	Master's	1 year	Twice	50-55 mins	Group	Ice skating twice a week between ages of 4-5 Walking 3km for 30 mins during last two years and 5-6 km for 60 mins during the summers
P32	Retired Dentist	56	Married	Master's	6.5 years	Twice	60 mins	Group & Private	Aerobics and step on and off once a week for 45 mins between 1990-2010 Pilates group once-twice a week for 50 mins between 2010-2015 Pilates private once-twice a week for 60 mins between 2014-2016

4.2. Interview Questions

The interview questions were prepared with an aim to shed light on the reasons behind PM including physical and psychological properties, self-identity, work and daily life, and social relations.

4.2.1. Could You Tell Me about Your Experience with Pilates method (PM)?

4.2.1.1. How and Why Did You Decide to Start Practicing PM?

First of all, the participants were asked about their experience on PM for reasons to start practising it. Their opinions were presented in Figure 1.

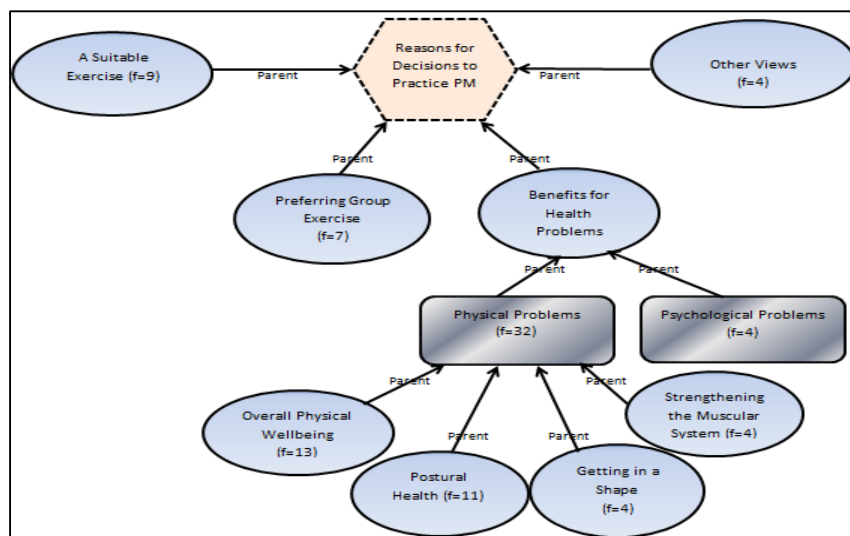


Figure 1 Reasons for Deciding to Start Practicing PM

As Figure 1 illustrates, the motives of the participants to start practicing PM were grouped under various headings. The main reason for conducting PM exercises was physical. Physical wellbeing, postural health, feeling physically fit, and strengthening the muscular system came to the forefront among the motivations. Although some participants refer to psychological benefits of PM for starting it, they were not as strong as physical reasons. Additionally, preferring to practice in a group setting and acknowledging PM as a suitable branch for each person were other reasons of the participants. Frequency distribution of the views expressed is showed in Table 3.

Table 3
Reasons for Deciding to Start Practicing PM

Themes	Sub-Themes	Views	f	%
Belief in Benefits for Physical Health Problems	Overall Physical Wellbeing: P2, P3, P5, P6, P7, P8, P10, P13, P14, P15, P20, P28, P30	... I knew that it was good for breathing and posture disorders... (P2). To work in harmony with my breath, to be aware of my body better, to improve control ... (P7). I made my decision for my health after all ... (P15). ... I wanted all parts of my body to workout, my arms, legs ... (P28).	13	40.6
	Postural Health: P1, P2, P4, P12, P15, P22, P26, P27, P28, P29, P30	... I have humped back, to correct my posture ... (P1). ... due to my herniated spine ... (P4). My spine is not straight ... there is compression between some discs... in my back (P27). I used to suffer from back pain. I heard about people whose pain disappeared after practicing the Pilates so I decided to start as well (P29).	11	34.4
	Getting in a Shape: P12, P14, P23, P24	... to get in a shape ... (P12). ... since I did not want to be without exercise ... (P23). ... I wanted to put my body into a better shape... (P24).	4	12.5
	Strengthening the Muscular System: P1, P7, P14, P31	For its benefits form my body, my muscles... (P1). ...I believe I could not strenghten some of my body parts with yoga ... (P7). ... I wanted to something else other than voleyball and dance ... to streghten my body and muscles (P14). I wanted to build muscles ... to be stronger (P31).	4	12.5
Benefits for Pshychological Health Problems: P14, P15, P16, P22	The look...and floppiness of my body...started disturbing me aesthetically...due to my age, so in order to feel better psychologically... (P14). ... I was in a state of heavy depression...that is why I started... (P15). ... my friends advised that it would be good for my psychological condition (P22).	4	12.5	
A Suitable Exercise: P5, P7, P9, P11 P21, P23, P25, P30, P32	... I felt that the Pilates was the most appropriate exercise for me, because it was not very tiring (P5). I found it was the most appropriate one for me as I have not done any other sports (P9). ... I thought it was the best fit for me (P11).	9	28.1	
Group Exercise: P2, P7, P8, P14, P19, P30, P31	As we make joint decisions at work...I would possibly not go to Pilates alone... (P7). I started together with my colleagues that I work with (P8). I thought that it would also be a good for group exercise... (P19). As my closest friends were also doing it... (P30). ... when such a group is created in the work place, I decided to join (P31).	7	21.9	
Other Views: P2, P9, P14, P32	... I tried to make it at home alone but I thought I was not successful (P2). Last year, I participated in a crowded group exercise for 3-4 sessions. I could not get much from it (P9). ... as the work is close to home... to do at home... I have even invited my colleagues; it would be more economical (P14). Owing to the Pilates course is close to my home...I can go in my exercise outfit ... (P32).	4	12.5	
Total			56	

As Table 3 indicates, the participants decided to perform PM due to their belief that it would be good in particular for their health problems physically and psychologically ($f=36$) came to the front among motivations. Those explanations regarding physical health ($f=32$) were clarified as overall physical wellbeing ($f=13$), postural health ($f=11$), getting in a shape ($f=4$), and strengthening the muscular system ($f=4$). In addition to these, some participants explained their reasons to perform PM regarding the belief to be good in their psychological health problems ($f=4$) that were not as strong as physical reasons. Furthermore, recognition of PM as a convenient physical exercising branch suitable for each individual was also an important factor in making a decision to practice it ($f=9$). Finally, social aspects of PM were also revealed for choosing to practice this method. Some participants revealed that they decided to practice the PM as they preferred group exercising ($f=7$). In addition, four different views expressed as not having satisfactory results from exercising by themselves, close proximity of the Pilates courses to their houses, being economical, and not receiving any benefit from crowded group exercises.

4.2.1.2. What Were the Effective Factors to Participate in PM?

The participants revealed that there were several factors, which encouraged them to start practicing PM. In this context, their responses were grouped under six headings as introduced in Figure 2.

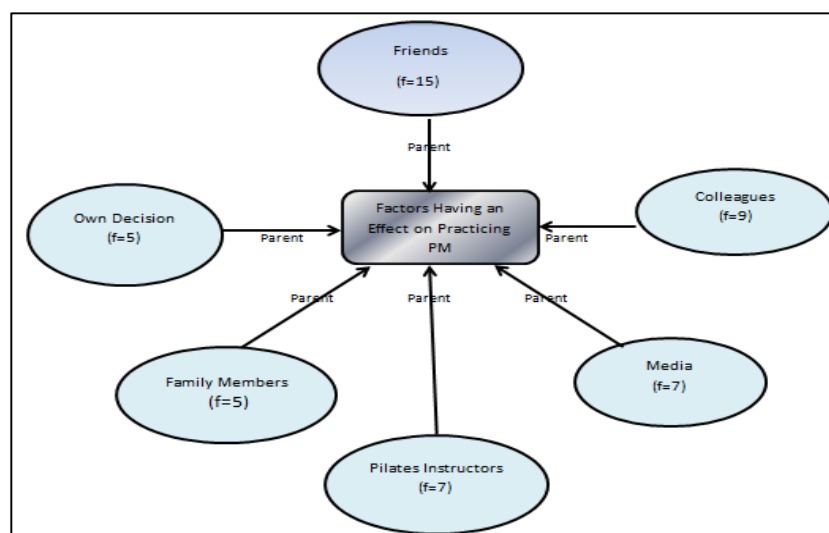


Figure 2 Factors Having an Effect on Starting to Practice PM

Figure 2 illustrates that the participants responded that their friends ($f=15$), colleagues ($f=9$), information through media ($f=7$), the Pilates instructors' teaching method and behavioral patterns ($f=7$), family members' advices ($f=5$), and their own decisions ($f=5$) encouraged them to start practicing PM.

4.2.2. Did You Have any Physical and/or Psychological Problems that You Observed Before Starting to Practice PM?

The motivations of individuals to take part in physical exercises and sports are various. Mostly, those reasons stem from the thought of ameliorating some physical and psychological health problems through exercising physically. The participants were asked whether they used to have or have been experiencing some health issues before starting to practice PM and their views in this respect were given Figure 3.

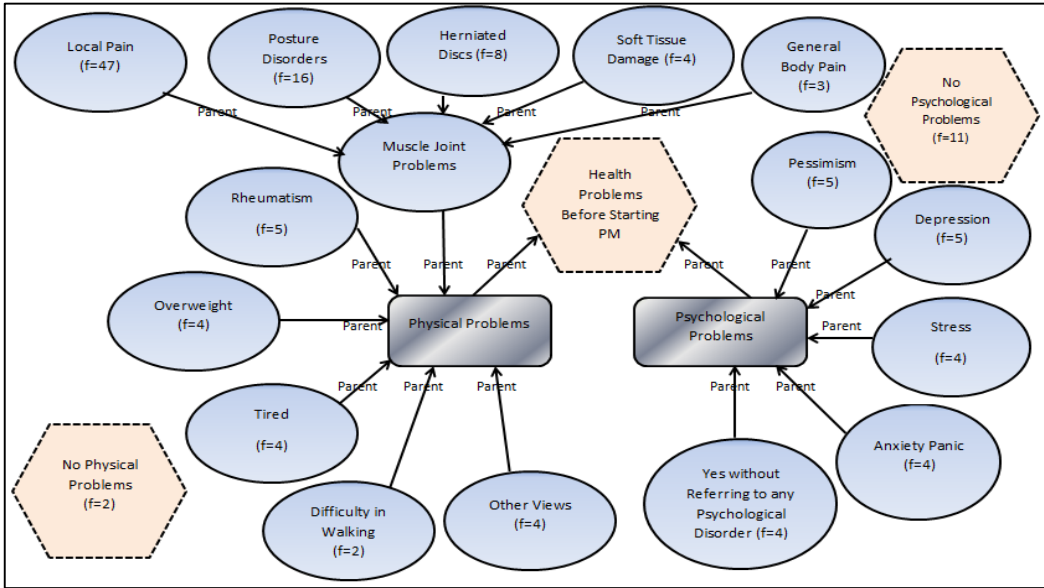


Figure 3 Health Problems Before Starting PM

Figure 3 presents that, before starting to practice PM, most of the participants used to suffer from various physical and psychological health problems. The physical health problems were branched under muscle and joints problems, rheumatism, overweight, tiredness, difficulty in walking, and other views. in this regard were Urinary incontinence, migraine, cramps, sleep disorder and liver problems. Besides, the psychological health problems were grouped under the themes of pessimism,

depression, stress, and anxiety-panic disorder. On the other hand, there were participants who did not point out any physical or psychological disorders. The frequency distributions of the physical and psychological health problems expressed by the participants were given in the Table 4.

Table 4
Health Problems Before Starting PM

Themes	Sub-Themes	Views	f	%
Physical Health Problems	Muscle-Joint Problems	Local Pain: Lower Back: P2, P12, P15, P18, P22, P24, P25, P26, P27, P28, P29, P30; Upper Back: P2, P3, P12, P13, P17, P18, P19, P22, P29; Knee: P11, P14, P17, P23, P25, P27, P30, P31; Shoulder: P5, P7, P11, P13, P16, P25, P27; Neck: P10, P22, P24, P27; Hip: P25, P30; Arm: P3, P14; Elbow: P14; Wrist: P3; Leg: P1 <i>I sometimes had pain in my legs (P1). I realise that I have pain in my arms (P3). ... torn in my shoulder, ... golfer's elbow, discomfort behind my knee (P14). In terms of my profession (dentist), I work in the same position, constantly lean forward, I felt I already had my neck muscles shorten too much as an occupational disease. Although there was not a diagnosed hernia in the neck, I used to feel my muscles strained (P24). ... there was a pain in my neck, I couldn't turn it (P27). My shoulder capsules were worn... I always had pain in my shoulders (P27).</i>	47	
		Posture Disorders: P1, P2, P7, P10, P17, P18, P21, P22, P23, P25, P26, P27, P28, P29, P30, P31 <i>I have posture problems, I always slouch along (P1). I could even feel my posture disorder myself (P2). I had a bad posture... (P18). ... I had slight hunches on my neck and my back (P25). I had persistent pain in my lower back and walking problem that is parallel to ground (P26).</i>	16	50
		Herniated Discs: Neck: P13, P27, P28, P29; Lower Back: P4, P12, P29, P32 <i>... I had compression in some of my disc channels ... and a curvature in my lower back (P27). I had herniated discs in my lower back... and ruptures in my neck. Two herniated discs in my lower back, in L5, S1 ... and in L4... (P12). 1,5 years ago ... I started to perform the Pilates exercises with my instructor when I was diagnosed with 3 herniated discs and when I was unable to stand up from my bed (P32).</i>	8	25
	Soft Tissue Damage : P7, P11, P12, P14 <i>...I ruptured one of my muscles, my supraspinatus was ruptured (P7). ... I had an injury in my knee ... something traumatic had happened in my ankle...in my shoulder... as a result of the sports I was doing (Motorcycle racer) (P11). ... there were ruptures in my neck (P12). ... a rupture in my right shoulder, under my shoulder ... golfer's elbow, problems in the back of the knee (P14).</i>	4	12.5	

Tablo 4 (continued)

Themes	Sub-Themes	Views	f	%
	General Body Pain: P13, P19, P29	<i>Every morning, I used to wake up with a serious back pain, shoulder pain, body pain... (P13). Physically yes, I had a lot of pain, I was in extreme pain. Used to do sports in time, and then working in sitting position and staying still had increased my pain ... I was suffering from upper back and low back pain (P29).</i>	3	9.4
	Rheumatism: P5, P13, P17, P20	<i>I have fibromyalgia (P5). I have serious problems... like fibromyalgia (P13). I have rheumatism in joints... fibromyalgia (P17). I have rheumatism in my joints (P20).</i>	4	12.5
	Overweight: P5, P11, P14, P16	<i>... I have weight problems, just like most women ... (P5). My weight has not been stable (P11). ... My body has not been in a good shape (P16).</i>	4	12.5
	Tired: P6, P14, P20, P22	<i>... I was not feeling energetic, I have had trouble in some movements, they were pushing me, I was not feeling my balance right (P6). ... my muscles were very weak, I could not even get on the pavement (P20). ... I was feeling extremely weak, I could not lift anything heavy, I could not walk long distances, I could not exercise for long periods, I could not do anything for extended periods of time (P22).</i>	4	12.5
	Difficulty in Walking: P6, P27	<i>I had a problem in my left leg... about muscle movements... especially when I was pressing my foot on the ground. I could not feel it totally (P6). I had considerable problems with my walking (P27).</i>	2	6.25
	Other Views: P10, P13, P19, P20	<i>I had problems with urination. Although not frequently, I had urinary incontinence issues, due to my age (P10). Sometimes muscle stiffness, muscle problems or cramps... Insomnia, sleep disorders... I had other problems like not breathing comfortably (P19). ... I suffered from liver disorder (P20).</i>	4	12.5
	No Physical Problems: K8, K9	<i>None (P8). ... there was nothing that would disturb me persistently (P9).</i>	2	6.25
Psychological Health Problems	Pessimism: P6, P20, P29, P30, P31	<i>... I believe I am a little more aggressive and pessimistic (P6). I was very sad as I felt so weak myself, but of course my illness also made me sad (P20). ... due to my physical problems I used to feel bad, old (P29). ... sometimes you feel down, as we do not do a serious sport, there could be feeling of looseness, or dullness (P30). ... some situations such as boredom and irritation were happening within days (P31).</i>	5	15.6

Tablo 4 (continued)

Themes	Sub-Themes	Views	f	%
	Depression: P10, P15, P18, P23, P24	<i>I have always had psychological problems... I always go to psychiatrist, I have always used anti-depressant medication (P10). ... I had a condition of very heavy depression (P15). ... time to time, I have had psychological problems. There were times that I was depressed (P18). ... I had... depression (P23). ... there wasn't a diagnosed thing emotionally, but... there is a depressive feeling connected with doing the same job constantly (P24).</i>	5	15.6
	Stress: P2, P11, P21, P25	<i>... a couple of months ago I could not cope with stress in the first place, I have had other problems and experiences during that time (P2). ... I believe I am more stressed if I do not exercise (P11). In particular around the time I started Pilates, school, I was very bored with my son's courses, it was a very stressful time (P21). Maybe, it was a little more stressful period for me (P25).</i>	4	12.5
	Anxiety-Panic: P1, P17, P23	<i>I have already had anxiety and panic disorder (P1). ... time to time, there was state of anxiety, sure (P17). I had a lot of psychological problems. I lost my mother very suddenly, so I have had panic attack... (P23).</i>	3	9.4
	Yes without Referring to any Psychological Disorder: P5, P7, P14, P16, P22	<i>... I leave all my physical and emotional problems behind after every Pilates session (P5). I had them (P7). ... I am a kind of person being happy by moving, exercising. Everyone has their own method of relaxing... It actually coincided with the end of my marriage (P14). Before I started the Pilates, there was something like this. I had a feeling of laziness when I heard the word "sports"... I was escaping from it a bit (P16). ... there was because of curve in my spine, I was not able to wear everything I wanted, not things that fit in my back and body tightly, but I had to wear loose-fitting things (P22).</i>	5	15.6
	No Psychological Problems: P3, P4, P8, P9, P12, P13, P19, P26, P27, P28, P32	<i>No, I did not (P3). No, I did not have serious problems (P4). Not in the recent years. But in previous years, I had... I was slowly overcoming them. I also did yoga at that time... I am also interested in psychology... I had my self-healing sessions, self-commands (P9). I did not have anything that I could see, either before or after the Pilates, I did not feel it (P13).</i>	11	34.4
Total			131	

Table 4 demonstrates that 2 participants out of the 32 did not have any physical problems, while the remaining 30 participants said that they suffered from various physical health problems of muscle and joints problems ($f=78$). A large number of individuals ($f=47$) had complaints of some local musculoskeletal pain or discomfort. The lower back pain (lumbar spine) was the most commonly affected anatomical site, with 12 cases. The other most frequently cited sources of pain were the upper back with 9 occurrences, the knee joint with 8 occurrences, and the shoulder joint with 7 occurrences. Sequentially, the neck joint (cervical spine) pain was stated by 4 participants, the pain related with hip and arm joints was stated by 2 participants for each. Lastly, one participant for each stated the elbow, wrist, and leg pains. Besides local pains, posture disorders ($f=16$), herniated discs ($f=8$), soft tissue damage ($f=4$), and general body pain ($f=3$) were expressed as the muscle and joint problems. Furthermore, they expressed problems including on various rheumatism conditions ($f=4$), overweight ($f=4$), feeling tired ($f=4$), and difficulty in walking ($f=2$). In addition to these problems, there are participants who suffer from other physical problems ($f=4$) like urinary incontinence, migraine, cramps, sleep disorder and liver problems.

Regarding the psychological health problems in the present study, Table 2 points that 21 participants referred to the presence of their psychological problems, but only 5 participants could not identify them by their names. The participants expressed the most prevalent psychological problems they experienced were pessimism ($f=5$) and depression ($f=5$). Furthermore, there were participants who experience stress disorder ($f=4$), and anxiety-panic disorder ($f=3$). On the other hand, 11 participants stated that they did not have any psychological problems.

4.2.3. Have You Noticed any Positive or Negative Physical and/or Psychological Changes in Yourself Since You Started PM?

The participants in the present study were asked whether they experienced any changes on their physical and psychological properties as a consequence of practicing PM regularly. They stated that they did not experience any

negative physical and psychological changes after starting to practice PM. On the contrary, they expressed that they observed positive changes both physically and psychologically that were introduced in Figure 4.

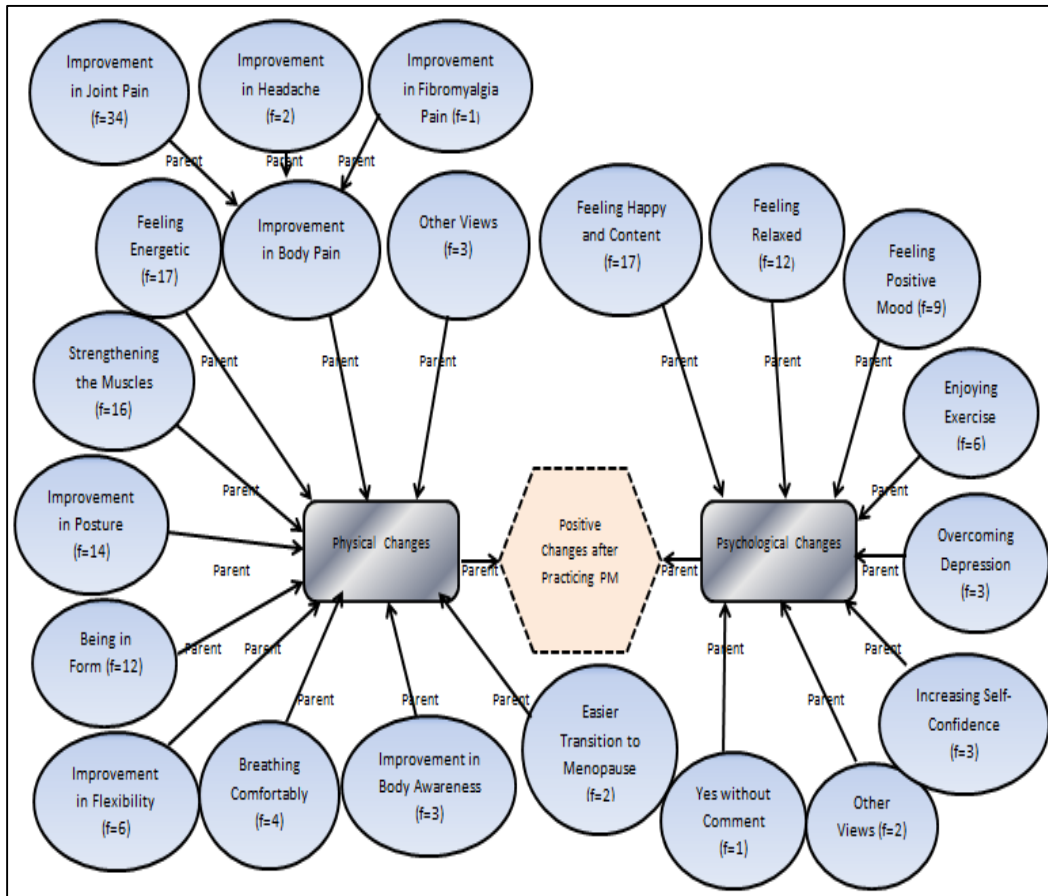


Figure 4 Physical and Psychological Changes After Practicing PM

Figure 4 indicates that the participants observed both positive physical and psychological changes after practicing PM. The varied physical improvements were on on recovery in body pain, feeling energetic, improvements in physical parameters, posture, breathing, body awareness, easier transition to menopause, and other views. In addition, psychological improvements were being happy and content, relaxed, having a positive mood, enjoying the exercising, feeling more self-confidence, overcoming the depression, and other views. The frequency distribution regarding positive physical and psychological changes after practicing PM are presented in Table 5.

Table 5
Physical and Psychological Changes After Practicing PM

Themes	Sub-Themes	Views	f	%	
Positive Physical Changes	Improvement in Body Pain	Improvement in Joint Pain: Neck: P1, P10, P13, P24, P27, P28, P29; Upper Back: P2, P3, P5, P12, P13, P29; Lower Back: K4, K9, P12, P15, P24, P27, P28, P29, P32; Shoulder: P5, P7, P11, P13, P14; Knee: P11, P21, P31; Arm: P3; Elbow: P14; Wrist: P3; Ankle: P11	<i>... they really helped my pain. I had pretty much back back pain, it improved remarkably (P5). ... the pain I was feeling in my knee ... swelling in my joints ... got better. As my muscle strength increased with the Pilates... this problem in my knee got much better... I had problems in my ankle... I had physiotherapy. I recovered more quickly with the Pilates. I had a shoulder problem. I recovered quickly with the Pilates (P11). ... the pain in my lower back, neck and shoulder ... 6 months after I started to practice it, I began to see so much benefit, and all my complaints improved, even disappeared... I had difficulty in getting out of the bed in the morning, I was having trouble while bending... there was a problem in my walking, my knees and my neck... there has always been pain in my shoulders. As they disappeared, surely it had so much benefits... (P27).</i>	34	
		Improvement in Headache: P13, P29	<i>I felt that my migrane attacks were less frequent ... this regular exercise ... stopped the headache (P13). When I had a headache, I remember getting rid of headache by doing the Pilates (P29).</i>	2	6.25
		Improvement in Fibromyalgia Pain: P13	<i>...I think it is my herniated discs and fibromyalgia in my neck which trigger the migrane attacks... I stopped the pain occuring with regular exercises I made (P13).</i>	1	3.1
	Feeling Energetic: P1, P2, P4, P5, P7, P8, P12, P15, P16, P17, P18, P19, P23, P25, P27, P29, P30	<i>After doing the Pilates exercises, my energy continued all day for much longer, I became more active... I felt alive...it allowed me to become more energetic (P12). I feel myself more energetic (P27). ... It feels like I am more energetic and alive and have a better posture, it feels like I continue moving in that direction... (P30).</i>	17	53.1	
	Strengthening the Muscles: P1, P4, P6, P7, P8, P9, P11, P14, P15, P16, P19, P20, P21, P22, P25, P32	<i>When I do the Pilates, I feel that my whole body is working in a very balanced manner ... and getting stronger (P4). I can easily observe that some parts of my body getting stronger. For example, there is a noticable recovery and strenghtening in my upper leg (P7). ... I belive it helped the recovery of my hip to a great extent. In terms of both correcting my walking, and strenghtening my muscles... (P25).</i>	16	50	
	Improvement in Body Posture: P1, P2, P7, P10, P16, P18, P21, P22, P23, P25, P26, P29, P30, P32	<i>... I fell that I have a better posture (P16). ... I had a hunched posture, collapsed, now I have an upright and erect posture (P21). ... I belive it enabled me to have an upright posture... My posture has improved, now I think walk more upright... (P32).</i>	14	43.75	
	Being in Form: P1, P2, P6, P11, P13, P14, P15, P16, P19, P21, P25, P31	<i>... Although my weight and eating have not changed much, I feel my body is in better shape (P6). ... There has been a drastic change in the way my body looked (P11). Although I have put on weight, my body looks very different (P21).</i>	12	37.5	

Table 5 (continued)

Themes	Sub-Themes	Views	f	%
	Improvement in Flexibility: P8, P13, P17, P25, P31, P32	... I am definitely more flexible... (P8). I can do things, which I had difficulty in doing, much more easily. I feel that I am more flexible (P13). I felt that my flexibility has improved (P17). ... my flexibility improved (P25).	6	18.75
	Breathing Comfortably: P2, P17, P19, P32	I think it helped me to breath more comfortably or had an impact in inhaling and exhaling, as well (P2). ... I realised that involving breathing provided a relief (P17). ... I observed improvement in... breathing more comfortably (P19).	4	12.5
	Improvement in Body Awareness: P16, P25, P32	For example, I am paying attention when I am walking... in my short walks... I pay attention to contract my thigh muscles... to feel those muscles (P16). The awareness for my body has improved... (P25). I started paying attention while bending and standing straight up... which I was not doing right (P32).	3	9.4
	Easier Transition to Menopause: P11, P21, P25	I believe I got over my transition to menopause better... both psychologically and physically (P11). ... My doctor, my gynecologist, told me that, bone scan showed some reduction in bone density in my back. It came back (P21). I am getting into menopause... I think it is relaxing me and has benefits for me, it has benefits in coping with menopause (P25).	3	9.4
	Other Views: P10, P20, P32	I do not loss urine involuntarily regardless of how much I want to urinate (P10). ... I had some exercises to do, I had started not doing them. But after the Pilates, I started practicing them again (P20). ... I think the exercises I perform helps my bowel movements, which are caused by my health problems... I want to emphasize that this helps chronic constipation which most people suffer in this century (P32).	3	9.4
Positive Psychological changes	Feeling Happy and Content: P2, P3, P5, P8, P10, P11, P14, P16, P20, P23, P24, P25, P28, P29, P30, P31, P32	... I started this a few months after my divorce... I probably did not tell it to myself but it possibly helped me to feel good (P14). After I started the Pilates ... it feels like you get addicted to it (laughter), that is how I feel... I think it is because of the happiness hormone released... I have a feeling that when I do the Pilates, I will not only feel good when I do it but also after (P16). ... especially the days that I practice The Pilates, I feel so much happier, alive after it (P31).	17	53.1
	Feeling Relaxed: P1, P3, P4, P7, P8, P9, P11, P17, P21, P22, P29, P31	... there is a feeling of peace and relaxation given by doing uninterrupted exercise (P9). ... It allowed me to relax psychologically as well (P17).	12	37.5
	Feeling Positive Mood: P3, P6, P12, P15, P23, P24, P29, P30, P31	More positive thoughts... relaxation in the way I move, feeling of enjoyment... (P3). ... If you are feeling depressed, and if I exercise that day ... I feel much better for the rest of that day... it is like a psychological therapy (P24).	9	28.1

Table 5 (continued)

Themes	Sub-Themes	Views	f	%
	Enjoying Exercise: P1, P7, P25, P26, P30, P32	<i>Exercising in harmony with breathing, being more aware of your body, developing your control over it, being able to further advance them... I really enjoyed it (P7). ... I am looking forward the [exercise] days to come so that I can exercise. I am eager to exercise, that is very nice, it is very satisfying emotionally (P26).</i>	6	18.75
	Increasing Self-Confidence: P2, P16, P19	<i>... you feel happier and in better form, and these give you a different feeling, increasing your self-confidence, it makes you more secure (P16). For instance, being able to make some of the exercises gave me more self-confidence (P19).</i>	3	9.4
	Overcoming Depression: P8, P15, P23	<i>... it relieves our tension, decreases depression (P8). I have overcome depression without medication (P15). ... I had lots of psychological problems... panic attack, depression... walking, Pilates, yoga, they all helped me... (P23).</i>	3	9.4
	Other Views: P11, P27	<i>... while I was approaching the menopause, I particularly wanted to exercise... thanks to the Pilates... I believe I have comfortably overcome the transition to the menopause... psychologically... (P11). ... I feel fit... not only psychologically (P27).</i>	2	6.25
	Yes with No Comment: P18	<i>I absolutely agree (P18).</i>	1	3.1
Total			168	

It appears from Table 5 that the participants who experienced different physical problems declared a great number of positive impacts ($f=115$) in total as a result of PM. The participants mostly responded that they experienced improvement in body pain ($f=37$) that had subthemes of improvements in joint pain ($f=34$), headache ($f=2$), and fibromyalgia ($f=1$). They were followed by feeling energetic ($f=17$), strengthening the muscles ($f=16$), and improvement in body posture ($f=14$). They also stated that they looked more fit ($f=12$), flexibility improved ($f=6$), started to breathe comfortably ($f=4$), became more self aware of their bodies ($f=3$), and better overcame transition to menopause physically ($f=3$). Moreover, other opinions ($f=3$) regarding positive impacts of the exercising through PM were pointed out as controlling urinary incontinence, having motivation to move, and getting benefits for chronic constipation.

The positive psychological impacts expressed by the participants as a result of performing PM were in total ($f=53$). They declared most that after practicing PM regularly, they felt happy and content ($f=17$), followed by feeling relaxed ($f=12$), and

being in positive mood ($f=9$). Moreover, they thought that through PM they enjoyed the exercising ($f=6$), felt self-confidence ($f=3$), and overcame depression ($f=3$). They also stated other views ($f=2$) of overcoming the psychological effects of menopause comfortably, and feeling mentally fit. Furthermore, without making any comment, one participant expressed that she experienced positive psychological changes after continuing PM.

4.2.4. Do You Fulfill the Principles of PM?

Since implementation of the principles are crucial to get maximum benefits from PM exercises, the participants of the present study were asked whether they could achieve fulfilling them. The participants' views on implementing the principles of PM are summarised in Table 6.

Table 6
Implementing the Principles of PM

Themes	Sub-Themes	<i>f</i>	%
Breathing	<i>Sometimes: P1, P5, P10, P14, P20, P22, P28, P32</i>	8	25
	<i>Most of the times: P2, P3, P4, P6, P7, P8, P9, P11, P12, P13, P15, P16, P17, P18, P19, P21, P23, P24, P25, P26, P27, P29, P30, P31</i>	24	75
	<i>Sometimes: P30</i>	1	3.1
Control	<i>Most of the times: P1, P2, P3, P4, P5, P6, P7, P8, P9, P10, P11, P12, P13, P14, P15, P16, P17, P18, P19, P20, P21, P22, P23, P24, P25, P26, P27, P28, P29, P31, P32</i>	31	96.9
	<i>Sometimes: P28</i>	1	3.1
Concentration	<i>Most of the times: P1, P2, P3, P4, P5, P6, P7, P8, P9, P10, P11, P12, P13, P14, P15, P16, P17, P18, P19, P20, P21, P22, P23, P24, P25, P26, P27, P29, P30, P31, P32</i>	31	96.
	<i>Sometimes: P1, P32</i>	2	6.25
	<i>Most of the times: P2, P3, P4, P5, P6, P7, P8, P9, P10, P11, P12, P13, P14, P15, P16, P17, P18, P19, P20, P21, P22, P23, P24, P25, P26, P27, P28, P29, P30, P31</i>	30	93.75
Centering	<i>Sometimes: P26, P28</i>	2	6.25
	<i>Most of the times: P1, P2, P3, P4, P5, P6, P7, P8, P9, P10, P11, P12, P13, P14, P15, P16, P17, P18, P19, P20, P21, P22, P23, P24, P25, P26, P27, P29, P30, P31, P32</i>	30	93.75
Precision	<i>Sometimes: P17, P20, P23, P30, P31</i>	5	15.6
	<i>Most of the times: P1, P2, P3, P4, P5, P6, P7, P8, P9, P10, P11, P12, P13, P14, P15, P16, P18, P19, P21, P22, P24, P25, P26, P27, P28, P29, P32</i>	27	84.4
Flowing			
Total		192	

As shown in Table 6, the participants expressed that they implemented the principles of PM in general. However, some participants stated that they had difficulties in implementing some of the principles. Almost all participants revealed that they implement in particular the principles of “control” ($f=31$) and “concentration” ($f=31$). Furthermore, the principles of “centering” ($f=30$) and “precision” ($f=30$) are implemented by most of the participants. There are also participants who believe they sometimes do not implement the principles of “breathing” ($f=8$) and “flowing” ($f=5$).

4.2.5. How is Your Emotional Stance Before and After Practicing the PM Sessions?

The participants were asked regarding their emotional stance before and after the sessions of PM. The frequency distribution of the emotional stance of the participants before PM practice is given in the Table 7.

Table 7
Emotional Stance Before the PM Sessions

Themes	Views	f	%
Pleased, Happy, and Excited: P2, P3, P6, P9, P11, P12, P13, P16, P19, P22, P31, P32	<p>... the excitement of living something nice. Waking up early in the morning, the excitement of putting your clothes on and waiting for something (P9).</p> <p>... it is even joyful, while thinking about the time I allocated for myself, putting my outfit on, having the set up in place, waiting for the instructor. I wait in calm and joy (P32).</p> <p>I get blissful and happy (P12).</p> <p>... when I first started, oh, I will actually be doing some exercise, because this was not one of my routine habits (laughter). But now ... I feel discomfort if I do not exercise on that day ... I have this that day, I will not be able to practice, very bad, how can I make up for it, when. The body has an expectation... I feel joyful (P16).</p> <p>I get happy, I mean the days when there are Pilates sessions (P31).</p>	12	37.5
Mixed Emotions: P7, P14, P18, P21, P23, P26	<p>... neutral or in general ... I exercise so that I feel good ... other than that ... there are days when I feel good ... and bad... or normal (P7).</p> <p>It depends on the day... I sometimes feel calm ... and sometimes hectic (P21).</p> <p>... It changes a lot... I have mixed feelings. Sometimes, I feel, it is great, I have the Pilates course today, but sometimes, I feel like, how am I going to perform the Pilates with this body (P23).</p> <p>My emotions may change before I start... for instance, I ask myself if I should exercise as I feel very tired... (P26).</p>	6	18.8
Calm and Relaxed: P1, P8, P17, P24, P30	<p>I feel calm, ... I think about the exercises I will perform, the breathing during the exercises, and the feeling of relaxation after the exercise, so I start very relaxed (P17).</p> <p>I am already a relaxed person in general, I feel relaxed before the exercise (P24).</p> <p>I came feeling calm and loving... (P30).</p>	5	15.6

Table 7(continued)

Themes	Views	f	%
Hurried: P4, P5, P20, P28, P29	... our exercises are very early in the morning and they overlap with morning rush a bit (P4). Somehow hurried... I cannot start very calm but, it is a hurry created by the intense pace of work (P5). I think I feel in a hurry a bit before we start (P20).	5	15.6
Tired: P15, P25, P27	I feel tired even before the exercise due to the work (P15). Sometimes... I am willing to come but sometimes I feel tired (P25). We do the Pilates in general in the mornings... Therefore, it is the fatigue of the day, I wake up like this in the morning (P27).	3	12.5
Other View: P10	... my mood is down in general (laughter), but after an hour, I feel much better... even if I feel very depressed before we start...I feel like a newborn after we finish (P10).	1	3.1
Total		32	

It appears from Table 7 that the participants expressed various emotional feelings before they started to PM sessions. According to the opinions, the most prevalent emotional feeling was feeling pleased, happy and excited ($f=12$). This was followed by mixed ($f=6$) and calm and relaxed ($f=5$). Furthermore, there were participants who expressed hurried ($f=5$), and tired ($f=3$) while one participant expressed another view ($f=1$) of feeling depressed before the sessions.

In addition to introducing the feelings of the participants before the sessions, frequency distribution of the emotions of the participants after practicing PM sessions was given in Table 8.

Table 8
Emotional Stance After Practicing PM

Themes	Views	f	%
Happy and Content: P1, P2, P3, P5, P6, P7, P9, P10, P11, P12, P13, P14, P19, P20, P22, P23, P25, P24, P25, P26, P27, P28, P29, P30	I get happy... (P1). I am in a great mood of happiness (P6). I feel good ... content... (P25).	24	75
Peaceful and Relaxed: P2, P4, P6, P7, P8, P10, P13, P14, P15, P16, P17, P20, P21, P28, P29, P31, P32	... I feel a great relaxation. I spend that day very comfortably and this continues for another day or two (P6). ... you feel very relaxed ... and you erase all your problems in your mind immediately ... your mind relaxes totally (P15). It may be selfish but it is a thought that gives me a great satisfaction. This is how I start my day (P32).	17	53.12
Tranquil: P2, P5, P18, P21	I leave in a very quiet and tranquil spiritual state (P5). ... I feel myself more tranquil, full of energy (P18). I get more ... calmed down (P21).	4	12.5

Table 8 (continued)

Themes	Views	f	%
Positive: P6, P11	<i>I really feel that I have a more positive perspective on things after the Pilates (P6). I get very positive, in other words rested, it feels great. I feel myself more motivated (P11).</i>	2	6.25
Other View: P12	<i>... I feel rested and at the same time ... I can concentrate more. For example, since I am a teacher, I can concentrate on my job more (P12).</i>	1	3.12
Total		48	

As indicated in Table 8, the participants felt mostly happy and content at the end of PM sessions ($f=24$). In addition, they felt more peaceful and relaxed ($f=17$), more tranquil ($f=4$), and more positive ($f=2$). Furthermore, there was a participant who felt rested at the end of PM sessions.

4.2.6. Do You Think the Existing Problems In Your Mind during the PM Sessions?

In order to reveal the current state, the participants were asked whether they think their problems during the practice of PM. Their opinions in this respect are presented below:

I Do Not Think Them (68.75%): P1, P2, P5, P6, P8, P9, P10, P11, P12, P15, P18, P20, P21, P22, P23, P24, P25, P26, P27, P30, P31, P32.

Sometimes I Think Them (31.25%): P3, P4, P7, P13, P14, P16, P17, P19, P28, P29.

According to the responses, while 68.75% of the participants stated that they had not been thinking about their problems during the practice of PM, 31.25% stated that they sometimes had been thinking them.

4.2.7. Have You Noticed any Changes in Your Perception of Self-Awareness Regarding Your Body and Personality Traits as a result of PM?

The participants were asked if there were any changes in their perceptions of self awareness as a result of PM both felt and did not feel any changes in self awareness on physical and personality properties that are presented in Figure 5.

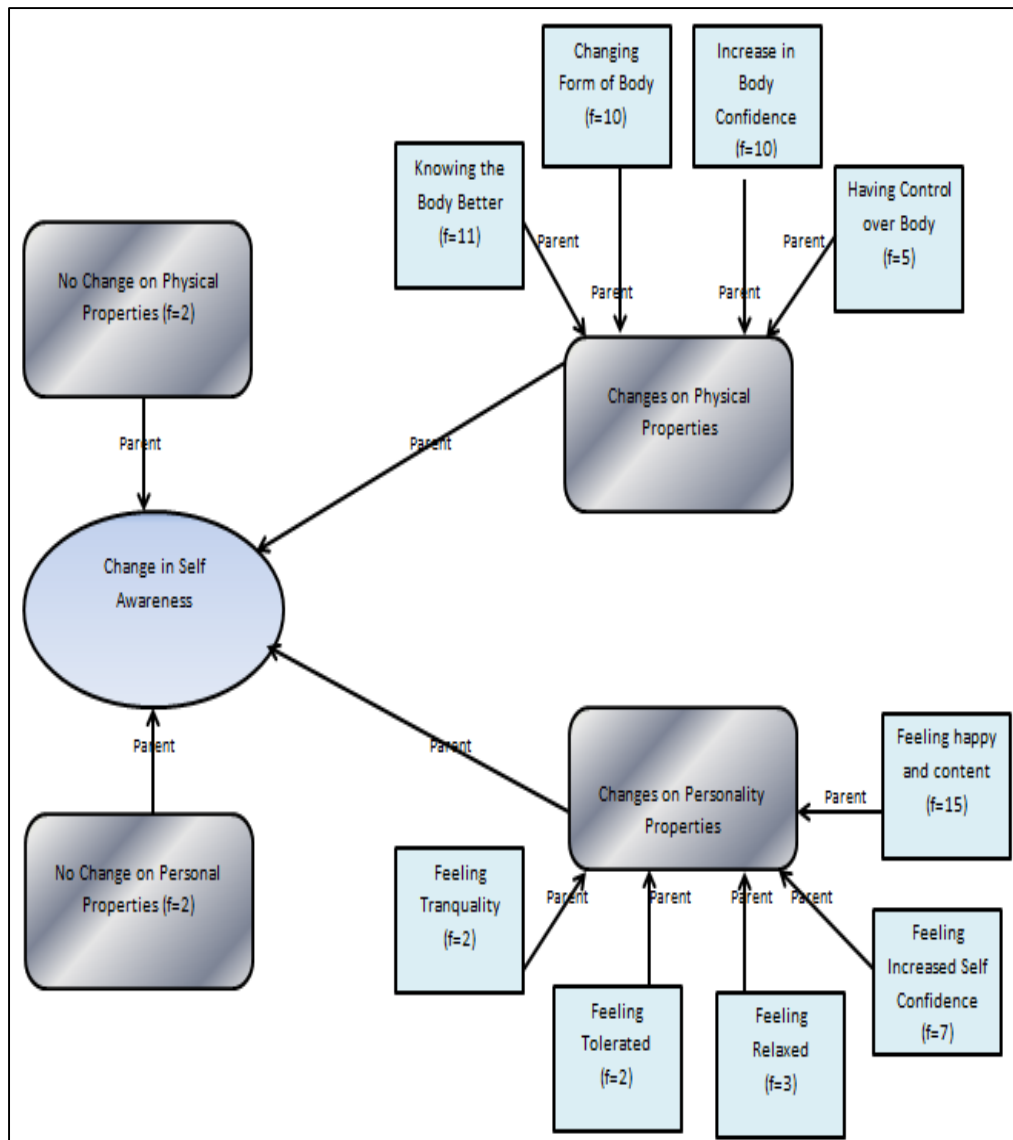


Figure 5 Changes in Self Awareness as a Result of PM

As illustrated in Figure 5, the views expressed by the participants on changes in self-awareness of their bodies after practicing PM were grouped under the headings of changes on physical properties and changes on personality properties. Improvement on physical properties were on knowing their body better, changing body form, increase in body confidence, and having control over musculoskeletal structure. Besides improvement on personality properties were on feeling happy and content, increase in self-confidence, relaxed, tolerated, and tranquil. Frequency distribution of these two themes and sub-themes are given in Table 9.

Table 9
Changes in Self-Awareness as a Result of PM

Themes	Sub-Themes	Views	f	%
Changes on Physical Properties	Knowing the Body Better: P4, P6, P9, P12, P14, P16, P23, P25, P30, P31, P32	<i>I pay attention to my body, I have not done it before, I mean whatever it was. But I feel that with the Pilates, how important every nerve, even the smallest muscle is (P6). ... I got to know my body. I mean where, which muscles of mine are more sensitive, they can hold me, which ones are stronger. I knew them (P12). As I learnt how to use my lower back, I believe we create a barrier that would stop protruding herniated discs... (P32).</i>	11	34.4
	Changing Form of the Body: P2, P5, P9, P11, P13, P18, P19, P20, P21, P29	<i>I definitely look fitter, more in proportion and fitter (P11). ... I look more vigorous, younger, I think a little bit (P18). ... My body looks younger compared to the people of my age (P21).</i>	10	31.25
	Increase in Body Confidence: P7, P8, P9, P10, P15, P18, P22, P24, P25, P26	<i>May be admiring yourself more... you are happier with yourself... I feel more self-reconciled (P8). ... My confidence in my body has increased. In other words, the way I walk ... the way I move... I am more self-aware of my body, my confidence in body has increase (P10). ... The self-confidence comes first and then grows, of course. My self-esteem changes... and the self-confidence increases day by day (P15). ... When I look at the mirror, I feel self-content... I had a serious deformation in my back but now I can hardly see it if I touch it with my hands. No one notices it from outside (P22). I am aware that it increases self-confidence and confidence in my body (P25).</i>	10	31.25
	Having Control over Body: P6, P7, P17, P24, P27	<i>I can focus more in the Pilates, which muscle group, how do I hold the movement (P7). I now try to remain upright not only when I stand up but also when I walk (P17). ... I try to correct my posture, in that respect, it contributed a lot. I was more inward positioned, but I know notice this even when I walk, and I try to walk straight up. I believe that this has had positive contributions to my image (P24).</i>	5	15.6
No Change on Physical Properties : P1, P3		<i>If one looks from outside, has there been any impact on my physical outlook? ... has it changed my self-awareness? I do not know, probably not (P1). I have not observed much change, I have not noticed it, I do not know (P3).</i>	2	6.25
Change on Psychological Properties	Feeling Happy and Content: P1, P4, P8, P11, P13, P14, P17, P19, P20, P22, P23, P27, P28, P29, P30	<i>I feel great ... both physically and mentally ... There has been a decline in the quality of my role at work, in the family and as a mother due to the pain and problems I was having. Thanks to these exercises... I believe the quality of my life at work and my daily life, normal life has improved (P13). I feel happier as I do something positive by spending time for myself (P19).</i>	15	46.9
	Feeling Relaxed: P2, P26, P31	<i>I get ... more relaxed ... my mind gets more relaxed ... I take precautions for physical things that I believe I will not be able to do in future (P2). When I do the Pilates ... I feel more relaxed, I say I can walk that day, ... I feel lighter (P26). ... I am basically the same but probably a bit more relaxed, my mind is more relaxed (P31).</i>	3	9.4

Table 9(continued)

Themes	Sub-Themes	Views	f	%
	Feeling Tolerated: P19, P21	<i>I feel fitter as a result of these exercises and I feel happier for doing something positive by having allocated time for myself. This in turn improves my performance at work, enhances my toleration in my social life (P19). I feel more optimistic (P21).</i>	2	6.25
	Feeling Tranquility: P5, P25	<i>It is for sure that it creates a tranquil personality (P5). ... I believe it gives me tranquility (P25).</i>	2	6.25
	No Changes on Personal Properties P3, P32	<i>I have not noticed much change, I did not realise it, I do not know (P3). To be honest, I am not aware if there was a meaningful change on this or not. I mean, I think there was nothing happened that I could say "I was very angry but I got calmer after this" (P32).</i>	2	6.25
Total			62	

According to the findings given in Table 9, as a result of PM, most of the participants reported increased awareness about their bodies under the theme of changes on physical properties ($f=36$). According to the sub-themes, they expressed they started to know their bodies better ($f=11$), recognized their body forms changed ($f=10$), confidence on their bodies increased ($f=10$), and had increased control over their bodies ($f=5$). On the other hand, two participants said that there was no change in self-awareness on their physical properties (P1, P3).

The participants who expressed changes in self-awareness on their personal qualifications as a result of PM stated that they felt happier and more content ($f=15$), more relaxed ($f=3$), more tolerant ($f=2$) and more tranquil ($f=2$). On the other part, while two participants did not express any changes in self-awareness as a result of PM (P3, P32), three participants did not mention any views (P6, P12, P16).

4.2.8. Have You Noticed any Changes in Your Perception of Self-Esteem as a Result of PM?

The participants, who were asked if there was any change in their perceptions of self-esteem as a result of practicing regular PM, expressed both change and no change in their perceptions of self-esteem. The frequency distributions of these findings are given in Table 10.

Table 10
Perception of Self-Esteem as a Result of PM

Themes	Views	f	%
Increase in Self-Esteem: P1, P4, P5, P6, P7, P9, P12, P13, P15, P19, P20, P22, P23, P24, P26, P30, P31, P32	<i>... regular exercise was something I always wanted to do... it was for the first with the Pilates that I could do it regularl... Therefore, this made me feel happy and absolutely increased my self esteem (P4). I think I made something for myself. The things I do for myself return to me as something positive of course... For myself, for my own good, and for my own benefit, and for my future... I consider the Pilates as an investment for my older days... (P5). Your stance changes, I mean in general. In other words, you love yourself more, becасue you do something for yourself (P12). Being aware of doing something for yourself and for your own body increases the self-esteem (P19).</i>	18	56.25
Increase in Self-Confidence: P2, P6, P8, P9, P10, P11, P13, P14, P15, P16, P17, P19, P22, P25, P27	<i>I spend time for myself... it increases one's self-confidence, it makes you feel this when someone looks at you from outside (P2). With the help of the Pilates, as my body gets into a better form, my self-confidence also increases. You put on clothes more confidently your clothing style ... and your weight are noticed somehow... this increases my self-confidence (P13). It definetely increases the self-confidence but I am proud of myself for continuing the Pilates practices with determination ... When you feel happier, and your body in better shape, this is a different feeling, this increases self-confidence, you feel more confident (P16).</i>	15	46.9
Feeling Happy and Good: P2, P4, P6, P7, P8, P9, P11, P14, P16, P21, P23, P28	<i>... I was not thinking too negatively about myself on these matters anyway ... I like watching myself on the mirror too, I had no problems with this, I found myself fine. However, I find myself healthier ... happier and better (P2). ... I feel caring about myself. In other words, I do something good for myself and ... I make a contribution to my body and my health. And this makes me happy (P6). ... I say I did something for my body ... for my health ... for my soul... and this is not futile, but pretty good, and healthy. Not like walking on the streets or shopping ... I did something for my health, and I say it was great (P21). When I do the Pilates, I feel myself more valuable ... I cope with the concern of getting older much better... You can cope with it more strongly by being in such a mood ... It is not possible not to get older as long as you live, but getting older better makes you feel a happier person ... Doing something good for yourself, for your body lifts your spirit (P23).</i>	12	37.5
No Change in Perception of Self-Esteem: P3, P10, P18	<i>... I have not noticed any change ... I probably have not done it frequent enough, it is may be because of this ... I have been practicing it for two years, not for many years (P3). No, I do not like myself at all (P10). ... I cannot say that I have observed much change as I already have had self-respect, self-esteem... (P18).</i>	3	9.4
Total		48	

As shown in Table 10, after practicing PM regularly, the participants reported increase in self-esteem ($f=18$), increase in self-respect ($f=15$) and they felt happier and more content ($f=12$). The findings revealed that three participants did not report any changes in their perceptions of self-esteem.

4.2.9. Have You Noticed any Changes in Your Energy and Vigour As a Result of Adding PM into Your Life?

The participants were asked to understand whether they experienced any changes in energy and vigor by practicing PM. The findings regarding effects of PM in this respect are given in Table 11.

Table 11
Changes in Energy and Vigour as a Result of PM

Themes	Views	f	%
Increases Energy and Vigour: P1, P2, P4, P5, P6, P7, P10, P12, P15, P16, P17, P18, P19, P21, P22, P23, P25, P26, P27, P28, P30, P31, P32	<i>There has definitely been a change in my energy levels. I have been more energetic than most people of my age (P21). We exercise and leave, we feel tremendously happy. The last part of our exercises is to relax, so we leave without feeling tired. In other words, this is different to many other sport branches. In other sports and exercises, you really get tired, you want to go home and lay down after. However, when you do this, after the exercises, your energy levels never go down, you do not feel the fatigue (P22). I am generally an energetic person ... I am not lazy to do things. Many people of my age would say I cannot do this or that, I know it. I try not to say that, but the Pilates has an impact on that as well, more agile ... stronger ... a bit like being more flexible, or it will get better in time... (P30).</i>	23	71.9
Gives Positive Motivation and Makes Content: P1, P8, P9, P11, P13, P20, P22, P29, P31	<i>... it gives me positive motivation in my life (P1). Since I started doing the Pilates, I know that I am very very well... I consider myself much better of physically and emotionally (P29). I started paying more attention to what I eat, my life style, with the Pilates exercises... being aware of what it takes to exercise. They all started coming together (P31).</i>	9	28.12
Other View: P14	<i>... My day is disrupted normally... I do it at noon. But I can do a lot more in a day with more planning ... It appears as if I am allocating an hour-an hour and a half a day but I plan my day accordingly... I go to work without lingering around on the Pilates days ... I finish up so much work so that I can allocate time at noon without my mind being occupied. Therefore, it is more planned and disciplined (P14).</i>	1	3.12
No Change: P3, P20, P24	<i>No, I have not noticed any change (P3). ... I need to change many more other things to feel any change in my energy levels (P20). ... If I could exercise more frequently, I would probably feel some change, although it may still not be very significant (P24).</i>	3	9.4
Total		36	

As demonstrated in Table 11, 29 of the participants expressed that there had been a positive transformation in their energy levels and vigour as a result of practicing PM. This workout provided them an increase in their energy and vigor ($f=23$) and gave them a positive motivation and made them content ($f=9$). In addition, one participant expressed a different opinion of being more planned and disciplined by

including PM in her schedule. On the other hand, three participants (P3, P20, P24) mentioned that they had not felt any changes in their energy levels and vigour as a consequence of practicing PM.

4.2.10. Are There any Differences in How you Cope with Stress a Result of Practicing PM?

The findings whether practicing PM regularly had any impact on the participants' ability to cope with stress are given in Table 12.

Table 12
Benefits of PM to Cope with Stress

Themes	Sub-Themes	Views	f	%
Good in Coping with Stress	Gaining a Tranquil and Healthy Perspective: P2, P6, P12, P14, P25	<i>You gain a different... a more relaxed... and a healthier... perspective... until a few months ago ... I could not cope with stress in the beginning, I had other problems or experiences at that time ... However, for the last two months, I started seeing the benefits of the Pilates, more than ever before ... I gain to a level of consciousness that if I do the Pilates, if I pay attention to my health (P2).</i>	22	53.2
		<i>I think I am calmer. There is less stress, it definitely relaxes a lot (P6).</i>		
		<i>For example, there are things that I am more enthusiastic about,... I need to finish up a project or something. If I do the Pilates the day before, the following day I can do things in a more tranquil manner... it takes away the anxiety, decreases excitement (P12).</i>		
		<i>I can do it twice a week at the moment. I am looking forward to it, and after the exercises, I feel very good and relaxed. When I first started, it was probably a stressful period. The Pilates helped me a lot in that respect (P25).</i>		
	Raising Consciousness: P2, P7, P16, P23, P27	<i>I believe it has some influence... as we do it at work... at lunch break ... after we get back to work, you take things easier ... not worry about them so much (P7).</i> <i>I believe I can discharge my mind. As you concentrate your mind on your body, I realise now upon your question that it is very good for stress (P16).</i> <i>As someone who has been exposed to very high stress and who has suffered a lot from it, this is one of the many things to be done to cope with stress. Because, you cannot cope with stress with one thing ... a positive perspective or doing this and that ... the Pilates helps a lot ... (P23).</i>		
	Strengthening the Mind and the Body: P29, P30, P32	<i>You get stronger in every way, your mind and also your body... (P29).</i> <i>I believe if done correctly, the Pilates strengthens your mind, your conscious, and supports it ... (P30).</i> <i>I feel more energetic and ... less tired ... If we think that there is domino effect, possibly it is having an impact on everybody else's psychology ... (P32).</i>		

Table 12 (continued)

Themes	Sub-Themes	Views	f	%
	Other Views: P4, P19	<i>It is good because of its meditation-like properties (P4). When you do the Pilates in the morning and start the day by eliminating negative energy, you realise that you get more tolerant and patient in due course (P19).</i>		
	Yes Without Comment: P5, P9, P13, P15, P17, P21, P22	<i>I can do once a week ... It can be much more beneficial if I can do it for longer ... mid-week but ... even an hour a day changes a lot (P5). You do not feel it till noon but in the afternoon ... it makes me feel good at least for a few hours (P13). ... Some days I really feel very stressed ... but after the Pilates ... I see that the stress grows away slowly from my body ... (P15).</i>	7	21.9
	Moderately Good for Coping with Stress P8, P18, P24	<i>It may have had some impact but ... I do not think that it had a major impact on coping with stress (P8). I can cope with the daily stress due to my personality, I am a kind of person who can do this. This continues as it is (P18). The days when I exercise ... I feel less stressed. However, I do not think it had such an impact (P24).</i>	3	9.8
	No Idea P1, P3, P11, P26, P28	<i>I do not know that well (P1). ... I cannot tell the difference, I have too much stress ... I am not a kind of a person who would divulge my stress ... I keep it inside. But I have not been exposed to a level of stress that would seriously strain me ... may be in the past ... but not at the moment (P26). It changes from time to time ... I cannot exactly say yes for sure ... (P28).</i>	5	15.6
	Not Useful P10, P20	<i>No, I cannot, because mine has been chronic ... psychiatric treatment, for 30 years. I could not overcome that ... it became chronic, it is not something simple (P10). Frankly it has not helped at all (P20).</i>	2	6.25
	Total		39	

As indicated in Table 12, majority of the participants ($f=22$) thought that practicing PM regularly helped to cope with stress. Some of them ($f=7$) expressed that it helped, without making any significant comment. The others indicated that it provided them a calm and healthy perspective in coping with stress ($f=5$), increased their consciousness for coping with stress ($f=5$), strengthened their mind and body ($f=3$). Within the context of other opinions ($f=2$), it helped them to be tolerant and patient and provided a meditation like impact. They also indicated that PM contributed to cope with stress moderately ($f=3$). Five participants said that they could not make a firm comment in this respect, while two participants stated that it had not made any contributions.

4.2.11. Do You Think You Better Deal with the Negative Emotions by the Help of PM?

The findings that were categorized a result of the responses of participants whether they could overcome negative emotions better through practicing PM regularly are given in Table 13.

Table 13
Ability to Overcome Negative Emotions with PM

Themes	Views	f	%
Have an impact: P1, P2, P4, P5, P6, P7, P8, P9, P12, P13, P14, P15, P17, P19, P20, P21, P22, P23, P24 P25, P27, P28, P29, P30, P31, P32	<i>I can overcome them more comfortably, I can get into that consciousness more easily, or once I am on that mind set, I can get it into my life easily... (P2).</i> <i>... It calms me down. It decreases my temper, neutralises it. You become calmer and more tolerant (P5).</i> <i>... I was very much pessimistic, it is getting better... I had negative emotions for the future... I think less now, I do not think negatively so much as I used to. Or at least I do not think in a way as if the worst of everything will come true... (P6).</i> <i>... I am a type who can get tense... and relaxed... very quickly... I have hasty temperament... when I have a problem during the day ... I do not think over it too much... When I do the Pilates... I try to concentrate myself... and sometimes... I think in a calm manner... in the last part in particular... sometimes even a minute can help... I can come up with a solution sometimes... (P14).</i> <i>... My life is very turbulent at the moment, I have problems at work. However, I can focus myself comfortably within that hour without thinking about them. If I do not practice the Pilates at that time, I would be thinking about my problems, I will always think about them. But I do not think about the problems at work, this is useful for me in that respect (P22).</i>	26	81.25
No Idea: P3, P11, P16, P26	<i>... I have not noticed (P3).</i> <i>I have not thought about it, I have not realised it either. It may be because I control my breath ... coping with stress may be a kind of control (P11).</i> <i>... I have never paid attention (P16).</i> <i>... I have not observed... I do not know (P26).</i>	4	12.5
No Impact: P10, P18	<i>I cannot cope with them. In other words, I rule my inner world (P10).</i> <i>No (P18).</i>	2	6.25
Total		32	

As Table 13 indicates, majority of the participants ($f=26$) expressed that they could overcome negative emotions better through practicing PM regularly. Furthermore, four participants did not express any views as they did not experience negative emotions before, while two participants indicated that it did not help them in this respect.

4.2.12. Have You Observed any Changes in Your Ability to Concentrate or Focus through PM?

The participants were asked if there were any changes in their ability of concentration as a consequence of PM, in this particular, the frequency distribution of views are presented in Table 14.

Table 14
Ability of Concentration through PM

Themes	Views	f	%
Have an Impact while Exercising: P1, P2, P4, P5, P7, P9, P12, P13, P15, P16, P17, P19, P21, P22, P27, P28, P29, P30, P32	<i>Exercising for an hour continuously requires putting everything aside and not thinking about anything, it takes concentration... I think I can concentrate very well. In other words, my mind is not occupied with any other thought, only the Pilates. My body rests in that respect. This actually may be the reason the body rests... Actually, that is probably the reason for having a rest. In a way... it may be a half meditation (P9). The Pilates helps a lot in concentrating... In the beginning... I did not realise how important the concentration was but you see it in due course... It really trains you... (P15). The slower the movements are, the stronger my concentration is. I feel loss of concentration in fast movements, but when they are slower, I concentrate on doing them slowly and it gets more blissful... Especially when I do it with the instructor, I cannot think about anything else, I feel that I concentrate a lot at that time (P16). ... I started being a better listener... normally I listen to people more superficially ... my mind may be busy with other things... I realize that and I listen to people's problems better... I am a doctor at the end. I think I perceive it more carefully and I can help people more... (P6).</i>	19	59.4
Have an Impact on Daily Life: P6, P10, P11, P18, P20	<i>... I have observed this in many fields: concentrating on what I read, what I do, being able to plan my day... I have always had them... but they continue with more consciousness (P10). It distracts my attention less... I may be able to concentrate and for longer periods of time as I am stronger and have more stamina (P11). ... I could not concentrate once due to my depression... After I started the Pilates, I have seen that it has gone away slowly, disappeared. It is the same in my work life, I need to read a lot, I need to follow this closely. Therefore, I can say that my concentration disorder has gone away, I feel much better (P18).</i>	5	15.6
No impact on Daily Life: P2, P3, P7, P8, P24, P25, P26	<i>... Actually, I could not experience that much. I have already been very concentrated and working very relaxed. My life continues in its course as usual ... (P2). ... It has not been affected much (P8). My life is a bit monotonous ... grandchildren, house, children ... I do not have a lot and the rest continues in their normal course (P26).</i>	7	21.9
No Idea: P5, P14, P31	<i>I can practice it once a week ... if I could do more, mid-week, it could be more useful (P5). There has not been much that I can think of (P14). I have not seen any impact in this respect (P31).</i>	3	9.4
Total		34	

As it is seen from Table 14, most of the participants ($f=25$) expressed positive effect on concentration through practicing PM. They emphasized that practicing PM had positive impact on their ability to focus while exercising ($f=19$) and in daily life ($f=5$). Furthermore, there were participants who revealed that PM did not have any impact on their daily lives ($f=7$). Three participants said that they have paid no attention to this factor.

4.2.13. Do You Think Practicing PM Has Affected Your Spiritual Life?

The participats were asked whether they considered any changes in humanistic, nature, and God oriented spiritual lives as a result of participating in PM regularly and their point of views are presented in Figure 6.

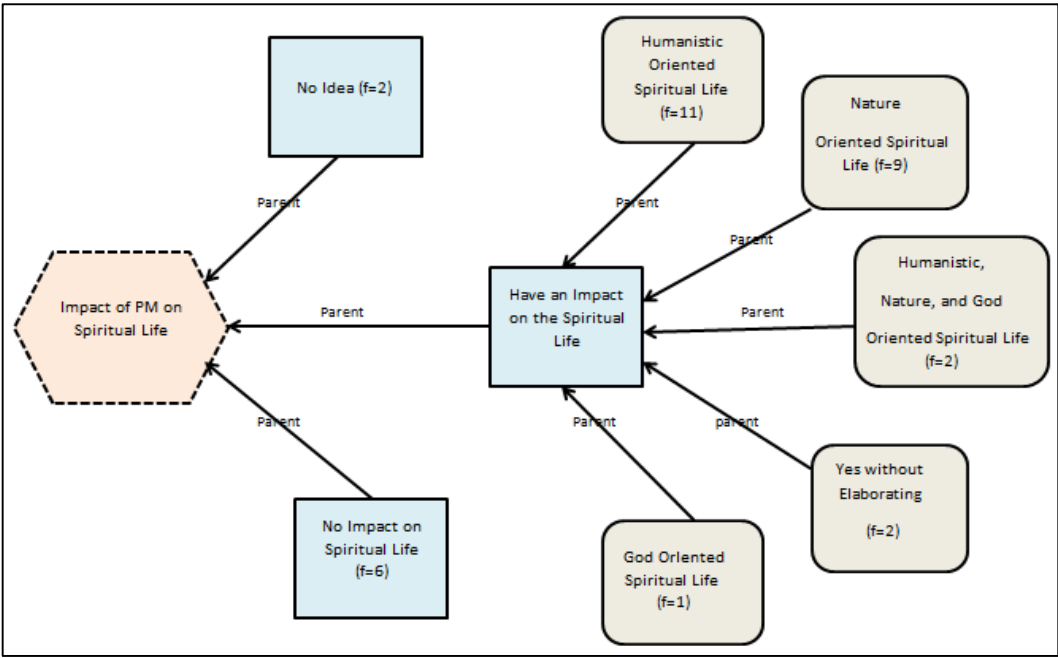


Figure 6 Impact of PM on Spiritual Life

As it can be seen in Figure 6, there are views expressed by the participants that PM had an impact on their spiritual life, while there were also views expressed by the participants that they did not have any impact in this respect, or they did not pay attention to this subject to be able to express an opinion. Frequency distribution of the views expressed by the participants on spiritual life is presented in Table 15.

Table 15
Impact of PM on Spiritual Life

Themes	Sub-Themes	Views	f	%
Have an Impact on the Spiritual Life	Enables a Humanistic Spiritual Life: P1, P4, P5, P11, P14, P20, P26, P27, P28, P30, P31	...There is actually a gem inside of me. I think it is very useful to unearth this. I believe every human being has this inside of them... It is important to be able to rule your own body, I learnt that I could do this... The Pilates can be very useful for everyone in this respect (P5). You get more positive when you feel that your moral motivation is high. You get more positive in relations with the others. You also know that it has a positive influence on you due to [its impact on] your appearance, more confident, more secure and more humanistic in human relations (P11). ... I fulfil my responsibilities for myself before anything else, and I make progress on the way to fulfilling my responsibilities for the others ... My self-respect turns into what I want to do for other people. Therefore, I try to live my life in a more disciplined manner ... with better planning, better organised, I try to allocate time for the others (P28).	11	34.4
	Enables a Nature Oriented Spiritual Life: P7, P12, P13, P15, P17, P22, P25, P26, P32	I can say that it enhanced my perception and sense for the other environment (P12). ... I can see that I notice the beauty of the nature more. In other words, it brought me close to the nature. Because when you start getting to understand your own body, you also take a step forward towards the nature ... you understand yourself, other people and the nature better (P15). It may be to do with my age, I am not sure, but it made me feel that I needed to turn to nature, with its vegetation, animals ... I can see things in the nature that I have not seen before. It also enhanced my feelings of loving people and forgiving them. I have always loved people, but this has enhanced that feeling of mine (P17).	9	28.1
	Enables a Humanistic, Nature and God Oriented Spiritual Life: P16, P19	... They may have been impacted all together, there is something from all. It has a mystical edge when it comes together with music... it is good for soul. There surely is a humanistic side, it really reinforces the ability of human beings to know their bodies. I have not thought about its links to the nature so far but I believe that it is very good for discharging negative electricity (P16). ... I think there has been a spiritual uplift about the nature. Because you learn to be a peace with yourself, you get to know your body better, understand how you will rule it. It enforces direct links with the creator (P19).	2	6.25
	Yes without Elaborating: P21, P29	I have not paid attention to this at all ... but it must have had (P21). ... I think it has a very positive influence (P29).	2	6.25
	Enables a God Oriented Spiritual Life: P10	... I have strong faith. During the Pilates exercises, I have felt how beautifully human body was created, its flexibility, muscles... It really raises a respect for the creator. Because you feel it when you exercise... (P10).	1	3.1
No Idea: P2, P6	I think I am not interested, or it may be more appropriate to say that I have not paid much attention to this rather than saying that I am not interested (P2). ... I have not thought about this much (P6).	2	6.25	
No Impact on the Spiritual Life: P3, P8, P9, P18, P23, P24	I did not have that ... in my opinion (P8). No, I believe in myself, I can trust myself (P9). ... I am not a spiritual person... maybe I am too realistic... it does not attract my attention I think (P23).	6	18.7 5	
Total			33	

As indicated in Table 15, majority of the participants ($f=25$) expressed that practicing PM regularly influenced their spiritual lives. They mainly stated that PM directed them

towards a humanism oriented spiritual life, emphasizing their success or potential in this respect (f=11). This view was followed respectively by a nature oriented spiritual life (f=9), and the God oriented spiritual life (f=1). Two participants indicated that PM influenced them towards a humanistic, nature, and God oriented life style at the same time There were two participants revealed that their spiritual lives were affected without making any explanation. Furthermore, six of the participants stated that PM did not have any impact on spiritual aspects of their lives whereas two participants said that they could not make assessment due to the absence of their experiences in this respect.

4.2.14. Do You Think Participating in PM Has Affected Your Life Style?

Social relations, academic and work life, hobbies, nutrition patterns, bodily functions, and physical exercises and sports shape lifestyles. This section focuses changes on participants’ lifestyles as a result of practicing PM regularly.

The participants were asked if practicing PM regularly put any changes in their life styles and their views in this regard are given in Figure 7.

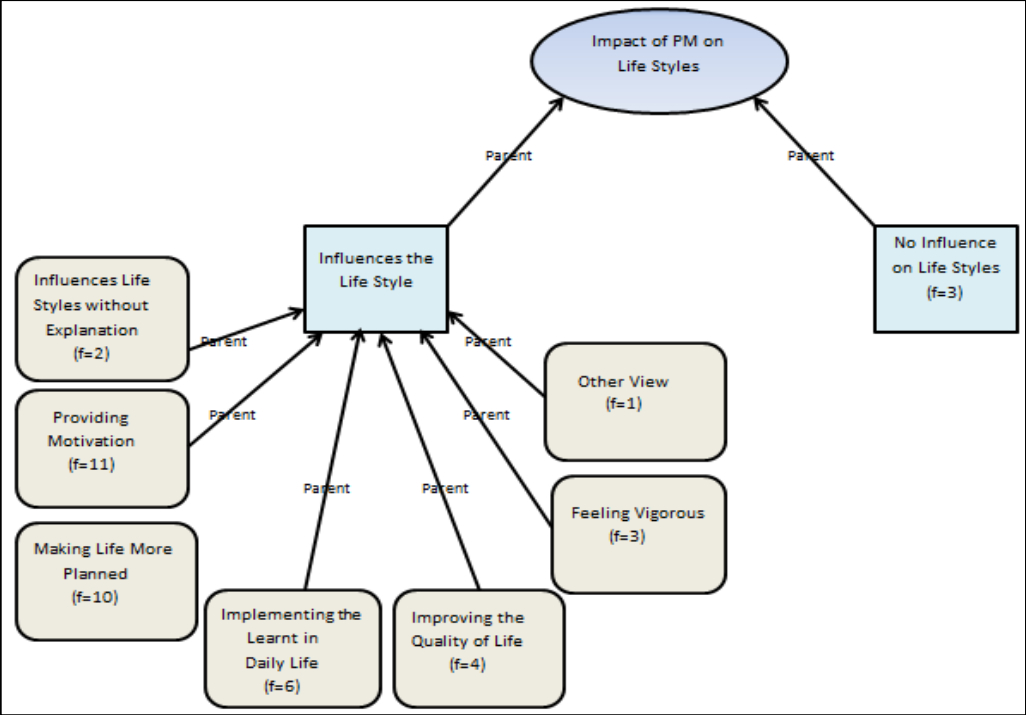


Figure 7 Influence of PM on Life Style

Figure 7 exhibits, the participants expressed that PM influenced their lives through motivating them, making their lives more planned, implementing the principles of PM in their lives, increasing the quality of their lives, and making them feel more vigorous. In addition, PM was considered as not having any impact on life styles of some participants. The frequency distribution of the views expressed by the participants on these matters is presented in Table 16.

Table 16
Influence of PM on Life Style

Themes	Sub-Themes	Views	f	%
	Providing Motivation: P1, P4, P6, P7, P9, P12, P16, P17, P23, P26, P30	<p>... I think I can allocate time for myself, this motivates me (P1).</p> <p>You can be more focused on what you do... it enables you to do what you need to do properly, not perfunctorily, either consciously or unconsciously (P6).</p> <p>For example, there is stamina, liveliness inside of me for going to the Pilates... I have desire to start as soon as possible. It vitalises me... the life goes on monotonously with television, newspapers, if I do not do it... The Pilates brought vitality, joy, vigour to my life (P26).</p>	11	34.4
Influence	Making Life more Planned: P1, P4, P5, P10, P14, P16, P18, P28, P30, P31	<p>... I think I can allocate time for myself, this motivates me. In general, over the weekends... I arrange my morning sleep according to my Pilates schedule. This brings a new rhythm to my life (P1).</p> <p>... I am actually not a kind of person who can make things in an order... first of all, it gave me that ability... it entered my life as a good ritual and remained like that. It is important for me for that reason... It brought an order and for the first time I want to do something more frequently willingly (P5).</p> <p>While I do this... I started looking after myself better... what I eat, drink, my food, sleep times ... I started paying more attention to everything... They all started coming together (P31).</p>	10	31.25
	Implementing the Learnt in Daily Life: P2, P11, P16, P19, P24, P25	<p>... I realise that I pay attention and use what I learnt from the Pilates... what it gave me. For example, my knowledge of the Pilates exercises influences my relationship with my patients... When I suggest them exercises... they support me in better guiding them (P11).</p> <p>While having short walks for example... I notice contract my thigh muscles... I pay attention to feel my body, these muscles (P16).</p> <p>For instance, while sitting somewhere, on a chair, or a couch, I try to sit straight, not slouch; or like trying to keep your posture up while walking (P19).</p> <p>... It always comes to my mind when I am moving, in my posture, shoulder position, standing position. It reminds me all the time to breathe correctly, and naturally this influences all aspects of my daily life (P25).</p>	6	18.75

Table 16 (continued)

Themes	Sub-Themes	Views	f	%
Influence	Improving the Quality of Life: P12, P13, P15, P28	<i>Living a quality life goes hand in hand with having a healthy life. The quality of my life has increased since I started these exercises, because I have become healthier, physically, spiritually. It made me feel much better, regarding my pain, feeling good, as well as doing something for myself (P13).</i>	4	12.5
		<i>... I think it has influenced very positively. This really has worked for me, it saved me from medication, I got connected to life back again in a way (P15).</i>		
		<i>... After the period of acute herniated neck discs and the worst back pain was left behind, I started intense Pilates exercises. I am in that pace at the moment, if I do not exercise, my pain comes back, but when I exercise, when I do the Pilates, I never have problems (P28).</i>		
	Feeling Vigorous: P9, P12, P19	<i>... I feel myself more vigorous (P9).</i>	3	9.4
		<i>It allowed me to be more energetic... I can do more work... Especially in the mornings... after we do the Pilates exercises... throughout the day, my energy lasts for a long time, I feel more active. I feel myself more energetic (P12)."</i>		
Other View: P22	<i>I feel that it gave me self-esteem ... I feel that I care for myself (P22).</i>	1	3.1	
the Life Style without Explanation: P21, P27	<i>I have not thought about it but yes, that is right, it has influenced, absolutely (P21).</i> <i>I think, yes (P27).</i>	2	6.25	
No Influence: P3, P8, P20	<i>I do not think so, no (P3).</i> <i>No, it has not influenced much (P8).</i> <i>No (P20).</i>	3	9.4	
Total			40	

As indicated in Table 16, majority of the participants ($f=43$) believed that the PM influenced their lifestyles. In this context, the stated opinions include providing motivation ($f=11$), making life more planned and orderly ($f=10$), implementing the principles of PM in daily life ($f=6$), improving the QOL ($f=4$), feeling more energetic ($f=3$), and other opinion ($f=1$) as giving her self-esteem and feeling of care for herself. Furthermore, two participants expressed that PM influenced their life styles without making any comments. Other three participants believed that PM did not have any impact on their lifestyles.

4.2.15. Do You Think that Participating in PM Has Influenced Your Perspective on People and Events?

The participants were asked if there were any changes in their perceptions toward people and events as a result of participating in PM regularly and their opinions in this manner are provided in Figure 8.

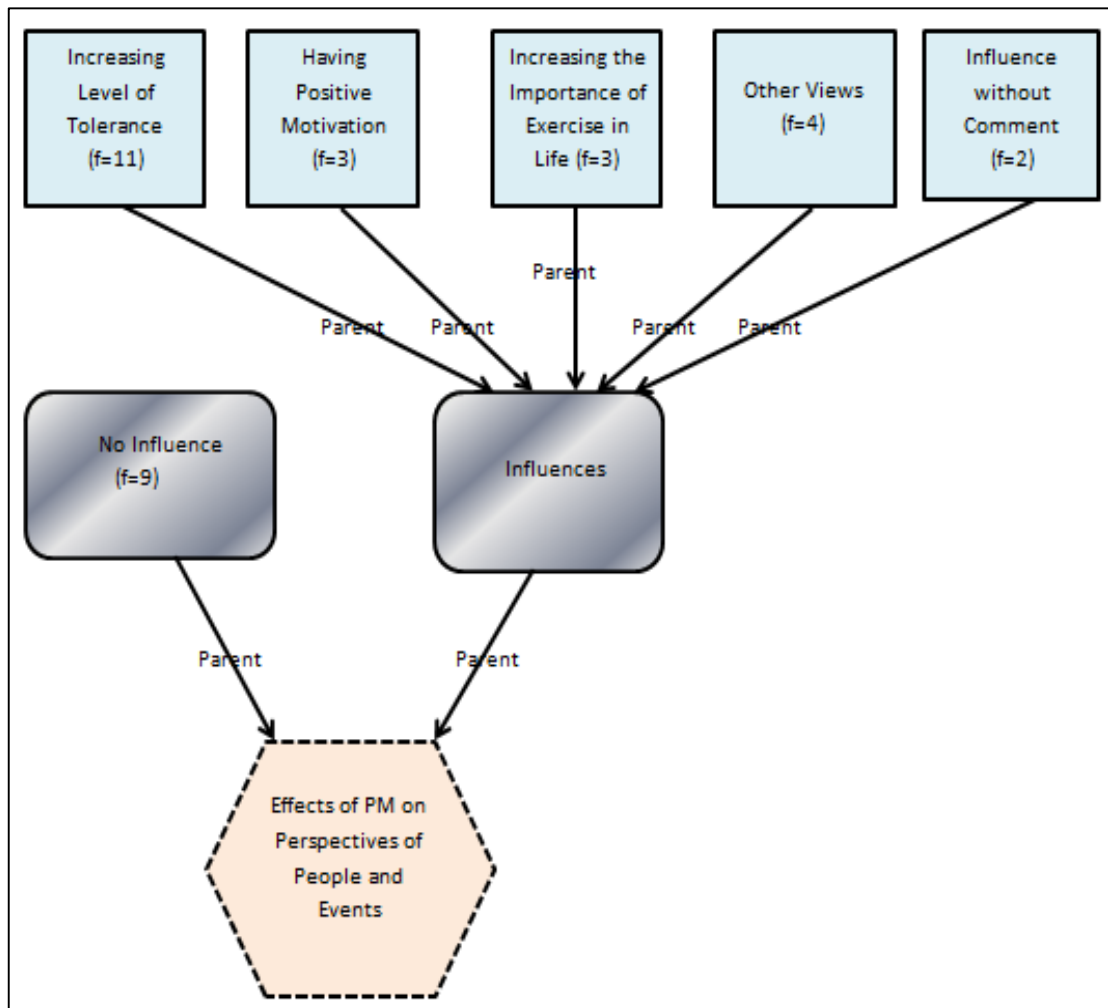


Figure 8 Influence of PM on Perceptions of People and Events

As can be seen from Figure 8, there were views pointing to the presence and absence of the influence of PM on perceptions of people and events. Frequency distribution of the views expressed by the participants on this subject is given in Table 17.

Table 17
Influence of PM on Perceptions of People and Events

Themes	Sub-Themes	Views	f	%
Influence	Increasing the Level of Tolerance: P4, P7, P14, P15, P17, P19, P21, P26, P29, P30, P32	<i>Making exercise part of my life... it is a luck for me... I have a more tolerant perspective... for people who could not achieve this. I ask myself whether they had a good day, or they could relax. I had my exercises done, I could breathe, purified myself, but how about them, what type of life they have had (P14). ... I had a very positive approach to people... to events (P15). I might have become more tolerant (P21).</i>	11	34.4
	Having Positive Motivation: P11, P27, P28	<i>As it provides a general positive motivation... it must influence (P11.) Exercise ... keeps you and your mind fresh... Walking sometimes would strain me but I do not feel that in the Pilates... swimming and the Pilates, I cannot choose between the two, they are both pleasing, and great exercises (P27).</i>	3	9.4
	Increasing the Importance of Exercise in Life: P8, P12, P19	<i>It made exercise more important, demonstrated how important exercise was in our lives, it taught us that (P8). I have always believed the necessity of exercise in principle, but I had given a break at that time. I really admire people more who do exercise (P12).</i>	3	9.4
	Other Views: P6, P16, P23, P25	<i>I am more focused (P6). You look into all differently... get more conscious (P16).</i>	4	12.5
	Influences without Comment: P13, P20	<i>It may have changed my perspectives on people and events (P13). ... It changes with age as well as with the Pilates, it escalates (P20).</i>	2	6.25
	No Influence: P1, P2, P3, P5, P9, P10, P18, P22, P24	<i>No, there has not been anything significant that I have realised (P9). ... I have not noticed anything like that (P18). ... I cannot say anything in this respect. I have good intentions towards people in general. But ... I am not sure to what extent it is right to approach people with good intentions, in such a world, such an environment (P22).</i>	9	28.1
Total			32	

As indicated in Table 17, while 9 participants expressed that performing PM did not influence their perceptions on people and events, 23 participants indicated that it changed their perceptions. The views expressed by the participants were grouped under the themes of: increasing the level of tolerance ($f=11$), providing positive motivation ($f=3$), and increasing the importance of exercise in life ($f=3$). In addition, 4 participants' views were grouped under the theme of other opinions which were stated as being more focused, getting more conscious, being not respectful to others who do not exercise, and influencing the way to look at people's physical appearances. Furthermore, two participants stated that practicing

PM influenced their perceptions on people and events but they have not explained the reasons for this.

4.2.16. Has Participation in PM Affected Your Relationships with Your Family, Friends, and Colleagues?

The participants were asked if practicing PM in a regular manner had any effect on their relations with family members, friends and colleagues. Firstly, views expressed by the participants on influence of performing PM regularly on family relationships are given in Figure 9.

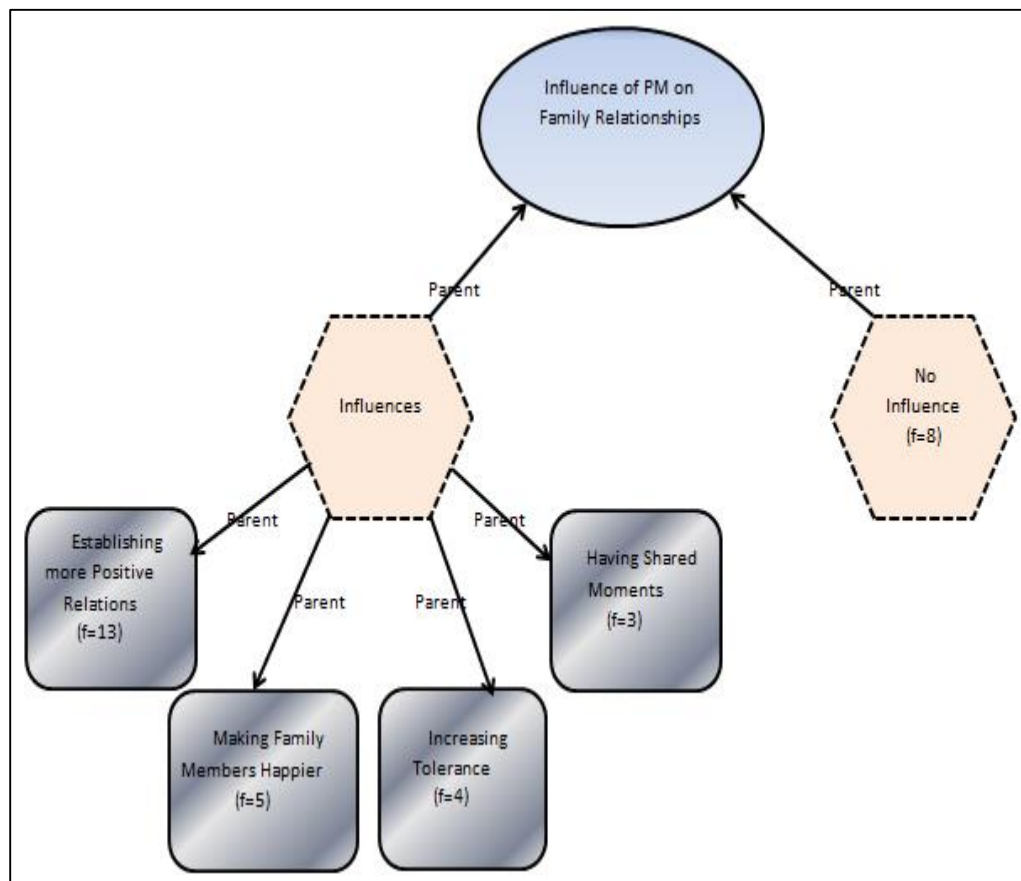


Figure 9 Influence of PM on Relations with Family

As can be seen in Figure 9, there were two groups of participants who thought that PM influenced the family relationships and they did not. Frequency distribution of the views expressed by the participants in this respect is given in Table 18.

Table 18
Influence of PM on Relations with Family

Themes	Sub-Themes	Views	f	%
Influence	Establishing more Positive Relations: P1, P4, P6, P8, P14, P15, P16, P17, P23, P27, P28, P29, P31	... When I feel myself better, my attitude towards my partner gets better. I think he feels happy too (laughter) (P6). ... When I am happier, more energetic, my relationships with them can be better... (P23). ... Let's take my partner as an example, since I practice the Pilates, I am more agile in my movements... more comfortable. I can do the house works more comfortably and this makes sharing easier (P29).	13	40.6
	Making Family Members Happier: P2, P9, P20, P26, P30	My family... feels happier on my behalf, because... I do not practice these exercises for the sake of doing them... I started practicing them for health in particular. When I am healthier, they see the change in me and feel happier (P2). They feel happier when I exercise, become part of it. I like it when I enjoy telling them about the exercises (P9). It influences my relationship with my children because they get really happy, I think my siblings too. Also, my partner but he does not show that (laughter) (P20). ... My partner says: get up, look, this is your Pilates day today, do and do it. This means that it has influenced him as well, he encourages me (P26).	5	15.6
	Increasing Tolerance: P12, P19, P21, P32	... you get more tolerant as a result of such an exercise. The time you allocate for yourself returns back to you in a more positive manner (P19). ... I get calmer, especially towards my children (P21). The flexibility it has given you, if it has made your psychology, you, a more confident and more tolerant person... this is extremely a successful and positive outcome (P32).	4	12.5
	Having Shared Moments: P5, P6, P18	... I do it with my mum and sister... there is hardly anything that we do together and take so much pleasure; there is eating on top of the list, sometimes going to the movies. But really... the Pilates is becoming one of the rare moments three of us do something together willingly and take pleasure (P5). First of all, we do it together (sister and mum), it provides a bond of course, stronger, something that three of us do together. After all, we talk, have conversation, but we have not much joint activity together. I mean this is something much nicer to share as we do it together (P6). It is much more fun since I do it with my child. Something I tell my husband, come and join us. I of course want to do it together, I believe it will be much better (P18).	3	9.4
No Influence: P3, P7, P10, P11, P13, P22, P24, P25	It is to do with the intensity at that time. I mean it would be correct if I said it did not influence (P13). ... My relationships continue as before... (P22). I do not think it has had any influence (P25).	8	25	
Total			33	

As shown in Table 18, the participants who thought that PM influenced the family relationships were more in numbers than who did not. In this context, the participants stated that they established more positive relations with

family members ($f=13$), felt happier on behalf of family members ($f=5$), their tolerance towards family members had increased ($f=4$), and they shared something with family members as they exercise together ($f=3$). Eight participants, however, thought that PM did not influence their relationship with their families.

Secondly, the participants' views on the influence of PM on relations with friends are given in Figure 10.

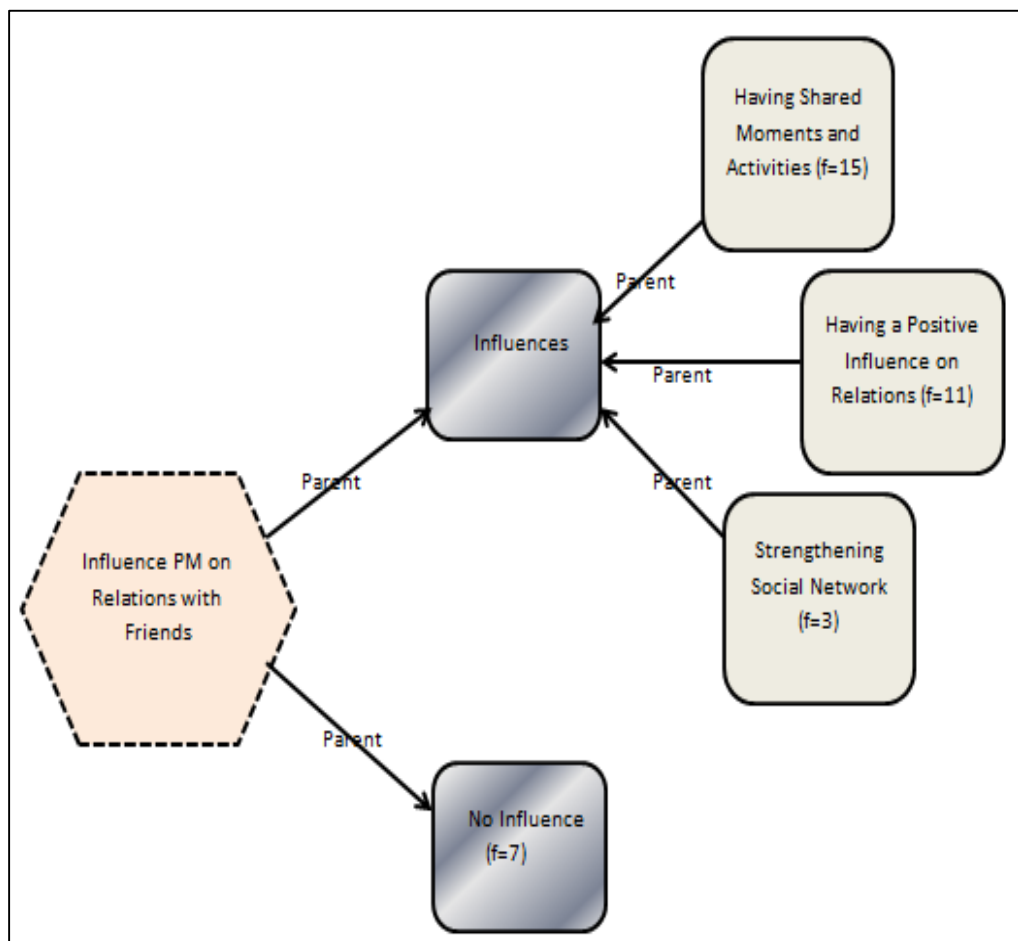


Figure 10 Influence of PM on Relations with Friends

As shown in Figure 10, there were views expressed by the participants both in favour and against the influence of PM on relations with friends. Frequency distribution of the views stated by the participants regarding influence of PM on relations with friends are presented in Table 19.

Table 19
Influence of PM on Relations with Friends

Themes	Sub-Themes	Views	f	%
Influence	Having Shared Moments and Activities: P2, P6, P11, P12, P14, P16, P17, P19, P20, P22, P23, P24, P28, P29, P30	<p>... One common thing we have with friends, for example, is having something to talk about... we have more to share (P12).</p> <p>It creates a social activity area. For example, when you do it with a friend or a group of friends, it can turn into a social activity and it gives you a topic to talk about in your social relations. It brings you together around a topic and makes you focus on it (P19).</p> <p>... Yes, in a good way. Groups are formed, friendships get stronger, we see it more frequently with the people we practice the Pilates together (P29).</p>	15	46.9
	Having a Positive Influence on Relations: P4, P5, P8, P13, P15, P16, P17, P21, P25, P27, P32	<p>It enabled me to be more positive with my friends (P8).</p> <p>... When you feel more peaceful and happier, you also look around warmheartedly, you treat them better... as it gives happiness to people, it definitely influences... In other words, I may be setting an example to the people around me, actually I tell it everyone at my work place and many young people around myself started going to the studios, saying that they will also start doing [the Pilates] (P16).</p> <p>... I feel that I have become more tolerant, more forgiving (P17).</p>	11	34.4
	Strengthening Social Network: P6, P9, P22	<p>I have friends practicing the Pilates... we can talk about this... what they have gained... I am a new starter... we talk about how much difference it has made... we talk about it... and we have a common topic... as I value myself more and feel better, I am sure that I got stronger socially. The number of my friends has increased... Most probably it is to do with the Pilates ...I feel more social (P6).</p> <p>Very good communication with my friends. We are having great fun in the group, we get very happy, we spend a very happy hour together (P9).</p> <p>... I feel happy that we will come together with friends and exercise... It feels also good for my soul, we joke during the exercises, after the exercises, we go somewhere together. In other words, it is a social activity for us... (P22).</p>	3	9.4
	Do not Influence: P1, P3, P7, P10, P18, P26, P31	<p>No, I do not think so (P1).</p> <p>No, I do not notice (P3).</p> <p>I have not encountered any problems in relations with my friends before, so it did not influence for this reason. It continues as it was, it continues in a good way (P31).</p>	7	21.9
Total			36	

As seen in Table 19, majority of the participants stated that PM influenced their relations with friends. In this context, they indicated that it created something a shared ground with friends doing the Pilates method ($f=15$), influenced the relations more positively ($f=11$), and had ability to strengthen social relations ($f=3$). On the other

hand, some participants ($f=7$) expressed that PM had no impact on relations with friends.

Thirdly, the participants were asked to express their views on the impact of PM on relations with colleagues. 10 participants were excluded from the scope of this question as they were not working actively. Frequency distribution of the views expressed by the participants is given in Table 20.

Table 20
Influence of PM on Relations with Colleagues

Themes	Sub-Themes	Views	f	%
Influence	Influence Relations Positively: P4, P5, P7, P8, P15, P19, P22, P25, P27, P29, P31	<p>... It has a more positive influence... better (P8).</p> <p>... It brings about a much more positive approach... on relations with my friends... on my work... I had a calmer approach... more positive (P15).</p> <p>... I think I have had a more tolerant, warmer approach to people... (P19).</p> <p>It influences, in a more positive way (P22).</p> <p>I believe it influences in a positive way (P25).</p> <p>... Yes, in a good way. It forms groups, strengthens friendships, as people doing the Pilates exercises together, we see each other more often (P29).</p> <p>I have colleagues doing the Pilates, therefore ... it gives us a shared interest. In other words, instead of smoking, we talk about the Pilates... (P12).</p>	11	34.4
	Improve Social Communication: P6, P11, P12, P16, P28	<p>... Most of my friends do the Pilates... When we talk about how good the Pilates feels for our souls together... I also feel that it has a positive influence on our social relations, too (P11).</p> <p>... As we do it at work, it automatically creates a fellowship of the Pilates among ourselves, just like the fellowship of the ring. We communicate with each other during the day ... are you coming today, I cannot, it is not about what we do ourselves alone, also in the social set up it brings about... it creates one. There are moments we talk about it (P28).</p>	5	15.6
	Improve Solidarity: P13, P14	<p>The Pilates was good for my health... it also demonstrates that it has had a positive influence. I mean, when I am healthy, I can be useful to people around myself... it makes me feel healthy, then it has a positive influence on me (P13).</p> <p>My exercise partner, for example is very happy... people ask if she goes and exercise with her boss... when I am not there, when my exercise partner is not there, people who are in the office tolerate us... they say you go... we are here... They tolerate us here on this, on something else... My exercise partner tolerates them (P14).</p>	2	6.25
Have No Impact: P2, P18, P21, P24	<p>... There has not been any change, it is something that they probably want to join, too. Other than that, I have not noticed any change (P2).</p> <p>... There was no major change (P21).</p> <p>With my colleagues, no, it does not influence (P24).</p>	4	12.5	
Do Not Work: P1, P3, P9, P10, P17, P20, P23, P26, P30, P32			10	31.25
Total			32	

As seen in Table 20, excluding the participants, who were not actively working ($f=10$), majority of the participants ($f=18$) thought that PM affected their relations with colleagues. These participants state that PM positively influenced their relations with colleagues ($f=11$) and enhance their social communication ($f=5$). Furthermore, there were participants revealed that they improved solidarity with colleagues. The remaining four participants mentioned that this method did not influence relations with colleagues.

4.2.17. Have You Received any Comments from Your Family, Friends, and Colleagues Regarding the Positive or Negative Effects of Participation in PM on Your Personality, Physical Appearance, or Life?

The participants were asked if they received any feedback or comments from their family members, friends, or colleagues regarding possible negative or positive impact on their physical and personality properties as a result of practicing PM regularly. Findings received regarding comments are given in Figure 11.

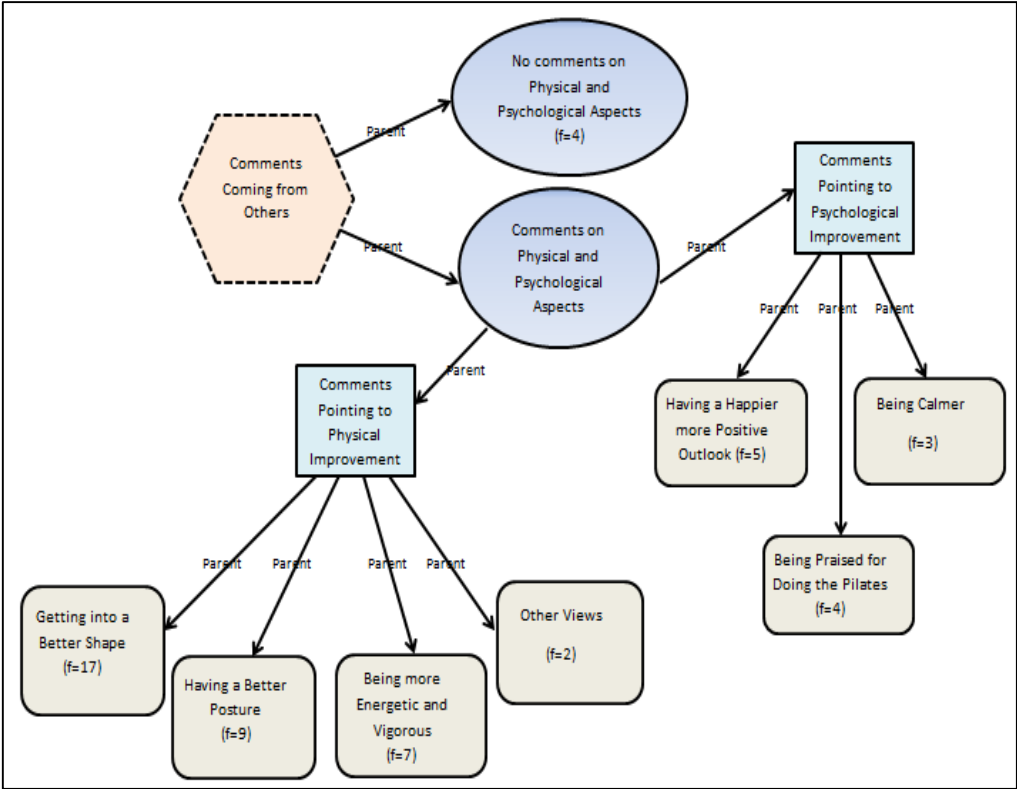


Figure 11 Comments from Others as a Result of Participation in PM

As seen in Figure 11, some of the participants stated that they received comments regarding positive impact on their physical and psychological properties from others as a result of practicing PM while some participants indicated that they did not have any feedback or comments. Frequency distribution of the views expressed by the participants in this respect is given in Table 21.

Table 21
Comments from Others as a Result of Participation in PM

Themes	Sub-Themes	Views	f	%
Comments on Physical and Psychological Aspects Pointing to Physical Improvement	Getting into a Better Shape: P1, P2, P6, P8, P9, P11, P13, P14, P15, P16, P21, P22, P23, P25, P26, P28, P29	... I look pretty slim and fit... people started noticing this when they look from outside (P2). ... In particular my abs... there is an improvement there... they say I look slimmer (P6). I hear from my friends that my body looks more fit... My form must have improved (P9). ... I felt that my body got into a better shape... although I do not see any loss of weight, I received comments from the others that my body looks nicer. I also feel that it looks slimmer... tighter... Furthermore, I feel that it is more flexible (P13).	17	53.1
	Having a Better Posture: P1, P9, P16, P17, P21, P22, P23, P25, P32	... My Pilates instructor in particular... she had seen me somewhere else before... After the Pilates, she said that my posture has changed (P21). I have received positive feedback from both my friends and family members. They said that my posture has changed a lot... The curve in my back... I think it disappeared in time as my muscles worked (P22). ... My aunts, for example, people who know the structure of my back "... your back got straight up... it did not appear as if it would get any better... how did you do that" they say (P23).	9	28.1
	Being more Energetic and Vigorous: P6, P14, P16, P18, P25, P29, P30	The simplest thing about my walk... I walk faster compared to the past, that is what they say (P6). Everyone says ... your hits in volleyball became harder... they changed, you hit much better... more confidently... (P14). The others tell me all the time... how energetic you are at this age (P16).	7	21.9
	Other Views: P12, P27	My spouse told me too... "go and do some exercise, you will feel very good" ... I have problems in my lower back, pain (P12). ... They tell me that they notice the improvement, flexibility in my movements (P27).	2	6.25
Total			35	
Pointing to Psychological Improvement	Having a Happier and more Positive Outlook: P2, P7, P15, P19, P31	One person commented that: "you look like more relaxed and happier" (P2). My friends see me as a more affectionate, warmer, more positive person compared to the past (P19). ... there were many people who told me that I looked happier last summer (P31).	5	15.6

Table 21(continued)

Themes	Sub-Themes	Views	f	%
	Being Praised for Doing the Pilates: P8, P14, P17, P20	... A few of my close friends say "Tomorrow are you doing the Pilates? That is great, it makes you feel good" (P8). ... I had a feeling that I could do this... Maybe I got it from the remarks by our instructor (P17). They only say, you I do it well, well-done (P20).	4	12.5
	Being Calmer: P1, P5, P18	... There were people who said that I became calmer, my stress levels decreased (P1). ... It is for sure that I got calmer (P5). I received comments from my colleagues at work: "how come you can remain so calm and manage to tell people for so long" lately (P18).	3	9.4
Themes				
Total			12	
	No Comments on Physical and Psychological Changes: P3, P4, P10, P24	No, I have not received any comments (P3). I have not heard anything different (P4). No, I have not received (P10).	4	12.5
Total			49	

As can be seen from Table 21, strong majority of the participants ($f=28$) indicated that they received feedback from their family members, friends, colleagues, Pilates instructors and doctors on effects of practicing PM regularly. In this context, they stated that they received comments on physical and psychological improvements, respectively. Comments on physical improvement include in particular having a better body form ($f=17$) that was followed by improved posture ($f=9$), and feedback on being more energetic and vigorous ($f=7$). The participants also received comments pointing to pain relief and increased flexibility in movements under theme of other views ($f=2$).

In addition, comments on psychological improvements included happier and more positive appearance of the participants in particular ($f=5$). Furthermore, there were participants who are praised for practising PM regularly ($f=4$), and being calmer ($f=3$). In addition, 4 participants stated that they did not receive any comments from others on these matters.

4.2.18. Do You Feel any Differences Physically in How You Perform the Daily Tasks As a Result of Practicing PM?

The participants were asked whether they experienced any physical changes as a result of practicing PM while undertaking daily tasks. The views expressed by the participants in this manner are presented in Figure 12.

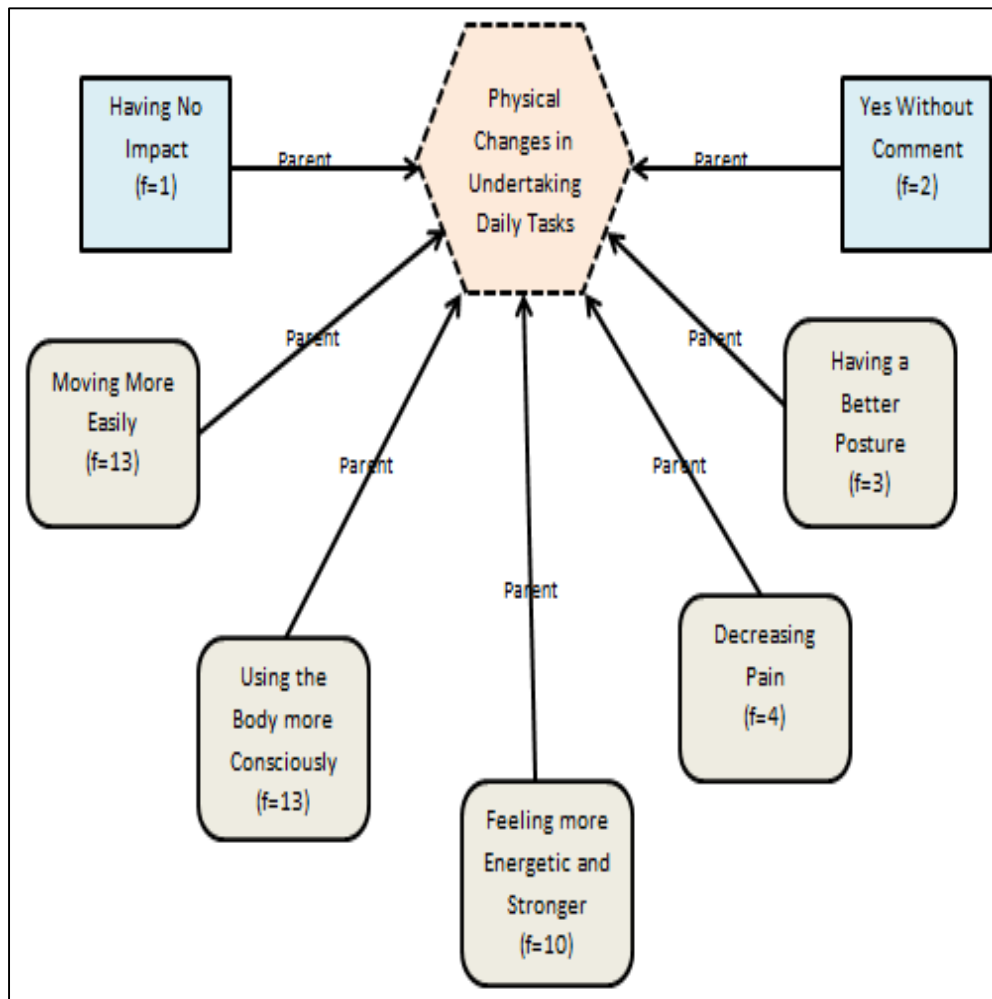


Figure 12 Physical Changes Created by PM in Undertaking Daily Tasks

As seen in Figure 12, physical changes resulting from the Pilates method exercises in undertaking daily tasks, which were noticed by the participants, were grouped under five themes. Frequency distribution of these themes is given in Table 22.

Table 22
Physical Changes Resulting from PM in Undertaking Daily Tasks

Themes	Views	f	%
Moving More Easily: P3, P6, P12, P13, P15, P17, P18, P19, P22, P24, P25, P27, P31	<i>I can move more easily (P3). I feel that I can move more easily (P25). I can walk more comfortably, I can bend and stand up more comfortably, I can move more quickly (P27).</i>	13	40.6
Using the Body more Consciously: P4, P5, P7, P15, P17, P18, P19, P21, P22, P23, P26, P27, P31	<i>As I started to know my body better, I do everything more consciously... This was very important for me... I already needed to be cautious to protect my back (P4). As I learnt how to use my body, I do not get tired as I used to be or suffer from pain (P5). I was encountering difficulties while lifting weight, but this was something I needed to do frequently... It was really struggling... Now I do not, I can lift very comfortably. And while lifting weight, I can control myself and my muscles (P15).</i>	13	40.6
Feeling more Energetic and Stronger: P1, P2, P7, P10, P11, P14, P23, P25, P30, P32	<i>... My energy levels go down when I do not exercise, but I feel more energetic when I do (P1). ... I get more energetic (P10).</i>	10	31.25
Having Decreased Level of Pain: P1, P5, P28, P29	<i>... My left shoulder was very bad, when opening a jar for example... I try to use my left hand sometimes in order to make both sides of my brain lobes. I have had pain, but now... I can do most things with my left hand very easily (P5). ... My pain from herniated neck and back discs has subsided... this has had positive impact on my work. Because I do not think about my pain as pain has gone away (P28).</i>	4	12.5
Having a Better Posture: P7, P9, P10	<i>There has been improvement in my body posture. Sometimes in simple daily tasks, even while cooking for example, we contract our muscles unnecessarily, our shoulders for example, our arms... It allows me to feel these better... Every 10 seconds it makes me say "wait a minute, what am I doing, bring your shoulders down, relax them, do not contract your knees" (P7). It must have... I stand upright (P9). It has made big differences in the way I sit, stand up, get in the car... walking on the street, my body posture (P10).</i>	3	9.4
Yes Without Comment: P16, P20	<i>I think so (P16). Yes, it does sometimes, sometimes I feel it has an impact (P20).</i>	2	6.25
Having No Impact: P8	<i>In my opinion, it does not have much impact while doing daily tasks (P8).</i>	1	3.1
Total		46	

As seen in Table 22, the participants stated that due to PM, they could move more easily while undertaking their daily tasks ($f=13$) and they could use their body more consciously ($f=13$). Furthermore, the participants indicated that they felt themselves more energetic and stronger compared to before ($f=10$), they had decreased level of pain ($f=4$), and they had a better body posture ($f=3$). Moreover, there were two participants who revealed that PM made a difference in conducting

daily tasks without giving details about how it happened. On the other hand, another participant expressed that she did not feel any difference in conducting daily tasks more comfortably due to PM.

4.2.19. Do You Think that Practicing PM Has Affected Your Work Life?

The participants in the present study were asked to reveal whether participation in regular PM exercises put an impact on competence at work. The findings regarding the impact of PM on participants' efficiency at work are presented in Figure 13.

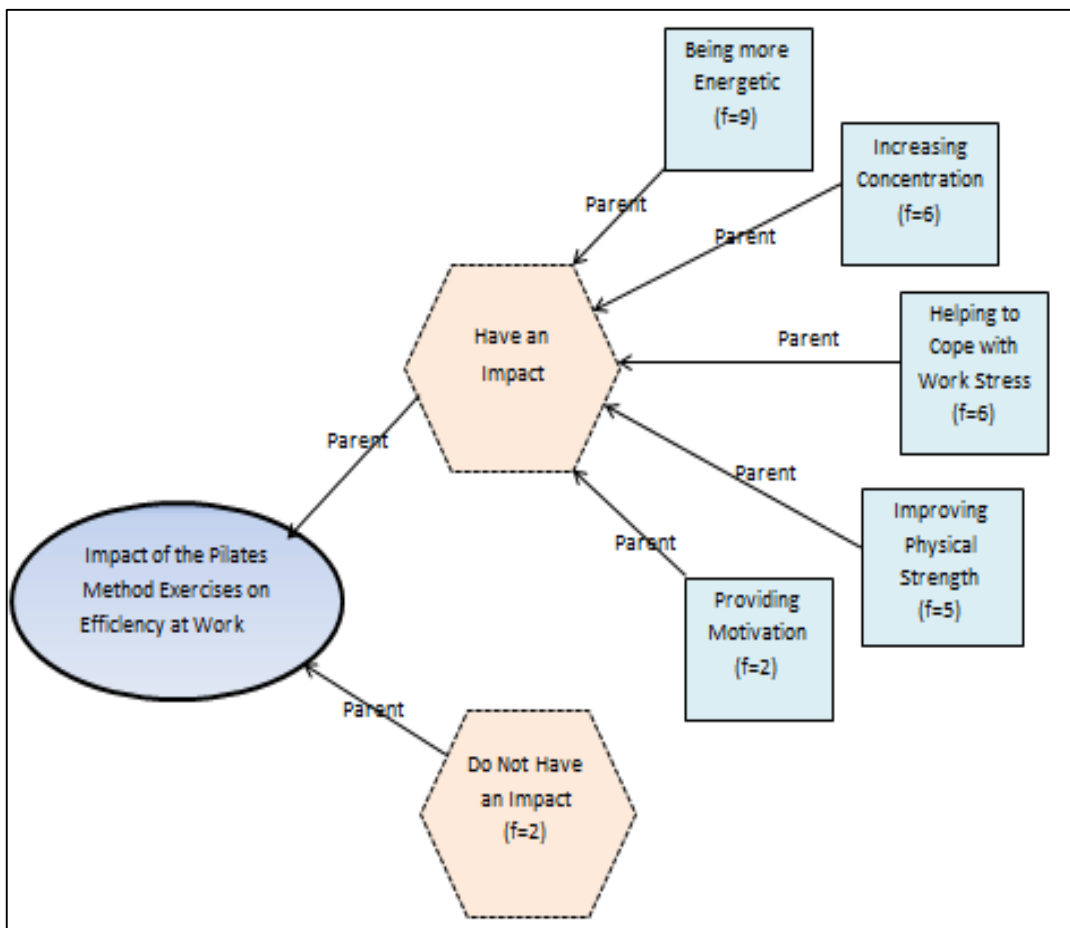


Figure 13 Impact of PM on Efficiency at Work

As Figure 13 shows, there were some participants who thought that PM had an impact on efficiency at work, and others did not think as the same. Some participants were not been asked this question as they had not been working

actively. Frequency distribution of the views expressed by other participants is given in Table 23.

Table 23
Impact of PM on Efficiency at Work

Themes	Views	f	%
Not Actively Working: P1, P3, P9, P10, P17, P20, P23, P26, P30, P32		10	31.25
Have an Impact	Being more Energetic: P5, P6, P7, P8, P12, P16, P18, P27, P29 <i>While taking the stairs in the hospital... which I do quite frequently... I do not complain about it much and I do not get tired as I used to. I was using the lifts more in the past... (P5). First of all, I started sitting upright and properly... As I have sit on a desk for 40 years, I used to slouch when sitting. I started sitting more upright, I always move my chair up and sit upright (P18). ... First, you get very vigilant, energetic (P29).</i>	9	28.1
	Increasing Concentration: P11, P12, P18, P19, P28, P29 <i>I may be able to concentrate for longer periods of time as I am stronger and more resistant (P11). I can concentrate more. For example, I can concentrate more on what I do as I am a teacher (P12). I can focus more easily (P19).</i>	6	18.75
	Helping to Cope with Work Stress: P2, P4, P15, P18, P19, P25 <i>... Even the presence of the Pilates itself makes me a calmer person... more tolerant when something unwanted happens... (P4). Most of the times I can do my work more calmly as it takes away my stress... (P15). ... I think it plays a role in coping with work stress (P25).</i>	6	18.75
	Improving Physical Strength: P11, P22, P24, P28, P31 <i>... My job requires standing up for long periods of time. In that respect, it has a positive influence, definitely for stamina (P11). I feel stronger by all means in my work life (P22). For instance, when I work and spend too much time in front of the computer, I would not notice the pain in my shoulder. I could sit in this wrong posture all day... Now, I notice it immediately and correct my posture or take precautions to compensate for it through stretching etc. (P31).</i>	5	15.6
	Providing Motivation: P14, P27 <i>My mood when I come here (to do the Pilates) and when I return can be totally different. I may have come up with solutions in my mind, I am out of that mindset and tell myself 'why did I make that issue up?' Having time off also has an impact... I get out of that mind set and look at the matter again (P14). ... It motivates me as I spend all my time with the exception of weekends at work (P27).</i>	2	6.25
No Impact: P10, P21 <i>... no effect... (P10). ... It has not had much impact on my work (P21).</i>	2	6.25	
Total		40	

As Table 23 shows, some of the participants had not been working ($f=10$). Majority of the participants, who work ($f=22$) stated that as a result of practicing PM regularly they had a positive impact on their work performance. The views in this respect were grouped under five themes. The most common theme expressed

by the participants was feeling energetic ($f=9$), increase in concentration ($f=6$) and coping with the work stress ($f=6$). Furthermore, they indicated that PM played a role in improving their physical strength ($f=5$) and providing motivation ($f=2$) for their efficiency at work. However, two participants stated that it had no impact on their efficiency at work.

4.2.20. Do You Think that Practicing PM Has any Influence in Your Approach to Start a New Activity/Taking Risk?

The participants were asked whether there was an impact of practicing PM regularly on starting a new activity or taking risk and the views expressed are presented in Figure 14.

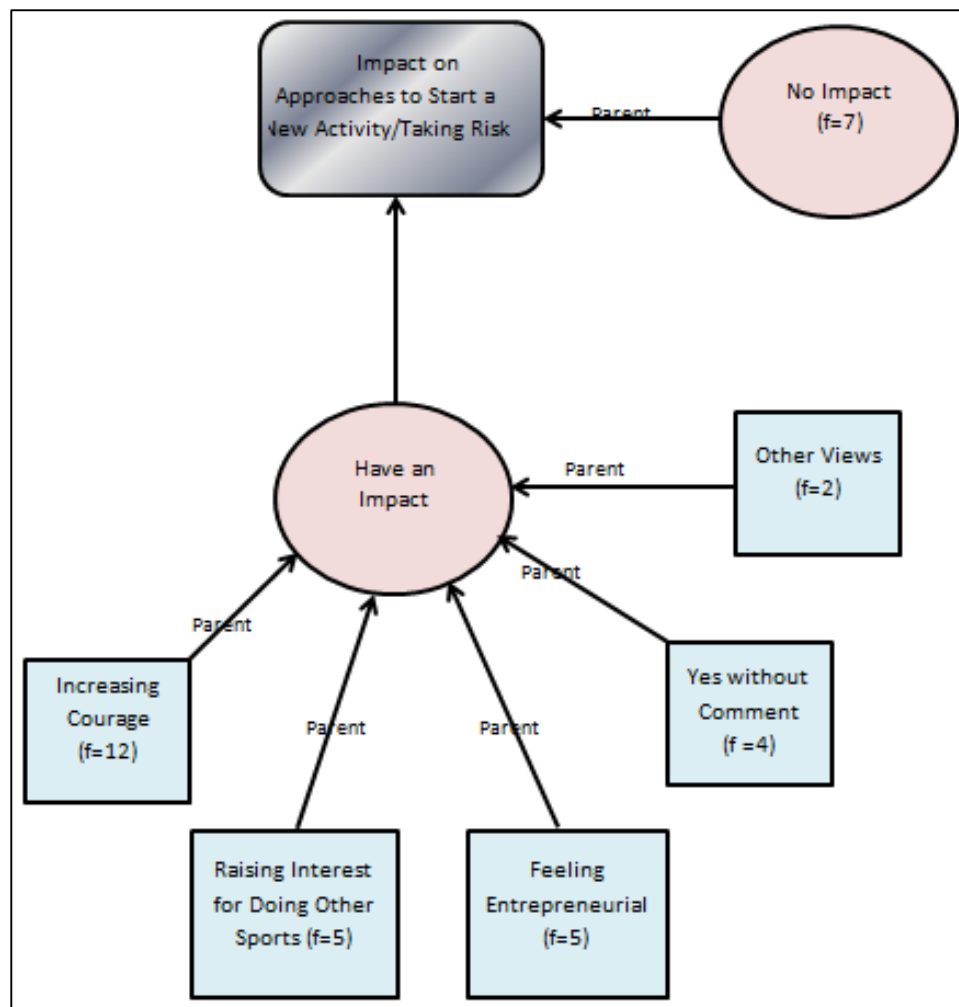


Figure 14 Impact of PM on Approaches on Starting a New Activity/Taking Risk

As Figure 14 shows, some participants thought that PM had no impact on starting a new activity or taking risk while some others defended the view that PM had an impact. Frequency distribution of the views expressed in this respect is given in Table 24.

Table 24
Impact of PM on Approaches on Starting a New Activity or Taking Risk

Themes	Sub-Themes	Views	f	%
Have an Impact	Increasing Courage: P1, P4, P6, P9, P12, P14, P16, P18, P24, P30, P31, P32	<i>It may have impact on my courage... I may think that I can do it (P1).</i>	12	37.5
		<i>If I can practice the Pilates regularly, I can also do other things, even more (P4).</i>		
		<i>... I have always been reserved about exercise... I thought I could not do it, I could struggle, but then I thought I could do softer exercises. May be walking... or even running, slowly. As my legs get stronger, I can do them better (P6).</i>		
	Raising Interest for Doing Other Sports: P5, P7, P11, P26, P27	<i>... I want to practice more and more exercise as I do them (P5).</i>	5	15.6
		<i>... For the first time in my life, I thought about going out for a run (P7).</i>		
		<i>... For example, I like dancing a lot. When I saw myself practicing the Pilates, I am over 60 years, I think in addition to that... I can get into such activities (P27).</i>		
Feeling Entrepreneurial: P8, P9, P19, P21, P22	<i>As you look at life more positively, you are open to new things more (P8).</i>	5	15.6	
	<i>... As your self-confidence increases, automatically your confidence for taking risk or going into a new business also increases. Under such circumstances you get to be more entrepreneurial, you approach a matter more positively and get into it (P19).</i>			
Other Views: P4, P5	<i>Of course, it happens. I mean possibly more confident (P21).</i>	2	6.25	
	<i>... I am now more conscious, more controlled... I can think more clearly. You get to be a person who can look at things more clearly... (P4).</i>			
Yes Without Comment: P13, P15, P17, P20	<i>... I want to exercise more and more... I eat lots of junk food... but I try to stay away from them... It is good for taking the edge off one's desires (P5).</i>	4	12.5	
	<i>Yes... it would have an impact (P13).</i>			
No Impact: P2, P3, P10, P23, P25, P28, P29	<i>... It may have a positive impact, yes (P15).</i>	7	21.9	
	<i>Of course, it would (P17).</i>			
	<i>It may be possible, it may have such an impact (P20).</i>			
		<i>Probably it has not got much impact (P25).</i>		
		<i>... It would not impact... if I was not short of time... I would integrate exercise into every segment of my life, I like any type of exercise... I wish I had more time, I could spend more time on any sports but I cannot (P28).</i>		
		<i>I have always been the same, neither too scared nor too courageous, somewhere in between. I do not think this has changed much (P29).</i>		
Total			35	

As illustrated in Table 24, the most of the participants ($f=25$) expressed that PM had an impact on their approaches on starting up a new activity or taking risk. The views expressed by the participants were grouped under the themes of increasing courage ($f=12$), raising interest for doing other sports ($f=5$), and feeling of entrepreneurial ($f=5$). In addition, other views ($f=2$) were stated as being more conscious, more controlled, thinking more clearly, and being good for taking the edge off one's desires. Furthermore, there were four participants who stated that PM had an impact on their approaches to start a new activity or to take risk without any comment. On the other hand, there were 7 participants who thought the opposite that PM had no impact on starting a new activity or taking risk.

4.2.21. Is There Anything You Dislike or Find Problematic Related to PM?

The participants were asked if there were any aspects that they did not like about PM or they found problematic. Frequency distribution of these matters is presented in Table 25.

Table 25
Views Expressed as Disliked or Perceived Problematic about PM

Themes	Views	f	%
Experiencing Difficulty while Performing the Exercises: P4, P13, P14, P23, P29	<i>... I used to think as I was doing something difficult (P4). I felt that I was getting exhausted while exercising in the beginning... (P13).</i>	5	15.6
	<i>... Face-down exercises where I lean on my arms really disturb me (P14). I cannot tell that I take exactly the same pleasure while doing every exercise movement... I get exhausted in movements that force me... in general... my legs, my knees... if they get tired I start having some problems. But actually, not to the extent that would discline me from the Pilates (P23). ... Sometimes because of my age and problems stemming from herniated discs, bones, there may be some problems due to not being able to do them totally right (P29).</i>		
Problems with Duration, Time, Frequency, and Venue of the Sessions: (duration: P4, P31; time: P19; frequency: P20; venue: P31)	<i>... In the beginning it would feel very long ... now time flies away so fast... (P4). ... We do it in the lunch break, I wish we had more time (P31). The exercise itself is not the only problem for me, the hours of the exercise... when I look at it personally, every human being has efficient and inefficient times, I believe we all have biological clocks. It may be early in the morning for some, around the afternoon for some and in the evening for some others. Before or after meals, or tie between them. I observed it myself that it is more efficient if it can be adjusted for each person (P19).</i>	5	15.6
	<i>It may not be sufficient to have it once a week but it keeps me going (P20). Exercising indoors in winter times makes a lot difference... when we do it in open air, I find it much more efficient for breathing... It is the venue problem unfortunately (P31).</i>		

Table 25 (continued)

Themes	Views	f	%
Problems with the Participants in the Group: P4, P7, P9	<i>I have participated previously in crowded exercises classes... I actually learnt what the Pilates was in our private... small group of 3-4 people... I do not even talk about the other crowded class... I believe it has no value, on the contrary, it can even be dangerous to people like me who have health conditions (P4). It is not about the Pilates but for example people commenting about the others' exercise performances. This is something negative for me (P7). Last year I attended 3-4 crowded classes. I could not get much out from them (P9).</i>	3	9.4
No: P1, P2, P3, P5, P6, P8, P9, P10, P11, P12, P15, P16, P17, P18, P20, P21, P22, P23, P24, P25, P26, P27, P28, P30, P32	<i>I am happy (P1). I like everything about it. I like my instructor even more (P9). I recommend the Pilates persistently to my patients (P11). When we suffer some conditions or problems, our instructor makes us perform the exercises accordingly. There is no movement that forces us ... or we face the risk of injury (P22). I am very satisfied ... so that I try to keep it going for many years (P28).</i>	25	78.1
Total		38	

Table 25 shows that while 10 of the participants brought some issues to the attention that they thought as problematic, 22 of them revealed that there were no any aspects they disliked or found problematic regarding PM. The opinions indicated as problematic issues regarding PM were struggling with certain PM exercises ($f=5$). In addition, according to some views ($f=5$), duration, time, frequency, and venue of the Pilates sessions played unfavorable roles in achieving the objectives of these exercises for the participants. There were also participants who expressed that there were problematic issues regarding the people attending the Pilates sessions ($f=3$).

4.2.22. What Is the Most Interesting Thing that Is Attractive in PM?

The participants were asked regarding the most attractive aspect of PM through regular practicing and their views are given in Figure 15.

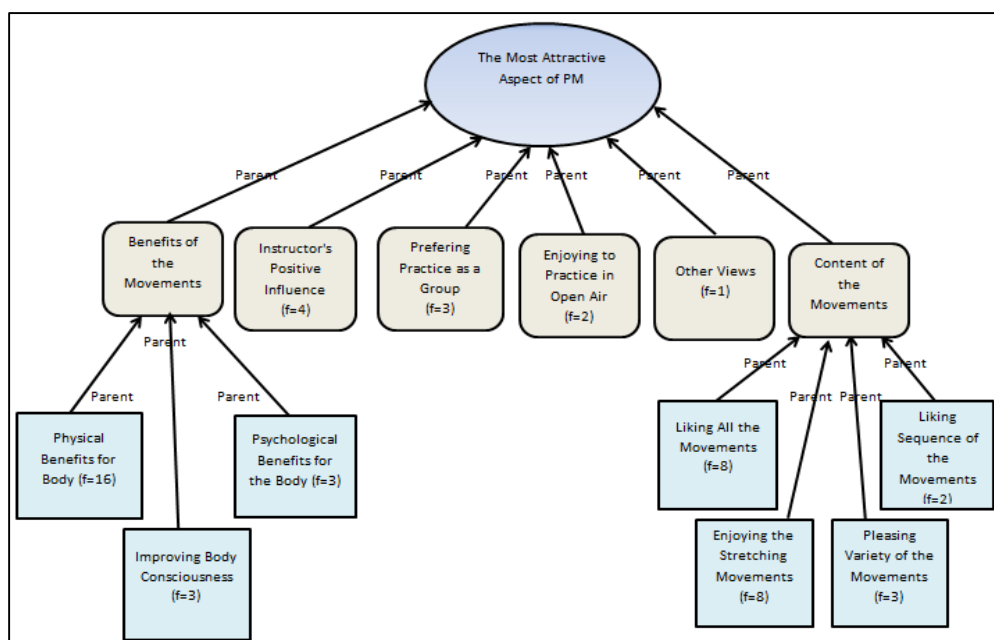


Figure 15 Views on the Most Attractive Aspect of PM

As Figure 15 shows, there was a wide range of views expressed by the participants on the most attractive aspect of PM. They were grouped under the headings of benefits of the movements, content of the movements, instructor's positive attitude, preferring to practice as a group, enjoying to practice in open air, and other view. Frequency distribution of these views is given in Table 26.

Table 26
The Most Attractive Aspect of PM

Themes	Sub-Themes	Views	f	%
Benefits of the Movements	Physical Benefits for the Body: P2, P3, P4, P5, P6, P8, P9, P16, P17, P18, P20, P21, P22, P24, P28, P32	<i>Immediate physical changes increase my motivation (P2). ... My abs were not strong... they got pretty strong... in that respect, I am happy. Once you control your abs, you can control other things as well (P5). Balance... actually it is the muscles working...even the tiniest ones work too... It feels great to see them getting stronger ... I like that very much (P6). It strengthens you, all of your muscles... You can work out every part of your body (P8). Working out all my body, making it more active. While at the same time, toning your muscles, looking fit (P16). I realised that even the unexpectedly simple movements can work out unexpected muscles (P17). I like working out my back muscles for example (P22). ... Flexing my muscles and having a fit looking body (P24).</i>	16	68.75
	Psychological Benefits for the Body: P3, P4, P21	<i>First of all, for my health, then for concentration at work (P3). ... This is the relaxing aspect of it. In other words, it is very relaxing and enjoyable, great (P4). Having a more dynamic body, toned body. At the same, it feels good for my soul (P21).</i>	3	

Table 26 (continued)

Themes	Sub-Themes	Views	f	%
	Improving Body Consciousness: P5, P7, P25	<i>It was useful to learn how to use a certain power (P5). ... improving body consciousness (P7). It teaches to be friend with your body... using it nicely, it improves body consciousness (P25).</i>	3	
Content of the Movements	Liking All the Movements: P1, P11, P12, P15, P18, P19, P23, P28	<i>I like all the movements (P1). ... I like them all as a whole. And ... the movements to stabilise the core... I enjoy practising the movements... I do not struggle in any of them and in particular I take pleasure while practising them as I like them (P11). I like every part of it (P18). The Pilates is the most convenient tool to use the body language right, because it requires little technical support. I am saying this in terms of equipment, it is very efficient. In my opinion, it is the most suitable exercise ergonomically for human beings (P19).</i>	8	65.62
	Enjoying the Stretching Movements: P4, P8, P10, P13, P24, P27, P30, P31	<i>In particular the stretching that we do at the end of the Pilates class is very relaxing. This last part feels like a treat, like a gift to me (P4). It gives you flexibility (P8). Of course, stretching is the best (P10). In the beginning... you warm up a bit, you get tired but once you are doing the stretching, it is over... just like you are in a spa centre... you are in peace as if you sweat and you had your massage done and spiritually ... after half an hour of Pilates, you move on to the stretching and you do not feel anything about your fatigue, I do not remember anything (P13). ... I love stretching movements (P31).</i>	8	
	Pleasant Variety of the Movements: P10, P23, P30	<i>There has always been a constant change... movement... colour in the Pilates (P23). ... The movements we perform with ball make me very happy (P30).</i>	3	
	Liking Sequence of the Movements: P11, P30	<i>... I like starting it after warm up and having the movements more intense as the exercise continues. And relaxation at the end. I like each of them, as parts of the whole (P11). ... Sequence is very good (P30).</i>	2	
Instructor's Positive Influence: P3, P5, P9, P26	<i>... It is very nice because our instructor is so sweet (P5). I like every part of it, in particular the instructor... even more (P9).</i>	4	12.5	
Preferring to Practice as a Group: P3, P12, P19	<i>Being with friends together, practising it as a group with friends (P3). We do the classes in groups... in a synchronised manner... there are certain movements that I like, the ones that I like more, I could do... I enjoy doing them more. I put every effort to do the others. But in a group, following something, catching the synchronisation (P12).</i>	3	9.4	
Enjoying to Practice in Open Air: P28, P31	<i>... We are a lucky bunch, because... at certain times of the year, we have the chance to practise it in nature. Therefore ... we have opportunity to practise the exercises with lots of oxygen and great... The most beautiful thing we do in the exercises is to unify ourselves with the nature anyway. And the Pilates is very suitable for this (P28). It is much better as we can do it in open air... for breathing and for other things... I find it much better (P31).</i>	2	6.25	
Other View: P19	<i>... There are similarities between some physio movements and yoga movements (P19).</i>	1	3.1	
Total			53	

As can be seen in Table 26, the most attractive topics in PM for the participants were grouped under 6 themes. Under the theme of benefits of the movements, the participants expressed the physical benefits ($f=16$) for the body most. Furthermore, psychological benefits for the body ($f=3$) and improving the body consciousness through PM ($f=3$) were also the views emphasized by the participants. Under the theme of content of the movements, the participants also emphasized liking all the movements ($f=8$), enjoying stretching movements ($f=8$), pleasing variety of movements ($f=3$), and liking sequence of movements ($f=2$). The other comments expressed by the participants included positive impact created by the Pilates instructor ($f=4$), preferring to perform PM as a group ($f=3$), enjoying to perform them in open air ($f=2$), and recognizing some similarities between PM and some physio and yoga movements ($f=1$).

4.2.23. If You Were Unable to Practice PM for a Long Time, Would Be There any Physical and Psychological Differences in Your Life?

After experiencing many physical and psychological advantageous, the participants were asked about whether there would be any physical and psychological changes in their lives if they could not practice PM for a long time. Frequency distribution of the views expressed by the participants are presented in Table 27.

Table 27
Physical and Psychological Changes in Case of Not Practicing PM

Themes	Sub-themes	Views	f	%
Negative Physical Effects	Negative Impact on Daily Activities : P10, P12, P13, P14, P18, P21, P26, P29	<i>It would make too much difference. The way I sit on the couch and get up... getting in and out of the car... my posture while walking on the street, they all changed (P10). Of course, it would, I had serious problems with my lower back lately, I did something very wrong and I had to stop the Pilates for a while. Now I practice the movements with some caution... Then I can lift things more confidently or run more confidently... (P12). It definitely would. I had snapped muscle fibres while playing volleyball. I was coming back from playing volleyball with a problem every week (P14).</i>	8	25

Table 27 (continued)

Themes	Sub-themes	Views	f	%
	Deterioration in Body Form: P1, P8, P9, P23, P27, P32	<i>I would have a soft body (P1). I would be slack physically... (P8). I would be soft (P9). ... Absolutely, there would be an impact... Because my body does not like inactivity (P23).</i>	6	18.75
	Posture Disorder: P1, P5, P10, P22, P24	<i>I would really have posture disorder and... in future, I believe I will see its benefits a lot (P5). It would make so much difference... even my body posture while walking on the street changed (P10). I had physio since I had scoliosis, I had other problems too. I need to do them until the end of my life (P22).</i>	5	15.6
	Pain: P1, P5, P9, P28	<i>I would have pain... I am sure (P1). My pain would be much worse (P5). ... If I did not practice, my pain would get worse due to delayed onset muscle soreness (P9). ... I had so much pain, I had to stop, my pain was indescribable (P28).</i>	4	12.5
	Physical Problems: P2, P7, P27, P31	<i>... Problems stemming from my disability would be much more (P7). It definitely would, as I do not practice other forms of exercise. I had problems in walking... serious problems, I had pain in my knee and neck, I could not move them around, I have always had pain in my shoulders. As they have gone away, I believe the Pilates definitely had benefits for me (P27). Yes, and it did ... once I experienced problems with my arm, I could not practice for two months... this feeling of not being able to open stresses me (P31).</i>	4	12.5
	Physically a Monotonous Daily Life: P7, P20, P30	<i>... It would have created a vacuum (P7). ... I had some exercises to do, but I started to ignore them. But after the Pilates, I practice them too (P20). ... There is too much action in summer time, but in winter ... things could be monotonous without the Pilates... You cannot do much other than walking in cold weather. For that reason,... I would feel its absence much more without the Pilates (P30).</i>	3	9.4
	Other Views: P6, P11, P15	<i>... In the end, I would not know this, I mean having such a power, being able to do such things (P6). ... Especially in the last 5-6 years... I wanted to give more importance to exercise as I was coming close to the age of menopause, that is why the Pilates was important for me. And thanks to the Pilates... I could comfortably get over my transition to menopause. Both ... mentally... and physically (P11). I accept the Pilates as a philosophy in general... We can call this philosophy of having a positive to life and various things...this is what I have observed. The Pilates is a great education process...I cannot think about a life without the Pilates now (P15).</i>	3	9.4

Table 27 (continued)

Themes	Sub-themes	Views	f	%
Negative Psychological Effects	Negative Impact Without Comments: P2, P5, P7, P9, P11, P13, P15, P21, P31	... it would, but I do not know to what extent (P2). Absolutely (Yes) (P5). It may have had to a certain extent (P7). ... In my opinion it would have negative impact, yes (P15).	9	28.1
	Unhappiness: P4, P7, P10, P12, P14, P18, P19, P22, P23, P27, P28, P29, P30, P32	... I have wanted to practice it for quite a while. Not being able to do something I want to makes me unhappy... I feel that my body is getting softer, this makes me unhappy too (P14). ... I cannot tell that I would be happy, because I feel very happy after I practice it (P18). After knowing that something like the Pilates exists, I would of course be unhappy if I was deprived of it (P23).	14	43.75
	Lack of Self-Confidence: P6, P9, P20	... I cannot do much physically... I cannot do them. That is my view but for many years, I relaxed after seeing that I could do something like this (P6). ... I think not being able to practice would have detrimental effect on self-confidence (P9). ... I could have less self-confidence (P20).	3	9.4
	Pessimism/Depression: P8, P16, P20	... You get more depressed when you cannot do anything for yourself (P8). ... I would be more pessimistic if I could not do it... mentally... emotionally... physically (P16). .. Pessimistic, but they are all in insignificant amounts, I should add (P20).	3	9.4
	Other Views: P1, P25	It would, I could blame myself for not doing it, for not making exercise a part of my life (P1). ... I would be more stressed (P25).	2	6.25
	Would Not Have Any Negative Psychological Effect: P24, P26	I do not think so. (P24) It would have much impact. I am a kind of person who can keep myself psychologically, emotionally stable (P26).	2	6.25
	Do Not Know: P3	I do not know that (P3).	1	3.1
Total			67	

Potential physical and psychological negative effects on the lives of participants in case of not being able to practice PM for a long time are summarised in Table 27. Among those views, negative physical effects were composed of various themes. That possibility would have a negative impact on their daily movements ($f=8$), and would lead to being out of shape ($f=6$). Furthermore, they also indicated that their postures would not get better ($f=5$), they would suffer from pain ($f=4$), and their physical problems would continue ($f=4$). In addition, there were participants who revealed that inactivity would make their lives physically monotonous ($f=3$). Moreover, three participants expressed other views that included possibility of

lack of power, inability to overcome period of transition to menopause easily, and not behaving positively toward issues related with life and various things.

Besides probable negative physical effects, potential negative psychological effects were grouped under five themes. They were respectively: feeling of unhappiness ($f=14$), lack of self-confidence ($f=3$), and pessimism/depression ($f=3$). Moreover, two participants expressed their thoughts under the theme of other views that were stated as not making exercise a part of her life, and being more stressed. In addition to these views, there were participants who expressed that not practicing PM for a long time would impose negative effects on their psychologies, but they did not elaborate on the reasons ($f=9$). Additionally, while two of the participants thought that there would not be any negative psychological effects, one participant stated that she did not know what happened in this respect.

4.2.24. Do You Think to Continue Practicing PM?

Finally, the participants were asked if they would continue to practice PM forward in time. In this context, all the participants stated that they would like to continue practicing it.

CHAPTER 5

DISCUSSION

In the discussion part, demographic information and data from the findings part are interpreted and discussed with knowledge from literature.

5.1. Demographic Information

Individuals who have a rise in level of education, especially an increase in level of individualization and consciousness, are able to choose one action to another, to be able to evaluate possibilities for a better life. According to Van Tuyckom & Scheerder (2010), the field of sport remains as a symbolic contention between the social classes or positions. Commonly, people who are poorest in cultural capital- low socioeconomic level, low level of education, low level of income- are least likely to actively participate in sport. Bunke et al. (2011) expressed the purpose of exercising for people in advanced societies that had high level of education and welfare devoted more time to physical exercises and sports activities due to influence of several factors such as suitability of the working conditions, high income, and health awareness. In like manner, it was noted that at the end of the 19th century, the first people played baseball in Japan were male college students or graduates, who were members of the club, could buy materials and pay the fee (Kiku, 2006, cited in Yüksel, 2015). Similarly, academically well-educated participants of this study received private tuition in order to perform Pilates classes, therefore they paid for each Pilates class. Economical terms made them possible to afford those classes.

High educational level of the participants in this study might have made them being aware of the possible health and social benefits of PM that influenced them to choose practicing it. Contrary, the study conducted by Yüksel (2015) showed that primary and high school graduates were participated in physical exercises more than bachelor's degree. It was observed that as the education level increased, the interest reduced toward some exercises like swimming, walking, fitness, step-aerobics, football, volleyball, basketball, and jogging. On the other hand, more desire was seen on more technical, complicated, coordination needed, and equipment necessary physical exercises like martial arts, horse riding, skiing, tennis, cycling, archery, shooting, climbing, table tennis, parasailing, and scuba diving.

Although the women considered PM as their main form of exercise, 87.5% of the women engaged in various types of exercises, as well. This additional exercise could have played a role and contributed to the changes the women experienced through PM. High participation rate in previous physical exercises and sports participation (n=28) might be effective for those to keep and contribute practicing PM exercises. The findings of the study by Görücü (2006) are parallel that the undergraduates who had sport education in a specific sport branch in the past seemed to participate in active sport more. Those individuals were observed to be interested in that specific sport branch actively when they were undergraduate.

The high percentage of participants (87.5%) who used to do regular exercise previously may reveal that those participants perceived physical exercising as a crucial free time activity. The fact that most of the participants preferred to do physical exercises and sports in their free time showed that exercising was a settled habit. On the other hand, results of Öpözlü et al. (2006) indicated that most of the 1060 (767 males and 293 females) participants occasionally took part in physical exercises and sport and their interests toward those activities were reported as 17.5% regularly, 6% often, 4.4% active athlete, 57.6 % sometimes, and 14.4% never.

In the present study, more than half of the women (56.25%) chose walking as their main exercise type similar to the participants (35.9%) in research by Öpözlü et al.

(2006). It might be because walking is easy to perform outside and inside (on treadmill), does not necessitate complicated equipment and coordination ability.

5.2. Discussion of Interview Questions

5.2.1. The Experience with PM

5.2.1.1. Reasons for Deciding to Start Practicing PM

Until today, researchers related to physical exercises and sports participation have examined many motivational factors. The trend towards taking part in physical exercises and sports indicates a crucial need to reveal the motivations affecting people to attract more attention in society. It may be common for both men and women to keep up with the fashions in various areas of life. The activities, proven to be effective in the field of physical exercising and sports, can continuously be renewed and be fashionable in this context. Especially women adopt this aspect of PM. The general public has the perception that the reasons for women to participate in PM might be having an ideal type of body with low fat ratio, and slim appearance with an upright stance or posture. In addition, it may be another motivation to attain a body that remedied of the physical asymmetries, and reduced or completely healed pain. According to Yüksel (2014), gender that has been built in the historical period guides women to the sports that put more emphasis on their bodies. Fit and good body image come into prominence for women to take part in those sport activities like hiking, fitness, step-aerobics, Pilates, volleyball and gymnastics.

The activities related to physical exercises and sports are important for individuals in order to be healthy, get self-recognition, be aware of their skills and competencies, and realize their potential fully. The reasons for people to participate in various forms of physical exercises and sports could be mainly taking advantages on physical health such as physical condition, weight loss, and body aesthetics; psychological health like getting rid of stress, depression, and anxiety, staying calm, and feeling happy; self-identify of improving self

awareness, self-confidence, self-esteem, and social ties such as having sense of belonging a group and communication.

One of the studies to reflect these aspects was conducted by Özesen (2007) that analyzed motivational factors of individuals as consumers who were involved in a daily rafting trip as an outdoor and recreational sport. Results of the study indicated the motivational factors as psychological wellbeing needs, sport based needs, physical fitness needs, and social well being needs. Although rafting was a daily activity, motivational factors were similar to present study. It might result from considering both daily and routine regular exercises as recreational activities as well as considering their short term and long term benefits.

In a similar context, Südaş (2015) studied on motivational factors for sport participation via questionnaire in participants (n=421) involved in different sports were customers of a famous sport equipment retailer in a shopping mall. According the results, having fun was the most important reason for participation in most of the sports. Attaining physical fitness was a crucial motivation for fitness participants. Motivation of achievement was the most important factor for participants doing Muay Thai. Also, the reasons to practice PM were more than other sports that were achievement, self-actualization, self-esteem, value development, stress release, affiliation, fun, physical fitness, and social facilitation. In another research, Wann et al. (2008) presented the sport type differences in various motives with 886 participants. The reasons for many people to be involved in different sports were mostly associated with the perception of entertainment and eustress motivations.

A study with elite athletes by Sunay & Saracaloğlu (2003) also revealed the reasons of licensed athletes in Turkey for participation in professional sports. It was noted that those participants anticipated to be healthy and maintain health, to have a fit appearance, and to be selected to the national team related with their professional sports. Research finding by Şimşek (2012) also points towards comparison the sports consumption factors of the Turkish athletes (n=1574) who took part in different individual extreme sports activities. The results showed the most important extreme sports consumption factors as socialization, values,

excitement and adventure-seeking, physical fitness, stress reduction, perceived satisfaction, perceived value, and behavioral intentions.

In another study, Yüksel (2014) investigated the rate of doing sports, the preferred sports that were desired, and the aims of doing sports that differ in relation to sex. The data were collected through a questionnaire in 570 participants (303 men and 267 women). According to the results, men do sport for the aim of having fun, making new friends, feeling of belonging to a group, and gaining money and respect. On the other hand, women prefer taking part in sport activities to delay aging, to be psychologically and physically healthy, and to lose weight.

Women's sport participation resulting from cultural differences in Turkey was expressed by Fasting & Printer (1999, 76-85, cited in Yüksel, 2014), as well. The factors such as social status, place of residence, family relationships, the importance of school performance, considering the sport as a male-specific activity, hardness of working conditions, the importance of family, not considering the sports as recreation by women, and perception of beauty and veiling were observed to impact women's sport participation negatively.

When the educational level increases, the aim for having a formed body enhances (Yüksel, 2014; Yüksel, 2015). In terms of examining the relationship between educational level and reasons to do sports, Yüksel (2015) expressed that it was apparent and held a great importance in all levels of education level to be fit, healthy, and happy, and to relieve stress. It was observed that doing sports for the aims of losing weight and having fun are important in all educational levels.

A study carried out by Öpözlü et al. (2006) showed that 62% of 1060 participants (767 males and 293 females) prefer recreational activities to protect their health. Another study reflected that most of the 400 participants (300 females and 100 males, ages of 26-35, education level primary and secondary school) take part in walking, step and aerobics activities to maintain health (67%), and some of them (29%) prefer them to lose weight (Göral, 2006).

It is believed that there is a relationship between preference for doing sport to maintain health and income level. The study, which was performed by Görücü

(2006) with 234 students of physical education and sports department to determine motivations, showed some similarities with the results of the present study that doing sports for the purpose of maintaining the health was in the first place. Also, the findings showed relationship between economic condition and specific education on the students' professional sport. There was a relationship between high income and participating in sport activities actively. As Kotan et al. (2009) stated the ratio of participation in sport activities at school increases in proportion to the family income. In the present study all the participants had enough income to conduct the private Pilates classes by paying.

Attaining to proper posture is crucial both functionally and aesthetically. In order to fulfill and maintain daily tasks, it is optimal to use the body with its full functionality. Posture and flexibility, which are claims of PM (de Souza & Vieira, 2006; Pilates & Miller, 1998), 34% of the participants thought that postural health was a vital motivation to perform PM in the present study. In terms of individual goals, this theme is supported by de Souza & Vieira (2006) who expressed the importance of posture to be improved as the most desirable one (38.8 %). Furthermore, Petracovschi (2014) carried out a study to analyze the type of motivation of Yoga and Pilates practitioners whom objectives were toning the muscles, correcting the posture, and providing intrinsic knowledge.

Desire to get in a shape was one of the motivations for 12.5 % of the participants in the present study. This is supported by study Göral (2006) who evaluated reasons for adults to participate in physical exercises and their point of view regarding exercising. 300 women and 100 men participants, ages of 26-35, explained their motivations to exercise as living healthier (67%), and losing weight (29%). In addition, De Souza & Vieira (2006) described 327 PM participants' (266 females and 61 males) characteristics, their goals and the prevalence and intensity of musculoskeletal pain among them. Subjects' assessments were performed over a specified 1 year and 10 months period. The results reveal that the majority of Pilates clients are middle-aged women (the mean age of 42 years old) who did not participate regularly in other exercise activities and who had some complaint of musculoskeletal pain. Despite high pain prevalence, only about one quarter of the sample sought the PM specifically for rehabilitation.

The claims of PM for body-mind conditioning and providing a positive movement experience may reinforce the attraction of participants to anticipate psychological wellbeing. In the present study, a small percentage of the participants (12.5%) considered as a motivation for starting to practice to PM psychological wellbeing issues. In study of de Souza & Vieira (2006), most of the participants did not consider PM as a means of psychological wellbeing technique. It was stated that it could be an indication that psychological contributions were not clear or known enough. Only 24% of the sample described rehabilitation as a primary reason for practicing Pilates exercises, although 73% reported some musculoskeletal pain or disorder. PM might be considered as a kind of remedy to relieve the musculoskeletal pain.

In this study, some of the participants (28.1%) acknowledged the PM exercises as a suitable physical exercise type for themselves in point of not being very tiring and being friendly with body. P25 stated that *“I wanted to do sports that would be friendly with my body.”* Moreover, regarding its fame all around the world and Turkey with an increasing attention, P32 said that *“as I love sports, also in that period Pilates had become popular and prevalent, I started.”* In study by Leung et al. (2008a), almost all respondents expressed that there were few health barriers to practice MBTs because of their simple, non-strenuous, i.e. low-impact, and relaxing quality movements.

Participants of the present study mentioned preferring to exercise in a group as one of the motivations to start practicing PM ($f=7$). Opinion of Participant 2 in this respect was as follows:

There can be difficulties to continue and provide more motivation when you are alone. When you are alone, you can say that I will not do this time. Therefore, in order to keep this motivation, this determination, my boss had influence; we decided to do together.

In this regard, Wankel et al. (1985) revealed the factors underlying sport enjoyment among 822 youth sport participants from the three sports, soccer ($n=330$), baseball ($n=176$), and hockey ($n=343$). The social factors of being on a team and being with friends rated as having an intermediate importance.

One of the participants explained her motivation under the theme of other views to start practicing PM as practical location of the Pilates course within easy reach. Participants in study by Leung et al. (2008a) also mentioned their reasons to participate in MBTs as a complementary and/or alternative physical activity. This theme focused on logistical issues such as greater access, lower cost and fewer barriers to MBT than conventional exercise.

5.2.1.2. Factors Having an Effect on Starting to Practice PM

Culture industry recommends people to take part in some hobbies like crafts, and Pilates or yoga under the name of healthy life, and encourages them for a new and optimizing life (Birsen & Öztürk, 2011). Both intrinsic and extrinsic motivations are effective in making the decision to start different physical exercises and sport activities.

Exercising may help individuals to attain self-discipline and overcome psychological and physiological problems that they face. Presently, approach of the media to the sport, efforts of people to get rid of stress, and will keep fitness level high have become quite significant in the daily life and at the moral level of the community (Sunay & Saracaloğlu, 2003).

Friends from their milieu were the most influential factor ($f=15$) in making participants start practicing PM. Some of the expressed opinions by participants were as follows:

I started practicing the Pilates exercises 15 years ago, I had heard it from a friend of mine. I said fine, I should give it a try and that is how I started (P16).

I was influenced mostly by the material I read, but when my friends asked me to do it also had a big role (P17).

Actually I was hearing about the Pilates a lot while I was watching it on TV, but my friend as my doctor also directed me for the pain in my back (P27).

My best friends were doing it, that is how I started this year and I enjoyed it a lot (P30).

The participants also stated that their colleagues particularly influenced their decision ($f=9$) for the idea of practicing PM in small groups with colleagues and friends. The views of the some participants were introduced as:

My boss... had an impact. Because this is something you do together; there may be problems in doing this alone, or being able to sustain its continuity, having the motivation for it. If someone is left alone with herself, than one may consider skipping it this time. Therefore, my boss had a role to play in having this motivation, continue this resolve, we decided to do it together (P2).

My friends were doing it five years ago after I gave a birth. I really liked the idea in the beginning, I told myself I should give it a try, I liked it very much (P8).

We started the Pilates as a participant to a study for the thesis of a physiotherapist, colleague of mine from the hospital (P11).

We decided to do it together with my colleagues. Therefore, it was something we all started together and in years, we tried to continue this sports with colleagues (P28).

In addition to these, media reports regarding the benefits of PM affected participants' decisions to take part in PM ($f=7$) in the present study. Some of their opinions were explained as stated below:

I was not feeling that my body was fit enough, some movements were really pushing me, my balance was not good. I was reading, hearing, seeing the benefits of the Pilates on these and I decided to start (P6).

I was interested in Yoga first. I read a lot about the Pilates. It turned out to be exactly what I hope (P17).

Moreover, the Pilates instructors that the participants met ($f=7$) put an impact on them to practice it. Thoughts of the participants in this subject were expressed as:

I have herniated discs in my back, I was very careful about my herniated discs, I was actually very scared of doing such things. When my friends said that the instructor was very knowledgeable and very careful on such matters, I trusted them and that is how I started (P4).

Our instructor is very sweet, and she gives us confidence so much (smiles), but it is really important who you are working with. It is very important that the instructor can give that confidence, this has become particularly important for me especially after the injuries (P7).

The Pilates instructor encouraged me first of all. With her positive energy, I believed that I could do this and I have tried to continue with her for many years (P28).

As well as the influences of the friends, colleagues, media, and the Pilates instructor, the participants stated their family members ($f=5$) as another influential factor on their decision to start PM. The statements of the some participants in this manner were as follows:

My sister started the Pilates first from the family. Then they started doing it with my mother. After hearing its benefits from them, I decided to do it as well (P6).

I decided to do the Pilates upon the encouragement from the young people in my family, and then I got addicted to it (P18).

My daughter in particular encouraged me a lot by saying that I should do the Pilates for coordination and mental health, for everything (P30).

Furthermore, there were also participants who started practicing PM with their own decision ($f=5$) without being influenced by other factors. A few of these expressions are given below:

Sports was not part of my life actually, it just did not exist. I got registered to a sports club but then I thought the Pilates suited me better... (Doing) the Pilates was my choice (P5).

As I was not doing any sports, I found the Pilates suited me the most, otherwise there was no influence (P9).

I decided on my own... maybe I started doing this unconsciously from what I have read, what I have seen, or by guessing from what I learnt from outside" (P14).

The study conducted by Sunay & Saracaloğlu (2003) reached conclusions that supported the findings of the present study. They designated the causes of reduction in number of the athletes who compete in sport branches except football in Turkey. The participants were 451 licensed athletes of 15 sports, were mostly affected by their families, sports trainers, and milieu on sports routing. On the other hand, the impact of media on sports routing was a fairly low level. Similarly, Kotan et al. (2009) presented the effects of school and family on sporting activities of 500 students at primary schools through a descriptive survey model. According to the results, primary school students were encouraged and affected more to participate in physical activities and sports by their families that had members who were taking part in physical activities when compared other families that were not interested in those activities.

One of the ways to become conscious regarding health related topics is via media. There has been an increase in number of the publications regarding theme of health in media through news bulletins, health programs, newspapers, magazines, articles, and websites in the internet (Sezgin 2011). According to Birsen & Öztürk (2011) advertisements and magazine news of the media, call for its readers a cultural exchange implicitly. Mass media that plays an important role in transformation of health perception has become the first step to form individuals' attitudes and behaviors (Atilla & İşler, 2015).

Exercise recommendations for a healthy life style have been increasing as an alternative to sedentary life, irregular and unhealthy nutrition, stress and tension of modern life (Sezgin, 2011). The media constructs an image of beauty and aesthetics through ideal body perception. Consumption is being encouraged as the

way to reach ideal body image in the media's health coverage (Birsen & Öztürk, 2011). The study conducted by Atilla & İşler (2015) aimed to draw an attention to case studies and presentation of health as an object of consumption created by the mass media tools. When the findings examined, it can be seen that women are supposed to be well-educated, knowledgeable, and health-conscious, love to research regarding health issues through mass communication tools, are interested in sports, generally make positive lifestyle choices, buy alternative health products, and are conscious individuals regarding 'non-natural' ingredients. Öpözlü et al. (2006) claims that the motivation for people to participate in physical activities and sport might be related with the programs regarding health on TV and printed media. Every newspaper serves health issues to make people conscious of health problems and treatment approaches. It is very often to meet sport phenomenon for health in programs of written and visual media.

5.2.2. Health Problems Before Starting PM

Some physical and systemic problems could be experienced by people who are about to start physical exercises, or used to participate in physical exercises off and on, or have never practiced any physical activity before. The most commonly encountered injuries are in the back, and neck joints, as well as the wrist, shoulder, and knee joints. Also, the systemic diseases especially cardiovascular diseases, high blood pressure, diabetes, arthritis, and cancer, which could occur depending on age, genetic, and lifestyle, can be mentioned.

The findings of the present study are in agreement in some way with the sample described by de Souza & Vieira (2006) who explained participants' (266 females and 61 males) characteristics and their motivations for conducting PM. The most frequently affected anatomical sites of pain among those participants were respectively lumbar spine, cervical spine and knee joint.

On the same issue, Vuletić et al. (2013) determined the prevalence of musculoskeletal disorders in dentists (57 female and 32 male) with different work experience. Musculoskeletal disorders were detected in 62 dentists (69.7%) while 49 dentists (77.8%) reported increasing pain during the day. Of the total

respondents, 76.2% had pain in neck, 71.4% reported discomfort in the upper part of their back, 68.3% in the region of shoulder, and 65.1% complained for pain in lower back. Lower prevalence of pain was found in the region of wrists and hands, hips, knees, ankles and elbows. It was stated that main body and shoulder muscles are designed to provide solid and stable base for arm movements. PM is an exercise program for strengthening of these muscles that it may contribute musculoskeletal health of dentists. Also, Leveille et al. (2005) investigated the prevalence of pain locations among 682 women and 380 men participants age of 72 years and older. The participants were asked to identify pain locations that were categorized as back pain, and upper and lower extremity pain with bilaterality. In addition, the responses showed that pain was associated with fair or poor self-rated health, history of back pain, and disability, body mass index, systolic blood pressure, depressive symptoms, and osteoarthritis. It was noted that musculoskeletal pain was more prevalent and more widespread in older women than older men, as well.

In another study, Härtel & Volger (2004) conducted a cross-sectional survey of a nationally representative sample of men and women aged 18 to 69 years. A standardized self-administered questionnaire that included questions on 21 different healing methods, on personal reasons for use, on individual attitudes to natural therapies, and on the socioeconomic background was implemented. According to the results, the most frequently reported health problems for which natural therapies had been applied were back pain (57%), cold (29%), headaches (19%), strain (15%) and gastrointestinal ailments (12%).

As well as the physical health problems, individuals may face with some psychological issues in some periods of lifetime. Besides the professional life that covers a significant period of people's lives, the private and social lives cause several adverse situations, which result in some psychological problems. As each individual's attitudes and reactions are different in the face of events, their effects on the mind and the body are various, too. Some of the psychological problems that people often experience are mental stress, depression, anxiety disorders, self-confidence, and inability to express oneself.

5.2.3. Physical and Psychological Changes After Practicing PM

5.2.3.1. Physical Changes

Participants in the present study stated many improvements by virtue of practicing regular PM in their physical and psychological parameters. In order to clarify those improvements, this section elaborates the impact of PM on participants' perceptions of body pain that are related with joints, headache, and fibromyalgia. It continues by looking at studies focusing on effects of various types physical exercises and PM on pain in joints. It then focuses at notion of headache and the studies demonstrating the positive impact of regular physical exercising and Pilates exercises on headache. Later, it briefly informs regarding the concept of fibromyalgia syndrome and introduces the studies on the relationship between different physical exercises programs and PM for alleviate fibromyalgia syndrome. Ultimately, some of the stated health benefits of the participants attained through practicing PM on strengthening the muscles, improvement in posture, change for the better form of body, increase in flexibility, and transition to menopause are declared sequentially.

There are some changes that come into existence during the lifelong due to aging, accidents, and diseases in the musculoskeletal system are unavoidable like pain in joints and muscles, postural deformities, loss of strength, sarcopenia, and loss of balance (Smith & Smith, 2005). In addition, although technology is an advantage to comfort life conditions, it is a disadvantage to reduce the percentage of using body effectively and to conduct physically inactive life style, therefore some complaints arise regarding musculoskeletal and systemic disorders.

Some of these changes and disorders can be coped with and handled through participation in regular physical exercises that improves cardio-vascular system, muscular endurance, balancing ability (de la Cerda et al., 2011), respiration, range of motion, muscle strength, kinesthetic or movement awareness, and postural symmetry (Alpözgen, 2013).

In a similar way, numerous positive physical changes can be observed in people who practice PM regularly. Many studies showed beneficial effects of PM that claim to improve core stability, spinal and joint mobility, static and dynamic balance, coordination, muscle tone, flexibility and posture by strengthening core and limbs to be helpful for enhancing performance in healthy people, and in patients with musculoskeletal diseases (Anderson & Spector, 2000; Appell et al., 2012; Bernardo, 2007; Hutchinson et al., 1998; Jago et al., 2006; Johnson et al., 2007; Segal et al., 2004; Sekendiz et al., 2007; Smith & Smith, 2005). When the abdomen, lower and upper back, and hip muscles strengthen, some improvements may be experienced especially in reduction of pain and increment in mobility of joints. In addition, flexibility enhances, and amelioration is observed in poor postures of scoliosis, kyphosis and lordosis. Moreover, body fat ratio reduces, muscle mass increases, load on the joints lowers, and a healthier appearance is attained. Furthermore, body awareness improves through controlling the body consciously.

One of the mostly stated benefits provided by practicing regular PM that participants experienced in the present study was alleviation in body pain. According to Roy et al. (2009), pain is supposed to be alleviated by various mechanisms, including cerebral and spinal modulation of pain by emotions and increased production of the brain hormone endorphin once a person takes part in enjoyable activities like taking a bath, being interested in a hobby, or having a favorite food.

Parallel to contributions of physical exercises on management of pain, increased pain threshold and muscle strength values, and reduced pain intensity (Akyol et al., 2016), ischemic pain tolerance (Jones et al., 2014), and long-term benefit for chronic pain patients (Kabat-Zinn et al., 1986), PM also offers decrease in pain for different conditions like during pregnancy, musculoskeletal problems, headache, and fibromyalgia. For instance, Aktan (2015) demonstrated beneficial impact of PM on pain in pregnant women who underwent clinical Pilates exercises and received childbirth education felt less pain, got less weight and better postpartum anxiety situation. Also, comparison of the effectiveness of a 10-week, once a week, 90 minutes Pilates and aquafitness trainings revealed reduction of pain in

joints and spine in elderly women (Boguszewski et al., 2012). Moreover, practicing an 8-week, three times weekly Pilates based exercises have been declared as effective as traditional approach on reducing shoulder pain in participants with breast cancer (Alpözgen, 2013).

The main result from the present study is that PM has positive effects on physical health variables. The previous physical problems (93.75%) stated by the participants were mostly on muscle and joints problems, especially the pain, posture disorders and herniated neck and back. However, practicing the Pilates method regularly for a period of time - at least 8 months to maximum 17 years, once, twice, three times or more- led to positive physical improvements. Amelioration in painful joints ($f=47$) especially in lower and upper back ($f=21$) was mostly expressed by the participants as a consequence of exercising through PM.

Back pain causes loss of performance for daily activities, avoidance from more exercise, and decrease in functional capacity (Hurri et al., 1991; Nielens H. & Plaghki, 2001; Wittink et al., 2000a; Wittink et al., 2000b). The lumbar spine is responsible from supporting the upper body by transmitting compressive and shearing forces to the lower body during the performance of everyday activities. Assuring mechanical stability of the spinal system is crucial to enable the successful transmission of these forces (Cholewicki & McGill, 1996).

There is a vicious cycle between pain and deconditioning that follow each other, stem from the presence of chronic low back pain (van der Velde & Mierau, 2000). Back pain is mostly resulted from pushing the abdominal muscles away from the back, leaving little support for the muscles of the spine (Siler, 2000). PM, demonstrates positive effects on improvement of general function and reduction in pain by providing support for lower back muscles (La Touche et al., 2008), utilizes principles of various accepted rehabilitation methods that have scientific support for low back pain, including core strengthening. This is important since core weakness has been increasingly recognized as a biomechanical deficit in patients with low back pain (Sorosky et al 2008).

Low back pain has been associated with dysfunction and weakness of deep abdominal muscles that include the transversus abdominis, multifidus, and pelvic-floor muscles are referred as the core muscles (da Fonseca et al., 2009). The abdominal muscles decrease the effect of destructive load on the spine and ensure postural stability. In order to manage the pain along the spine exercising those muscles is crucial. In this respect, PM is promoted to be useful to care for patients with chronic low back pain and deconditioning (Blum, 2002).

There is a functional interaction between TrA, diaphragm and pelvic floor muscles, so this feature should be considered during performing the exercises in a Pilates series (Hodges, 1999). PM, so, is theorized to assist in the re-activation of these muscles, increases the support of the lower back, and reduces pain and disability (La Touche et al., 2008). In this respect, Herrington & Davies (2005) indicated better transversus abdominis isolation and lumbo-pelvic stability in asymptomatic participants who performed PM for a minimum of 25 classes in 6 months when compared with participants who practiced regular abdominal curl exercises, or no abdominal muscle exercises. Moreover, in a randomized clinical trial a 24 biweekly 1-h sessions Pilates exercise program and a pelvic floor muscle-training (PFMT) provided similar improvements in pelvic muscle strength in 62 women (Culligan et al., 2010).

There have been many studies on positive effects of PM on healing of discomfort and pain along vertebrae. According to Korkmaz (2010) Pilates exercises possible to have a role in relieving the tendency to chronic axial musculoskeletal pain caused by spinal instability. Since, PM includes closed kinetic-chain exercises that could provide the compressive and decompressive forces necessary to foster nutrition to joints and cartilage to reduce degenerative risk. For example, attaining 15 sessions of PM resulted patients with low back pain were able to use strategies to reduce the amount of force imposed on their body, to improve weight discharge in gait and to reduce pain. The mechanism for the improvement of weight discharge is believed to be through enhanced stability of the lumbar-spine segments and pain relief (da Fonseca et al., 2009).

The most remarkable effect of PM relieved pain, specifically in the neck and back joints in the present study was parallel with the result of a case study conducted by Blum (2002) who demonstrated the positive effect of usage of Pilates therapy and sacro-occipital technique in treatment of a 39-year-old woman with scoliosis. Similarly, in the present study, there were two participants (P22-56 years old & P27-62 years old) who had similar anatomical condition of scoliosis and also rotated vertebrae in low back. They also stated increased mobility and decreased level of pain as practicing the Pilates method for 3.5 and 2 years, sequentially. The similar results of study by Blum and the present study seem to stem from centering principle of PM that necessitates to strengthen especially the transversus abdominus, internal and external obliques, multifidus and erector spinae muscles mostly responsible from rotation of vertebrae.

Efficacy of Pilates-based exercises on chronic non-specific low back pain was also examined by Miyamoto et al. (2011) who presented a study protocol in 86 patients ages between 18 and 60. They allocated into 2 treatment groups: the Booklet Group, received a booklet with postural orientations, and the Pilates Group that also received the same booklet. It was concluded that the general and specific functional capacities of the patients, kinesiophobia, pain intensity, and the global perceived effect showed more evident improvement of symptoms in Pilates Group.

One of the Pilates-evolved programs, Pilates CovaTech, and Back School techniques were compared by Donzelli et al. (2006) in rehabilitation treatment of low back pain in a randomized controlled trial with 43 patients for more than three months. While a significant reduction in pain intensity and disability were observed in all participants, the Pilates CovaTech group showed better compliance and subjective response to treatment through the evaluations at the beginning of the study, then at the 1, 3 and 6th months.

A randomized controlled trial, pretest-posttest design, with a 3, 6, and 12 month follow-up in 39 physically active subjects with chronic LBP, Rydeard et al. (2006) concluded that PM and neuromuscular control mechanisms were efficacious in decreasing LBP and disability. In another randomized controlled trial by Natour et al. (2015) assessed the effectiveness of PM in sixty patients with chronic non-

specific low back pain (LBP) who were randomly assigned to one of two groups: Experimental Group (EG) that maintained medication treatment with use of NSAID (nonsteroidal anti-inflammatory drug) and underwent treatment with PM and Control Group (CG) that just continued medication treatment with use of NSAID and did not undergo any other intervention. The results showed that PM was better than no exercises for functional capacity, pain, and vitality for patients with chronic non-specific low back pain, and had no harmful effects on them.

Whether practicing modified PM program once a week for 6 weeks effective on chronic non-specific low back pain was examined by Gladwell et al. (2006) in 49 active individuals of 25 for Pilates group and 24 for control group. At the end of the evaluation, improvements were seen on the behalf Pilates group with an increase in flexibility and proprioception, and a decrease in pain and betterment of sports functioning. It was recommended that a program of modified Pilates exercises might be beneficial for back pain as it uses functional static-dynamic resistance exercise to aid core muscle strengthening and endurance and to improve sensory motor control of the trunk and additional limb movement. Contrary, in the present study, the participants (n=8) who had recovery in their low back pain had been practicing PM for twice a week (n=7) and one participant eight times a week. However, the participants who practiced once a week did not mention about previous low back pain. These two studies show that PM is effective in reduction of back pain when practiced at least once a week.

Impact of PM on non-specific low back pain was investigated through systematic reviews by some authors, as well. In this manner, Aladro-Gonzalvo et al. (2013) suggested that Pilates based therapeutic exercise was moderately superior to minimal intervention for pain relief and confers similar benefits when compared with pooled scores to another physiotherapeutic treatment. With the same objective, Lim et al. (2011) conducted another systematic review with meta-analysis concluded that Pilates-based exercises were superior to minimal intervention for reduction of pain in individuals with nonspecific low back pain. However, those exercises were no more effective than other forms of exercise to reduce pain and disability.

Possible effect of PM on chronic back low back pain was conducted with comparison of mat Pilates and apparatus Pilates for 8 weeks, 3 times a week, 50 minutes among 40 businesswomen who experienced greater betterment in pain level and balance in Pilates mat exercises group (Lee et al., 2014). The intervention method was similar with the present study that mat exercises could be more effective on improvement of muscular strength as the practitioners had to resist against gravity. It might allow to strengthen the core muscles and limbs more as conducted by using body weight.

Reduce in pain in neck joint was also mentioned by the help PM by 21.9% of the participants in the present study. Neck pain is one of the most frequently encountered physical conditions that mostly stems from due to weak muscles or tightening the shoulders to support that weakness (Siler, 2000). People with neck pain show a decreased performance of the craniocervical flexion is related to dysfunction of the deep cervical flexor muscles (Falla et al., 2004). This problem is tried to overcome by a variety of interventions to strengthen the muscles of neck, shoulders, and scapulae through regular low intensity exercises (Falla et al., 2004; Jull et al., 2009). To illustrate, a low load cranio-cervical flexion training for 6-week improved the pattern of deep and superficial muscle activity in cranio-cervical flexion (Jull et al., 2009). Furthermore, patients with chronic neck pain who received spinal manipulation combined with low-tech exercise, and high-tech exercise for 11 week were satisfied with care two years after the treatment (Evans et al., 2002).

PM includes exercises to activate neck flexors that have a role reducing pain and disability in people with neck pain. In this manner, Mallin & Murphy (2013) investigated the effectiveness of a 6-week, an hour session lasted Pilates programme on outcome measures in a population of chronic neck pain patients (12 female, and 1 male). The results of the study suggest that Pilates causes long-term changes in reducing pain and disability in chronic neck pain patients.

As well as joint problems along with the vertebrae, many people may encounter with shoulder problems as a result of improper usage because of traumas, sport injuries, home accidents, being overweighed, and working conditions. Keeping the

muscles strong, flexible, and endure through physical exercises is one of the solutions. The findings in the present study also provides evidence that another positively affected joint through PM was decrease in pain of shoulder joint that was expressed by 15.6% the participants. This reduction in shoulder pain is consistent with findings by Keays et al. (2008) who conducted a study to examine the effects of Pilates exercises on shoulder range of motion (ROM), pain, mood, and upper-extremity (UE) function in 4 women who had been treated for breast cancer. Participants who took part in Pilates exercises for 12 week, three times a week reported improvement in UE ranges, decrease in average pain level for three participants but increased for one participant. Authors stated that Pilates exercises may be an effective and safe exercise option for people who are recovering from breast cancer treatments.

As well as having decreased level of pain in joints, mostly along the vertebrae, participants got benefits for pain resulted from headache (6.25%) and fibromyalgia syndrome (3.1%) after participating in PM.

Headache is a health problem that has a notable impact on personal, social, and financial dimensions to result in distress, disability, and cost (Symvoulakis et al., 2007). There are several studies that show the effectiveness of some psychological treatments, medication, and mind body therapies to cure headache. For instance, cognitive-behavioral, biofeedback and relaxation training, hypnosis, meditation, manipulative therapy, a low-load exercise program, and pharmacological therapies are somatic and psychological techniques in treating headache (Blanchard et al., 1980; Jull et al., 2002; Van Hook, 1998). Also, meta analysis of randomized controlled trials by Sierpina et al. (2007) showed that use of MBTs, alone or in combination, significantly reduces symptoms of migraine, tension, and mixed-type headaches.

The fibromyalgia is a chronic disorder of persistent widespread chronic musculoskeletal pain and higher pain perception in specific anatomic sites called tender points pain and diffused abdominal pain, sleeping disorders, fatigue, stiffness, reluctance, depression, headache, migraine, variable bowel habits, and

urinary frequency that may inhibit people to conduct daily routines (Aguglia et al. 2011; Busch et al., 2007; Busch et al., 2011; Carville et al. 2008; Sevimli, 2007).

According to NIH, treatment of fibromyalgia often includes both conventional (prescription drugs, analgesics, and NSAIDs) and other approaches of physical exercise. Several studies have reported that moderate intensity physical exercises are recommended (Busch et al., 2011) to be beneficial for people with fibromyalgia on physical and psychological well-being including aerobic conditioning, pool-based exercises, and PM (Altan et al., 2004; Busch et al., 2007; Clark et al., 2001; Gowans et al., 1999; Martin et al., 1996; Meiworm et al., 2000; Saltskår Jentoft et al., 2001).

For instance, Altan et al. (2004) compared a 35 minutes, three times a week, for 12 weeks pool-based exercise and balneotherapy without any exercise in 50 FMS patients. The results showed significant decrease in pain, morning stiffness, tender points, and depression level, and improvement in sleep in both groups. According to an investigation by Korkmaz (2010), a 12-week, three times per week, one hour PM in 25 sedentary patients with FMS resulted in positive effects on anthropometric parameters, social physical concern, and pain and depression levels.

In a randomized, prospective, controlled trial, Altan et al. (2009) compared a 12-week, 3 times a week, 1hour per session of Pilates exercise program and home exercise (relaxation/stretching) program in 50 women FMS patients on the parameters of pain, functional status, and quality of life. The results showed significant improvements in both pain and fibromyalgia impact questionnaire at the 12th week in Pilates group but no difference between the two groups at the 24th week.

In addition to the improvements in body pain that participants mostly stated by virtue of practicing PM for a period of time, they also implied that they feel more energetic (53.1%) and strengthening their muscles (50%).

Taking part in physical activity contributes people in terms of increasing positive aspects or decreasing risks physically such as enhancing muscular endurance and

muscular strength. Therefore, PM may offer many people beneficial outcomes to better physical capacities by providing mobility and using body structures properly. Previous a semi-experimental research by Pourvaghar et al. (2014b) has shown that 8 weeks of Pilates exercises are safe and beneficiary to improve general health condition of the male elders.

Similar to the enhancement in energy as a possible consequence of muscular endurance through practicing PM as the participants of the present study experienced are supported by other studies (Fourie et al., 2012; Kloubec, 2010; Rogers & Gibson, 2009; Sekendiz et al., 2007). Exemplifying, middle-aged individuals in study by Kloubec (2010) advanced their physical capacity in terms of abdominal muscular endurance and upper-body muscular endurance in through relatively low-intensity 12 week, twice a week, 60-minute sessions per week of Pilates exercise program in active middle-aged men and women. In addition, Rogers & Gibson's (2009) study revealed a significant increase in both curl-ups and back extension for endurance of abdominal and back muscles following an 8 week, three times/week, and 1 hr/day, of traditional mat Pilates training-program in beginner level adults. Increase in abdominal muscular endurance and strength was also presented in repetitions of curl-ups after 5 week, three times a week of Modern Pilates mat exercises in 38 sedentary adult women (Sekendiz et al., 2007). As the intervention periods of at least 5 to 12 weeks of the stated studies led to improvement in muscular endurance, almost half of the participants of the present study felt alike positive results on their endurance through mentioning the increase in feeling of more energetic. It may result from nature of PM that does not necessitate equipment or a high degree of skill and are easy to perform. The focus is mostly on core region with many combined and choreography like movements by transition from one movement to another continuously without a break.

Improvement in muscular strength experienced by the participants following a period of PM in this study is supported by also some authors (Alpözgen, 2013; Amorim et al., 2011 ; Boguszewski et al., 2012; Fourie et al., 2012; Kloubec, 2010; Marandi et al., 2013; Sekendiz et al., 2007). In this regard, the efficacy of an 8 week, three times weekly Pilates based exercises were revealed in the rehabilitation of upper extremity disorders related with breast cancer treatment as

improvements in muscle strength and functional status usage in women participants (Alpözgen, 2013). Also, Amorim et al. (2011) expressed the crucial effect of a mat-based PM for 11 weeks, 2 sessions per week of 60 minutes on developing muscular strength in 15 dance students (12 women and 3 men) with more than ten years of daily practice in dance.

Combination of medical treatment and physical exercising of a 12 week period PM and aquatic training showed a significant increase in muscular strength and a higher QOL in multiple sclerosis suffering women (Marandi et al., 2013). In addition, study by Fourie et al. (2012) determined mutual effects of an 8 week, 3 times a week, mat Pilates program as sufficient enough to improve upper-body and lower-body muscular strength, and muscular endurance in 50 elderly women. Also in the present study, there were four participants, who had started to practice PM for less than one year- almost 8 to 9 months- expressed the beneficial effects of the workout on strength and endurance. Moreover, evaluation of effectiveness of Pilates and aquafitness trainings for 10 week, once a week, 1.5 hours in each session showed increase in upper limbs strength on behalf of the group of aquafitness program while improvement in lower body strength in the group of Pilates exercises among old women (Boguszewski et al., 2012). While strengthening lower body was also mentioned by two of the participants in the present study, half of them expressed that they got stronger as a result of practicing PM. This may result from application of the series and modification of the movements that managed by the instructor for each practitioner privately, according to their physical needs and capabilities. In the present study, the participants had been exercising at least 8 months to maximum 15 years; therefore, duration of intervention may cause this increment in strength. On the other hand, Korkmaz (2010) found no improvement regarding muscular strength as a result of one hour, three times per week, 12 weeks performed Pilates exercises in 25 sedentary patients with FMS. Similarly, the participants who suffered from FMS (P5, P13, P17) did not state any improvement in strengthening the muscles.

A good balance, in a manner especially influences many activities efficiently in daily life, defined as the equilibrium resulting from the matching of torques that can be organized in anticipation of (i.e. before), or as a reaction to (i.e. after) the

effects of postural disturbance. Forces arising from gravity, external events or individuals' own actions all tend to disturb the unstable equilibrium that preserves posture. (Balasubramaniam & Wing, 2002). Balance is bilateral as being both static and dynamic, which necessitates moving a stable postural set over a base of support (Duncan et al., 1990).

Ability to return to equilibrium position after a perturbation explains the trunk stability that requires the stiffness to prevent instability and consequent self injury. Therefore, adequate core control that may result in spinal stability causing an increase in ability of the body to maintain dynamic balance (Stokes et al., 2000) is attained through PM indicated as an appropriate exercise modality to improve balance among many people. For instance, Freeman et al. (2012) reflected the beneficial effects of a 12 week period Pilates based core stability programme and a standard physiotherapy exercise programme on subjective and objective measures of balance and mobility in ambulatory people with multiple sclerosis. Also, study by Appell et al. (2012) compared a twice a week, one hour, 10 weeks of Pilates program on body balance in elderly people (n=19) with another group of elderly people (n=20) who participated in a program with unspecific physical activities that included flexibility, strengthening, and aerobic exercises of low intensity and short sport games. The results showed significant improvements in balance abilities of Pilates group and concluded that the effects of PM might represent an entity of improved postural muscle functionality and an improved integration of the information provided by various receptor systems in the control of the activity of these muscles.

The improvements in posture experienced by the participants (43.75%) following a regular PM program for a period of time in this study is supported by other authors. First of all, regarding restoration the balance of ideal posture for an advanced dancer who has the fatigue posture, Duran & Costa (2014) focused on the effects of a well structured BASI Pilates program. The participant who was a professional dancer in this case study had some physical benefits on kyphosis in upper back through strengthening upper back extensors and hip flexors through Pilates exercises that were influential on overall well being of body and balance. This is supported also by Kaesler et al. (2007) who examined impact of an eight

week, twice a week Pilates inspired exercise program that was declared to develop postural awareness. It was designed to improve balance in an upright position, i.e. postural stability, with a great focus on facilitating movement re-education specifically in seven subjects 66-71 years old showed improvement in postural awareness. In the present study, 14 of the participants expressed enhancement in their postures were between the ages of 27 to 70. Therefore, it could be thought that modified Pilates exercises would be effective on betterment of posture among the young, adults, and elders.

As PM is known to be a gentle technique of strength training with an emphasis on the deep trunk muscle layers, Kuo et al. (2009) recruited 34 adults aged 60 and over to investigate changes in sagittal spinal posture during standing and sitting after a 10 week twice weekly Pilates-based exercise program. Results indicated that participants stood with slightly decreased thoracic flexion and sat with slightly increased lumbar extension after the program. During the follow-up period, small improvement was observed in the thoracic kyphosis during standing. In another observational study, Schroeder et al. (2014) reported significant spine shape changes in the form of spinal erection, i.e. decreasing thoracic angle and increasing spinal length, after 12 week, once a week, 60 minutes of Pilates-based training exercises in 24 females. In the present study, Participant 21 and 32 expressed the transformation in their back regarding upright and erect position of posture which might be result from improved muscular strength of deep musculature of core region through practicing PM.

As well as the positive results of PM on postural ameliorations similar to this study, some studies pointed out adverse results. In a case report, Blum (2002) described functional improvements after practicing of PM as a co-intervention for chiropractic treatment of the patient with scoliosis, however the author did not mention to posture modifications. Besides, study conducted by Kloubec (2010) regarding effects of 12-week Pilates mat exercises did not show improvement in posture and balance.

Besides the mentioned physical improvements, 37.5% of the participants in this study also expressed their perception of being in form that is related with weight

control, body fat percentage, body fat weight, body weight, fat percentage, and body mass index (BMI).

In a review of randomized controlled trials by Conn et al. (2003) stated the reason for alterations in muscle and fat percentages of body that during aging process, physical activities of the individuals reduce and their body weights increase.

Some studies based on PM exercising program have supported the opinions of the participants in the present study regarding beneficial influence of PM on being in form. As a type of physical activity, the positive effects of PM were observed on waist-hip ratio, biceps, triceps, fat percentage, higher resting metabolic rate, and lean body mass (Gilliat et al., 2001). Also, Fourie et al. (2012) explained the effects of an 8-week Pilates programme that decreased the fat mass and increased lean body mass.

Influence of PM on obesity has been also examined by some authors. For example, Abanoz (2010) revealed a decrease in weight, body fat percentage, body fat weight, BMI, waist-hip ratio, and an improvement in blood lipid results as a consequence of an 8 week, three times per week, for 55 minutes of regular Pilates matwork exercises program in 15 middle aged sedentary obese women. Furthermore, Çakmakçı (2011) demonstrated similar effects of 8-week, four times a week, an hour duration modern Pilates mat and ball exercise program in 58 healthy sedentary obese women. The results of these two studies showed benefits of PM on reducing obesity and body composition parameters.

In the same subject, Erkal et al. (2011) pointed the beneficial effects of Pilates mat-work exercises program on reducing body fat percentage of 20 healthy sedentary middle aged women who assigned into the experimental group - performed 8 week, 3 times a week, 45 minutes of 40-60% intensity of training sessions, and control group. In another study, Rogers & Gibson (2009) showed that an 8 week, 3 times/week, 1 hour per session of beginner and intermediate level traditional mat Pilates program had positive effects on reducing body fat percentage of middle aged sedentary women (n=9) compared to control group (n=13). This result is also parallel with the present study although the participants

performed modern mat PM. It may be concluded that both traditional and modern mat PM exercises are good at improving body composition of the practitioners.

The effects of PM on body composition was also revealed by comparing it with walking activity by Ersoy (2008). The author compared an 8 week, twice a week, one hour Pilates exercises and daily 10000 steps walking in 28 middle aged women ages between 35 to 40 years old. The participants were divided in three groups of control (n=9), 10000 steps (n=11), and Pilates (n=8). The results showed decrease in BMI, body fat ratio, waist and hip circumference in both walking and Pilates groups. The present study is compatible with these results that more than half of the participants (56.25%) had been conducting walking activity simultaneously with PM in their schedules. More specifically, 8 of the 12 participants who stated they felt being in form as a result of PM had been walking and 3 of them dealing with abdominal exercises (P2), social dances (P14), and practicing Pilates by herself (P16). On the other hand, only one participant (P6) were not practicing an additional exercise. Combination of PM with other physical activities seemed to be beneficial on being in a better shape.

Influence of PM on FMS was also revealed by Korkmaz (2010) who demonstrated the positive effects of one hour, three times per week, 12 weeks Pilates exercises on BMI in 25 sedentary patients with FMS. In the present study, one of the three participants with FMS (P13) who was practising PM twice a week declared of being in form. However, other two participants (P5 & P17) did not stated any comment on this subject.

In order to examine effects of short period of time and high frequency of PM exercises -for 4 week, 5 times a week- on body composition and blood pressure, Jago et al. (2006) studied with 30 girls aged 10 to 12 years old. It was reported that practicing PM was beneficial to reduce BMI percentile to prevent girls from obesity. In the present study, P15 and P16 who were practicing PM sequentially 8 times and 4 to 5 times weekly also stated to be in form by practicing PM. Moreover, those who were practicing twice a week felt in form, too. This may suggest that PM exercises are beneficial to keep practitioners in form when performed at least twice a week.

Interventions of the mentioned studies showed differences regarding their practicing periods, frequencies, and duration of sessions. However, all they showed positive effects on body composition. To reveal the impact of various intervention applications, Aladro-Gonzalvo et al. (2012) determined how Pilates exercises have impacted body composition (BC) on selected populations through a systematic review. It was expressed that Pilates mat practice for 4 weeks, 5 times per week, for 60 minute (intervention type I), and 8 to 12 weeks, 2 to 3 times per week (intervention type II) tend to be the most positive interventions for changing BC. In addition, there was also a trend toward reductions in body weight and percentage body fat in most systematic interventions (type I) as far as more practice hours per week, as opposed to longer interventions with fewer practice hours per week (type II), where body weight and fat mass tended to increase. It was suggested that increase in number of the training sessions in a week was more beneficial on reductions in body weight and percentage body fat. In the present study, only two of the participants were practicing PM more than three times weekly. While P15 had been practicing PM regularly 8 times a week, P16 had been performing it 4 to 5 times a week. Both of them stated that they felt being in form as a consequence of practicing PM. Their opinions on this manner respectively were *“regarding my weight... of course not suddenly, but there was a great decrease gradually”* and *“when I started to Pilates, I started to look better as my body, more firmed.”* As well as, other participants who performed once, twice, or three times at least 35 minutes to 60 minutes per session thought as the same. For example P14 who had been practicing twice mentioned that *“my waist and hip have tightened. I mean, although I put on weight, my pants are all fitting. So, my muscle mass has increased.”*

On the contrary, through an observational prospective study, Segal et al. (2004) did not result significant changes in truncal lean body mass and weight as a result of practicing a 6 months, weekly 1-hour session Pilates mat class in a sample of 47 adults (45 women, 2 men). Similarly, Sekendiz et al. (2007) examined the effects of Modern Pilates mat exercises 38 sedentary women who did not show decrease in the body weight and fat percentages.

Experiencing advancement in flexibility with the aid of practicing PM regularly was stated by 18.75% of the participants in this study, as well.

Flexibility takes part in the motor capacity associated with the amplitude of activity performed by each joint. It is the movement breadth available in an articulation or group of articulations as being limited by bone structure of joint, muscle size and strength, tendons, ligaments, and articulation capsules (Akandere, 1993; Bertolla et al., 2007). Flexibility capacity of the muscles, ligaments and tendons with movement ability is higher in women. This condition might be attributed to hormonal differences. Since, high estrogen level increases water retention and fat ratio, and reduces muscle mass (Akandere, 1993). Additionally, some external factors such as life habits, kind of training method, room temperature, previous warm-up of muscles, and other factors like genetic, history, gender, age, muscular and adipose volume affect capacity of flexibility (Bertolla et al., 2007). Although the flexibility decreases with age as a result of fast pubertal growth during the adolescence (Bertolla et al., 2007), it could be improved and recovered by suitable training programs including the stretching exercises in daily routine (Akandere, 1993; Bertolla et al., 2007).

Types of stretching, duration of the stretching exercises and their effects on capacity of flexibility have been declared by some studies. For instance, the literature suggests contradictory results on the effects of the static stretching to improve flexibility (Bandy & Irion, 1994; Roberts & Wilson, 1999; Russell & Bandy, 2004; Zakas et al., 2005) or to impair the flexibility (Cramer et al., 2004). In addition, some studies have showed significant flexibility gains through dynamic stretching exercises (Amorim et al., 2011; Fredrick & Szymanski, 2001; Yamaguchi et al., 2007).

A study by Akandere (1993) detailed the static and dynamic stretching exercises and examined their effects on flexibility in 32 female athletes ages of 17-22. The participants were assigned in two groups of sixteen for static stretching exercises group and dynamic stretching exercises group for 3 months, twice a week, 30 to 40 minutes for each session. Every exercise which was repeated 4 to 6 times, was conducted for 20 seconds at the beginning, then increased 10 seconds more. At the

end of every three months measurements were performed. It was noticed that as well as the dynamic stretching exercises, performing the static stretching exercises more is advisable to improve flexibility.

A Pilates series includes movements of dynamic stretching in nature like single straight leg stretch (scissors), saw, open leg rocker, and scissors in air. Also, cool down and stretching part includes static stretching exercises for upper and lower body for 15 to 30 seconds. The efficiency of stretching protocol in the present study was supported by also Zakas et al. (2005) who investigated the acute effects of stretching duration on the range of motion (ROM) of the lower extremities and the trunk in 20 sedentary elderly women (65-85 years old) who performed three static stretching protocols of a 60 s stretch (1×60), two 30 s stretches (2×30), four 15 s stretches (4×15). The findings showed no significant differences between the stretching protocols that a single 60-s static stretch of the lower extremities and trunk's muscles produced the same effect as two 30 s and four 15 s stretches during a flexibility training session.

According to Kloubec (2010), individuals can possibly advance the physical capacity in terms of flexibility through relatively low-intensity Pilates exercises that do not necessitate equipment or a high degree of skill and are easy to master and use within a personal fitness routine. The studies by Amorim et al. (2011), Çakmakçı (2011), Ersoy (2008), Gilliat et al. (2001), Rogers & Gibson (2009), and Sekendiz et al. (2007) previously mentioned when discussing the positive effect of PM on body composition also showed an increase in flexibility.

In an observational study conducted by Segal et al. (2004) also indicated the positive effects of Pilates mat training on flexibility in a sample of 47 adults (45 women and 2 men) after practicing the exercises for 6 months, once a week, an hour duration. In contrary, the participants who had been practicing PM once (n=4) a week did not mention improvement about this feature. However, 8 of the participants who stated improvement in flexibility had been practicing PM twice a week in the present study.

It was speculated that flexibility gains could be related to muscular strength gains after the Pilates training (Amorim et al., 2011). On the other hand, while 16 participants expressed increase in muscle strength through practicing PM, 3 of them stated improvement in flexibility in the present study.

Flexibility is also a crucial ability for professional athletes. Bertolla et al. (2007) proved that a 4 week, three times per week, 25 minutes of PM exercises behaved as a useful therapeutic tool in increase of flexibility of sub-20 futsal athletes highly prone to decrease of this condition, both due to the sports modality they practice and by the vital cycle in which they are. Therefore, PM seemed to be an important alternative in the prevention as well as recovery of injuries triggered by the decrease of the muscular length. Although those participants were younger male athletes, they showed improvement in flexibility in a short time period of PM practices. This may suggest that PM is a good alternative to increase flexibility in individuals with high athletic performance, as well.

Easier transition to menopause was another beneficial physical impact of practicing PM regularly as signified by 9.4% of the participants in the present study.

The hormonal changes that are associated with the climacteric and menopause result in physical, psychological and social changes (Rodríguez-Fuentes et al., 2014). Exercising physically is proved to be useful to alleviate some of those negative symptoms during the period of menopause to contribute QOL in menopausal women (Andreoli et al., 2001; Corrêa Dias et al., 2003). Exemplifying, Netz et al. (2008) revealed that over a period of 4 years physical-activity patterns along with a low frequency of daily complexity, relatively few menopausal symptoms, and a low level of interpersonal stress significantly contributed to the variability of well-being.

It is a fact that, complementary and alternative therapies have been preferred by an increasing number of women to help manage menopausal symptoms. In order to reveal prevalence of the use of alternative therapies for menopause symptoms, Newton et al. (2002) described participant characteristics associated with their use

through a telephone survey of 886 women aged 45-65 years (87.2% response rate). It was concluded that the use of alternative therapies for menopause symptoms is widespread, and women who use them commonly find them to be useful. Additionally, in a systemic review, Innes et al. (2010) reviewed the literature regarding the effects of self-administered mind-body therapies that included yoga and/or meditation-based programs, tai chi, and other relaxation practices. The review reflected that mind-body therapies reported to lead improvement in overall menopausal and vasomotor symptoms; improvement in mood and sleep with yoga-based programs, and reduced musculoskeletal pain.

PM has also proved to be effective on improving QOL among postmenopausal women. Exemplifying, improvement in both physical and mental components of the health related QOL in menopausal women was demonstrated through a 12 week, twice a week, and 60 minutes of Pilates-based exercise programme with 27 participants in a prospective observational study (Rodríguez-Fuentes et al., 2014). Furthermore, study by Küçükçakır et al. (2013) compared the effects of a twice a week Pilates program and thoracic extension exercises of home program for one year on pain, functional status and QOL in 70 women with postmenopausal osteoporosis. Although a greater improvement was noted in the Pilates exercise group as compared to the home exercise group, a significant improvement in nearly all evaluation parameters of pain, functional status and QOL were also recorded in the home exercise group. In the present study, 3 of the participants who expressed easier transition to menopause as a consequence of performing PM also stated decrease in knee pain (P11 & P21), increase in strength (P21 & P25), and feeling more energetic, being in form, and improvement in posture, flexibility, and body awareness (P25).

In addition to these mentioned physical improvements, one of the participants in this study stated the beneficial effect of PM on chronic constipation that is one of the symptoms related with irritable bowel syndrome may be characterized by abdominal pain, irregular bowel movements, constipation, and diarrhea. Using the core region effectively, especially the deep abdominals and pelvic floor muscles during PM sessions might have helped to this participant to recover her problem.

Additionally, stress-free feature of the Pilates classes might have aided to overcome this physical problem.

5.2.3.2. Psychological Changes

Besides many physical advantageous that the participants of the present study mentioned thanks to practicing PM regularly, some psychological improvements were also stated. Although there are many studies to show contributions of physically exercising on physical wellbeing, literature is partially limited regarding positive effects of physical activities on psychological wellbeing.

Individuals need to endeavor getting the greatest successes, having healthy bodies and improving their minds through their abilities and limitations for all social status (Pilates & Miller, 1998). These expectations are possibly fulfilled through PM that have some emotional and psychological benefits when practiced regularly alone or in a group session. For example, performing PM with physical effort and allocating enough time in spite of the busy schedule of many people may provide many positive returns. This training method might enable one to stay alone with himself/herself and focus on body and disconnect with outside world for a certain time for simplification of the mind at that moment. Focusing on the movements during muscular contraction, increment in blood circulation, and acceleration of the rhythm of the body could contribute mind to be in an active state. The bodily comfort that is obtained through the exercises provides experiencing feelings of being happy, self-esteem, self-confidence, and sense of accomplishment. Also, it might be possible to stay away from the stress and problems of daily life during the PM session that could help to think more clearly and more discreet of mind to deal with them at the end of the sessions.

According to Pilates & Miller (1998), physical health is a very important vitalism of sense of wellbeing. Attaining and sustaining a well-balanced body with discretion and clear mind contribute to achieve many different daily activities within natural state, effortlessness, and pleasure. In fact, inactive life style may quicken the unalterable losses both physically and psychologically caused by the aging process. Taking part in physical activity might contribute gaining and

sustaining positive psychological aspects. Mechling & Netz (2009) clarified them as increasing life expectancy, improving cognitive performance or reducing cognitive decline and neurological disorders, and improving well-being or reducing depression. Similarly, De la Cerda et al. (2011) expressed that exercising physically has some positive effects on mental functioning and mental health, and decrease in tension and anxiety.

Positive effects of exercising on physical and psychological health cannot be separated from each other as many studies pointed out. Especially, psychological benefits considered stemming from as a result of physical outcomes. For instance, in a meta analysis, Angevaren et al. (2008) concluded that aerobic activities, which improved cardio-respiratory fitness, were beneficial for cognitive function in healthy older adults without known cognitive impairment, with effects observed on motor function, cognitive speed, auditory and visual attention. Also, Leung et al. (2008b) quantitatively revealed among 465 cardiac patients that MBTs could promote mental well-being, and thus such practice might reduce risk related to negative affect.

Functional and psychological benefits of exercising physically introduced by Mutrie et al. (2007), as well. In a randomized controlled prospective open trial, the authors determined those benefits through a 12 week supervised group exercise program during treatment for early stage breast cancer of 203 women whom 177 completed six-month follow-up through. The participants had Functional assessment of cancer therapy (FACT) questionnaire, Beck depression inventory, positive and negative affect scale, body mass index, seven day recall of physical activity, 12 minute walk test, and assessment of shoulder mobility. The results showed that supervised group exercise provided functional and psychological benefit after a 12-week intervention and six months later.

In addition, Tekin et al. (2015) demonstrated the positive influence of regular aerobic exercise program participation, Tae Bo, for 4 months, 3 times a week, duration of 60 minutes, on physical, motoric and psychosocial developments in 40 obese female university students who were randomly distributed to the groups of exercise (EG) and control (CG) which consisted of 20 students in each.

Favorable impacts of physical exercises on physical and psychological wellbeing was conducted with 75 women fibromyalgia syndrome (FMS) patients, ages between 18-50 years old by Sevimli (2007). The researcher searched the effects of pool-based, gymnastic-based and home-based aerobic exercise programs on physical and psychological parameters of the participants. The results showed that pool-based exercise program and gymnastic-based exercise program have positive effects on psychological parameters, especially reduction in depression levels, in the treatment of FMS. Although home-based aerobic exercise program did not show any positive effects on physical and psychological parameters of the participants, in the present study P16 who had been practicing twice or three times for 15 years of home exercises in addition to twice a week PM sessions stated her psychological condition as feeling happy and content and increased self-confidence. Parallel to the findings of Sevimli (2007) on decreased level of depression through the physical exercise programs, P24 expressed her point of view on practicing PM regularly twice a week for 3 years that *“if you are feeling depressed, and if exercise that day... I feel much better for the rest of the day... it is like a psychological therapy.”*

Some of the studies have taken an interest on importance of attending in physical activities that are entertaining. According to Roy et al. (2009), pain is supposed to be alleviated by various mechanisms. These mechanisms include cerebral and spinal modulation of pain by emotions, and increased production of the brain hormone endorphin once a person takes part in enjoyable activities like taking a bath, being interested in a hobby, or having a favorite food. In a similar way, Lim et al. (2011) suggested that the curative effect and psychological influence of the Pilates sessions as one of the enjoyable activities should be considered to alleviate low back pain. In the present study, 18.75% of the participants also responded enjoying exercise through practicing PM. For example, P25 explained that *“I did so much sports until now, but I was not so much motivated by any of them except the Pilates. I am always eager to do the Pilates.”*

Reasons of people to take part in varied activities were also taken into consideration by researchers. In this manner, Özesen (2007) expressed that the main motivational factor for individuals as consumers who become involved in a

daily rafting trip as an outdoor and recreational sport was psychological wellbeing, which included the factors of aesthetics, value development, self-actualization, self-esteem, and reliving stress. In a similar way, participants of the present study found PM as a means of feeling happy and content, feeling relaxed, and increasing self confidence. The views of some participants were respectively:

I feel happier and better emotionally in a more positive sense (P8).

Exercise really helped, especially when I feeling bad, when I exercised I felt much better (P24).

I really like doing it, it relaxes me (P1).

It is raising your self-confidence, and anyone looking from outside can feel this (P2).

Positive psychological effects of PM exercises were indicated by Pourvagar et al. (2014b) that 8 weeks of Pilates exercise, which was a cost-effective and noninvasive intervention, could be employed to enhance the mental health condition of aged population. Psychological effects of exercising was also noted by Abanoz (2010) who assessed the effects of Pilates mat-work exercises program on physical fitness and blood lipid results of 15 middle aged sedentary obese women who participated in 8 week, three times per week, for 55 minutes of exercises. During 8 weeks, participants were asked regarding their psychological state verbally. Due to being out of research, without being bound to any table, survey, graphic, or mathematical data, the participants stated positive motivation, which was identified as positive reflection on exercise performance through observation. In the present study, participants' responses on psychological improvements as feeling happy and content, relaxed, and positive mood could be thought to provide positive motivation toward keeping practicing PM regularly. One of the participants (P23) point of view may summarise all these that *“it really improves your mood... doing something for your body... for yourself... trying to feel and understand every part of your body, and concentrating on yourself while doing that... improves your psychology.”*

It has been indicated by Da Fonseca et al. (2009) that physical activity is one of the strategies to increase the level of serotonin that naturally increases the level of consciousness and general awareness, thus it can lead to more happiness and improvement of performing daily work (Rogers et al., 2009). Caperuto et al. (2009) explained that serotonin is a neurotransmitter that arranges several

functions, such as food intake, energy expenditure, motor activity, mood and sleep. According to the authors, acute exhaustive endurance exercise increases the synthesis, concentration and metabolism of serotonin in the brain. In a similar way, the effect of Pilates method on mental health might be ascribed to the act of serotonin as mood of an individual might be changed by the instability of serotonin level that could influence the social and psychological functioning (Babayigit, 2009; de Siqueira et al., 2010). In this study, P16 emphasized that *“I think while practicing Pilates, enjoying music, the body releases serotonin I guess. I feel very happy.”* Furthermore, Boguszewski et al. (2012) demonstrated improvement in mood through both participating in a 10-week, once a week, 1.5 hours Pilates and aquafitness trainings in elderly women. Although the frequency of exercises -once a week- was considered as insufficient for sustaining full fitness, even such minimal doze of physical activity positively affected the physical and mental condition of the seniors. In the present study, one of the four participants who practice PM once a week mentioned about improvement in positive mood. In this manner, P6 explained that *“ I think that Pilates reduces aggression... It gives a positive look on life and probably it is a hormonal thing. This may be related to the hormones that are secreted during Pilates.”* In addition, P5 and P20 who had been practicing PM once a week stated sequentially that *“after you finish, you feel really very happy... a revival, you are about to enter a process of coming to yourself again”* and *“I feel very happy to do this... I love to do these movements and in the aftermath to finish.”*

Considering the effects of performing PM at least 8 months to 17 years with once to eight times a week in a group or private class provided a great number of physical benefits ($f=115$) when compared to psychological advantages ($f=53$) among women participants according to their point of views.

5.2.4. Implementing the Principles of PM

All PM exercises implemented through the essentials of proper breathing, controlling the usage of muscles and joints, ability to concentrate, centring by

using the core muscles, ability to practice the exercises in a precision manner, and trying to perform the movements in a flow to keep fluency of the rhythm.

Stabilization of the core muscles, i.e. the abdominal, gluteal, and paraspinal muscles in particular, is necessary to initiate the exercises, is followed by a controlled range of motion. Contrary to many traditional methods of muscle conditioning that require participants to perform maximal voluntary contractions, PM focuses on the most effective recruitment of motor units which places the emphasis on energy efficiency and quality of performance. In order to prevent overuse of the joints and keep longer duration of muscular contraction, each exercise is repeated a few times, two to three, three to five, and five to eight or rarely ten; so the body is constantly being exposed to new muscular and kinesthetic challenges (Merittew, 2003).

Breathing principle of PM had been performing properly by 75% of the participants most of the times. One participant (P32) who had difficulty in implementing the correct breathing said that *“I believe I forget, which means... I have established a habit. I want to do it, as I try to implement it when I forget but I continue the established practice of shallow and frequent chest breathing.”*

Another participant (P14) stated that:

During the exercise... the instructor says that we breathe in when pushing our legs, and breathe out when pulling our legs to our chest... but I do the opposite. I think to myself whether I am doing something wrong, or I feel that I hold my breath to do a movement. I cannot do that movement right when I am breathing.

Another participant (P5) indicated that *“I do not breathe in through my nose... but there is no problem with breathing out, but with breathing in”*. The views expressed by these three participants raise questions on whether breathing in and out anatomically as part of correct breathing while doing the movements is a learnt practice. Furthermore, incorrect and insufficient breathing inserts negative impact on the rhythm of the movements.

One participant indicated that the breathing principle of PM was implemented in general (P16) *“I pay attention... to correct breathing, and I breathe in and out correctly. I focus on it more in each movement to do it correctly.”* Another participant (P9) *“yes, I try, I pay attention. I do not know if I do it all the time but I*

am aware of it” while the other one said (P18) “... *yes, as much as I can, and as guided by my instructor.*” The responses provided by three participants may make us think that self-learning and self-awareness directives can help implementig the breathing principle properly.

Importance of breathing is emphasized in every branch of physical exercises and sports. It is vital to breathe air in the lungs to produce energy and to exhale the used air outside. The point to be emphasized is the rhythm of the breath while doing the exercises, as well. Analyzing each movement correctly, and inhaling and exhaling properly would enhance the benefits received from the movements. As Siqueira et al. (2010) claimed, enhancement of blood flow to the brain is one of the positive effects of performing physical exercises like proper breathing, relaxation, and stretching. This increase in blood flow to brain improves the oxygen delivery to the brain cells and increases the mental and psychological functioning of the individuals.

PM involves essentially isometric and respiratory exercises, which may contribute to improved ventilatory efficiency and reduced energy requirements for movement (Guimaraes et al., 2012). Abdominal muscles that are major expiratory muscles contribute expiration and work to stabilize the body position during exercise (Suzuki et al., 1995). It was hypothesized by Hodges & Richardson (1997) that the deepest abdominal muscle of transversus abdominis is activated independently at a subconscious and submaximal contraction, as a part of the motor plan, to provide trunk stiffness during dynamic movement. The transversus abdominis normally contributes to respiration when expiration is increased voluntarily by forcing expiration (as is done in PM breathing) or involuntarily by breathing in against an inspiratory load. In contrast, during normal relaxed breathing the transversus abdominis does not seem to be activated.

One participant (P30), who encountered some difficulties in fulfilling the control principle of PM expressed that: “*I think... I will improve the movements in time...not randomly, but in time, I think I will control better.*” The control of movements is expected to turn into a learnt behaviour in proportionate to increase in muscle power and coordination.

All participants with the exception of this one expressed that they performed the movements in a controlled manner, while some participants said:

I learnt from the Pilates that the movements are more effective when performed slowly (P17).

I was not able to do this in the beginning but I can do it now, there has been considerable progress (P22).

My instructor is very strict on this, I pay attention to that (P23).

These comments might imply that the slow practice of controlled movements with the right breathing techniques takes time and the instructor's reminders play an important role in this.

When muscle control is learned, it can be applicable to any function of physical activity including walking, running, lifting, or carrying. The idea of engaging and controlling the muscles without tensing is one of the most difficult actions. In order to avoid injury and produce positive results, movements are better to be performed with extreme control (Siler, 2000). The term named as 'the Pilates box' is the key for proper alignment from shoulder to shoulder and hip to hip to create a square of torso serves to train symmetrically and safely (Ungaro, 2002). Performing the movements by staying within the box at a slow pace with 2 to 8 repetitions may lead using the joints less, eliminate the possibility of any injury, and help to get the highest benefit of them.

PM concerns to work the body efficiently to the edges of its designed parameters. It aims to attain balance between the stabilising muscles anchoring one body region (Direction Control) while the muscles moving an adjacent joint or region, work efficiently to move from one extreme of range (sometimes hyper-mobile) to the other and back again (Range Control). The mind and body focused PM uses these two key exercise types as elements within its own system of exercise. The concentric and eccentric phases should be performed with smooth transition, without shaking and without an altered path from the ideal movements. Therefore, the full range of ideal movement may be achieved concentrically to inner range and eccentrically to outer (McNeill, 2014).

One of the participants explained the difficulties she encountered in implementing the concentration principle of PM as such: *“I lose control a bit there, I am sometimes occupied too much by the issues at work”* (P28).

On the other hand, 31 of the participants stated that they achieved the concentration principle. Some of their comments were as followed:

I believe I do concentrate. Actually when I concentrate, I can breathe right, I can more easily practice the movements properly, my concentration increases (P2).

I am very concentrated while exercising (P8).

I have noticed that I thought doing the movements fast was something good, but I Realised that it was wrong and my concentration has improved in due course (P17).

My concentration is much better compared to the beginning (P22).

These comments show that concentration may require correct breathing, practicing the movements slowly and all these would take time for perfection.

Concentration is the key element to connect the mind and body. It emphasizes using the mind to direct muscle movements and control the positions of joints throughout the body with a concentrated somatic focus (Siler, 2000). It may be necessary to establish a link between the mind and body by thinking on the muscles that are worked, and imagining the correct acting out of the movements with verbal or visual instructions during a session.

One of the two participants, who expressed difficulties in concentration on the core area in Pilates sessions indicated that *“although I may forget from time to time, I think I can concentrate again upon my instructor’s warning”* (P32).

Rest of the other participants expressed positive opinions regarding concentrating on core area. Some of these opinions in this respect were:

Our instructor already reminds us on where to concentrate all the time (P4).

Yes, I have learnt this in time. This was a practice I have established with more difficulty (P19).

I did not understand anything in the beginning... It is different now, if I practice it more carefully, listen to the instructor’s feedback more carefully. I can feel the difference if I practice it (P22).

Abdomen and core, I focus on the core a lot in particular. My abdomen may not be great but I believe I can control my core better (P28).

Yes, this happens in time but one cannot control it at all in the beginning, you develop it over the years (P29).

The common emphasizes in all these comments were controlling the core area, performing the movements through focusing, developing this ability over time, achieving it better with the instructor's observations and reminders in flow of exercises, and making centering an accustomed behaviour with many trials to be experienced.

It is the act of neuromuscular system to retain postural stability and minimize the impact of harmful loads on the spine (Herrington & Davies, 2005). Exercising of the core muscles provides this support to spinal stability to reveal the problems along the spine. Strengthening the muscles of core, or powerhouse, that includes abdomen, back, pelvic floor and hips, is crucial while performing the exercises of PM efficiently. All movements of the body are managed from this region that needs to be kept strong. During the implementation, thinking on the mentioned muscle groups is required for safety of all joints and muscles. According to Winsor (1999), when the center strengthened it allows new information to come in and provides strength all aspect of life to enter into mind and spirit. Emotionally, that center is the place where people operate best from, love themselves, speak from, feel emotional pain, joy, and happiness.

Many authors have researched on activities of abdominal muscles, illustrating, Queiroz et al. (2010) mentioned that all core muscles contribute to the optimal lumbar-pelvic stabilization needed for athletic performance, daily activities, and function Also, study by Hodges & Richardson (1996) revealed the delayed onset of activation and poor activation of the transversus abdominus in low back pain patients compared to healthy controls. Moreover, McGill & Cholewicki (2001) discussed the important role of local muscles like the multifidus and transversus muscles. In another study, Dias et al. (2014) compared abdominal electromyographic (EMG) activity of the superficial abdominal muscles of rectus abdominis and external oblique during the performance of the same Pilates exercises on mat or apparatus. Furthermore, studying with dancers, Amorim et al. (2011) commented that stimulating the abdominal musculature continuously, PM provides a stronger core is essential for set and support the kinetic chains required to raise lower limbs. Also, continuous gluteal muscles contraction required by Pilates exercises resulted in a great improvement on muscular strength to better the

technical skills of the dancers. In a descriptive study, Queiroz et al. (2010) compared the activity of stabilizing trunk and hip muscles of iliocostalis, multifidus, gluteus maximus, rectus abdominis, and external and internal oblique muscles in 4 variations of Pilates stabilizing exercises in the quadruped position. In another observational study, Herrington & Davies (2005) indicated that Pilates trained subjects could contract the TrA and maintain better lumbo-pelvic control than do those who perform regular abdominal curl exercises, or no abdominal muscle exercises. To conclude, a large part of the exercises in a Pilates series designed to strengthen the deep abdominal muscles. The activation of these muscles varies according to the anatomical position of the lumbar vertebrae within movements (Sapsford et al. 2001).

The participants, who expressed that they sometimes could not perform the precision principle of PM, explained the following views: *“I am not sure if I can practice the movements precisely, due to my age”* (P26), *“I try to do it as much as I can. I sometimes lose my concentration, unintentionally. I realise at that time I am out of the essence of it”* (P28).

Other than those comments, the participants, who claimed they performed the precision principle of PM correctly, expressed the following views:

I believe I do, because... we are practicing as two people and... if do it wrong, we are warned of. I do not have the chance to continue the mistake anyway, therefore I think I do it right (P14).
If I focus on the movement, precision comes automatically (P19).
I am told that I do it pretty much correctly (P21).

These comments emphasize the importance of focusing on how to perform the movements correctly and the warnings and feedback from the instructor. An emphasis for correction of the movements was also pointed out by study Göral (2006) who evaluated reasons for adults to participate in physical exercises and their point of view regarding exercising. 400 participants ages of 26-35 (75% women and 25% men) who took part in walking, step and aerobics activities expressed for their needs on lack of information and needs regarding nutrition, technical implementation and correction of the movements during the workout.

Each of the movements in a Pilates series is designed to be performed in accordance with the range of motion protect the joints and work the muscles at the most efficient angles. Therefore, the movements should be performed slowly while thinking on them in the recommended way. As McNeill (2014) suggested, while observing a poorly executed exercise, precision appears to be sacrificed. The exercise can not conducted longer in a smooth manner. The muscles involved in creating the movements may not be able to achieve the full range in one or both directions.

The participants who experienced difficulties in achieving the flowing movement principle of PM indicated that:

I have some difficulties... as soon as possible, I want to get out of this very difficult movement, or for example, to bring it to an end, immediately, as in our real lives... this time, the Pilates instructor tells that finishing the movement in a flow is the right thing to do, I tried to make myself accept this, of course (P17).

I can see some flaws there (P20).

I do not think I practice the movements in a very flowing manner. I always think... what am I going to do now... I do not know either, I think I cannot do in a flowing manner (P23).

As far as I am capable of, but sometimes it is interrupted, when I get tired (P31).

The comments by the participants show that the difficulty level of the movement and fatigue may deteriorate implementing the flowing movement principle.

The comments expressed by the participants, who state that they fulfilled the flowing movement principle of PM in general were sequentially:

I try to do... them, in line with the directives (P9).

I could not follow the sessions in the beginning... the flowing movement, coordination, then in time, I tried to follow more comfortably (P12).

Actually I imitate... I look at the instructor... how the instructor's arms, legs move... the instructor does not move from one movement to the other carelessly... I pay attention... at the very least, I try to do it (P14).

When the movements are practiced in a flowing manner, a regular rhythm emerges and its impact becomes more positive (P19).

These responses may reveal that verbal feedback from the instructor and observing the instructor while he/she demonstrating the movements during a session could bring about the flow and coordination.

Movements in a PM series are designed to improve strength, cardiovascular capacity, flexibility and coordination by performing them one right after another.

There are transition movements between the exercises to connect one to another in order to provide continuity. As it was expressed by Siler (2000), the continuous flow and grace of motion in PM, including the fluid transitions between exercises, matches the need for organic connectivity throughout dance like movements. It is advisable to keep the pace during the movements in a series and transition movements that create a choreography format should not be performed in a sudden or a quick version.

5.2.5. Emotional Stance Before and After the PM Sessions

Prior to the work of PM, most of the practitioners in the present study were generally in a happy and excited mood as they thought about doing an activity good and beneficial for their body and mind. Also, they felt that they allocate time for themselves in their schedules that make them more disciplined and content. In addition, some of them were in changeable feelings before the sessions. For example, they might feel oppositely good, bad, normal, calm, hectic, great, or tired. Moreover, some participants were in a calm and relaxed mood as they concentrate on what they will practice through the session. On the other hand, sometimes, some of them may be anxious or precipitate when they are in difficulty to manage the time and intensive situations at home, work or social life. Also, feeling tired was stated by a few of the participants who practiced PM sessions in the morning or after work in which wanness was dominant for them. Finally, one participant expressed her mood depressed right before PM sessions, although she felt like a newborn at the end of the work.

All the participants reported positive emotional transformations at the end of the sessions when compared with beginning. As well as feeling positive emotions at the beginning of the sessions, the negative ones like feeling mixed emotions, hurried, tired, and depressed transformed to totally positive ones at the end. The participants stated that they felt happy and content, peaceful and relaxed, tranquil, positive, rested and more concentrated when they finished the sessions. This result may indicate that PM led to positive transformations on emotional stance of the practitioners.

Human body continues its existence by acting, instead of keeping steady. There are some options that modern life offers to value the time. One of them is fulfilling many daily routines by moving less. However, it is possible to increase the dynamism by the help of PM movements with control of mind through exercising all muscles. Feeling the experience of this privilege during performing the exercises transforms into joy and peace of being made of the right movements at the end of the class.

The joints and muscles are relaxed after the work of PM, therefore this comfortable state of body provides the feeling of contentment and happiness by the idea of doing a worthwhile activity for body. Mood of relaxed, peaceful, and tranquil may result from intensity, rhythm, and pace of PM exercises that may forward to comfort in mind through clearing it. In addition, since the mind is motivated positively, its influence may be observed strongly when the normal rhythm of life starts. At the end of the sessions, attaining to a rested mood may provide more concentration at work and daily life.

Physical activity is recommended as an important tool to treat and prevent various physical problems and diseases, in addition to heal some psychological problems like depression and anxiety. In a meta-analytic review, Arent et al. (2000) researched 32 studies to examine the exercise-mood relationship in older adults. In studies comparing an exercise group with some form of a control group and comparing pre- to posttest changes in mood, exercise was associated with improved mood in the elderly. It was concluded that physically active elderly individuals appeared to have an enhanced global mood in comparison with physically inactive elderly individuals.

It is probable to elevate mood state of individuals through variety forms of physical exercises. For instance, women with cardiac disease who practised mind body therapies in study by Leung et al. (2008a) declared their opinions that showed some similarities with the present study. They pointed out the positive effects of those therapies in terms of increase in self-efficacy and positive mood, sense of enjoyment and achievement, the lack of health barriers, stress reduction, and the opportunity for socializing. In a narrative review and summary, it was also

concluded that aerobic and resistance exercise enhances mood states, and improves cognitive function in older adults (Fox, 1999). In a similar manner, PM was found significantly effective on improving self-efficacy, positive mood, and sleep quality over the course of a semester in collage students (Caldwell et al., 2009).

One of the studies regarding physical activity and mood improvements was carried out by Berger et al. (1997). The authors focused on the relationship between normal and abbreviated training sessions and acute changes in mood among 25 girls and 23 boys competitive swimmers between the ages of 12 and 25 years. It was concluded that even for highly trained competitive swimmers, exercising at or near maximal physical capability was associated with few positive changes in mood scores. However, moderate level of exercising seemed to be preferable to provide positive changes on depression, confusion, and tension. Considering PM sessions in the present study that had been conducting according to physical and psychological states of the participants thought as not exhausting, fast, and high intensity. It may suggest that the practitioners felt themselves in more positive emotional stance after the workout.

One of the studies proved mood could even be worsened compared to the state before exercise conducted by Blanchard et al. (2001). The authors examined the effects of exercise intensity on feeling states following two acute bouts of exercise (i.e., 50% and 80% of heart rate reserve) in 12 highly fit and 12 unfit females. The results showed that psychological distress significantly increased for the unfit participants while there was no change for the highly fit participants in the 80% intensity condition although no change in the 50% or control group.

Mood could also seem to be worsened after a few days of intense physical activity. In this respect, O'Connor et al. (1991) observed consequence of the greater training load on mood states of 18 female and 22 male college swimmers who completed a paced 182.9 m swim before and after a 72-hr period of increased training. The results showed significant elevations in stroke frequency, fatigue, overall mood, and muscle soreness levels occurred in association with the increased training. Additionally, significant reductions in vigor and stroke length were observed as a

consequence of the greater training load. In another study by Shephard (2001) also revealed that moderate-intensity physical activities provided decrease in blood pressure, prevention of stroke, mobilizing body fat when compared with high relative intensities of physical activities. Besides, moderate-intensity physical activities ensured long-term benefits on mood state rather than a hard relative intensity of effort. PM workout opposite to high intensity workouts may provide improved mood to its practitioners as not leading fatigue, decreased vigor, uncontrolled movements that interrupt precision. In the present study, therefore, all the participants pointed out positive mood states.

Although many researches have investigated the mood enhancing properties of exercise, there has been some examples that the effects of physical activity on mood state might not be positive and may be unsteady. For instance, a review by Peluso et al. (2005) examined the relationship between physical activity and mental health that particularly concerned on the association between exercise and mood. Considering specifically the relation between physical activity and mood, it was indicated that moderate exercise improved mood while intense exercise led to its deterioration, and that these mood variations were more related to the construct of depression than to the construct of anxiety.

Regarding the relationship between physical activity and mood states, Lennox et al. (1990) conducted a study to evaluate the effect of 13 weeks of aerobic exercise on the mood of non-depressed men and women. According to the results, although subjects demonstrated significant improvements in physical fitness, there were no significant changes in either positive or negative mood. Thus, exercise did not have any long-term beneficial effect on the mood of non-depressed individuals. On the contrary, one of the participants in the present study suffered from depression for 30 years said that *“my mood is down in general, but after an hour, I feel much better... even if I feel very depressed before we start.”* However, she felt happy and content, peaceful and relaxed at the end of the PM sessions as she mentioned *“I feel like a newborn after we finish.”*

In another study, mood states of aerobic exercisers were examined by Frazier & Nagy (1989) before and after completing a 15 week program in 86 women ages 18

to 36 years old who were classified according to previous exercise habits. It was concluded that participation in regular exercise did not significantly change or enhance the mood states from pre-treatment measures. In the present study, 87.5% of the participants had previous and/or present physical exercising habits in addition to PM workout. Considering this percentage, it could be stated that participation in regular exercising can change mood states through combination of PM.

5.2.6. Thinking about Problems in Mind during the PM Sessions

Performing PM necessitates synchronization of the movements with consciousness that can be explained with the notions of mindfulness and concentration simultaneously while executing the exercises for precision. Keeping the mind away from the current events, daily concerns, or personal issues enhances the quality and impact of the exercises in a Pilates series.

According to the findings, majority of the participants ($f=22$) stated that they had not been thinking about their problems during the practice of PM. The views of the participants in this regard expressed respectively:

If I do that, I cannot get the best out of the exercise session, the session moves very efficiently if I can concentrate, which I do most of the times... it feels like I forget everything during the exercise, I keep on going after forgetting [them] (P2).

No, really... at that moment they disappear, you focus on Pilates (P5).

I do not think about anything, that is right. It is very relaxing, it discharges me mentally (P6).

I do not think anything. Even, it clears the mind (P8).

No, I do not keep them, definitely, I do not think anything during the course (P11).

No, I do not think them. Because I am concentrating on what I am doing, that sounds good too (P12).

No, I do not think, in fact, it is the best thing. At that time, I am focusing on breathing, or doing the movement correctly (P21).

Pilates is about self-reflection during the exercises. In other words, we think about our bodies, but nothing else. We are detached from the world completely (P22).

No, I don't think them... I noticed it later that my mind gets away... I do not live anything, distress, I do not think anything except Pilates and exercising (P25).

No, whatever happens I do not keep any problem in my mind too much. Even so, while I am doing the movement, I never think it (P26).

No, I do not think on any problem, I just think on exercising (P31).

I don't think so. I think, it is the best side of this matter; focusing on your breathing, trying to perform a movement by taking the power from the abdomen. I mean, while thinking these, you are completely out of problems with your family, your children, your business, your life. I think this is a super thing (P32).

Furthermore, some participants ($n=10$) stated that they sometimes had been thinking about their problems during the practice of PM. Those participants expressed the following views in this manner sequentially:

Yes, sometimes (P3, P7, P13).

Generally, I don't think them, however, of course, sometimes thoughts come to my mind, but they go back quickly (P4).

If I have a work-related problem and left it unresolved behind me, I am unable to concentrate completely... In order not to think it, I mean, when I struggle to not to think it, I cannot adapt to the sport. Trying to get rid off something in my mind is also an effort (P14).

While exercising alone, problems of the day come to my mind, but then I say, you are not concentrated, take them out of your mind, concentrate on the movements, and I try to change my mind (P16).

It is very difficult to get rid off them but Pilates helps this to do so. You focus so much on doing the movement right, you stop the flow of nonsensical thoughts (P17).

Depending on how busy that day was ... I can lose my concentration if there are urgent problems to be resolved in my mind (P28).

Very seldomly, if you are distressed, you cannot clear your mind, however you usually let everything pass while practicing Pilates (P29).

One of the features of PM is to relax and discharge the practitioners mentally as there is no break between the movements. The time period for practicing PM could be considered as a beautiful side and self-reflection for many practitioners who think nothing else except from focusing on their bodies to be able to disconnect with other things.

Concentration might be achieved through isolating the mind from other thoughts while performing an activity. Mainly, during the execution of a Pilates series, concentration may help to get more benefits from the movements through providing opportunity to stay away from the stressors and problems of daily life. Those issues mostly get lost since focusing on the movements might clear and relieve the mind. In fact, concentrating ability might sound good for some Pilates practitioners to neutralize their mind while performing a series that necessitates paying attention to its principles to protect the body as a whole and improve its capacity. The principles of PM include implementing the correct breathing, controlling the body in its proper alignment, concentrating to the motions of active muscles and joints, trying to use the core muscles in every movement, performing the each movement with an accurate technique for precision to reach perfect form, and being particular about smooth transition of movements within the exercise sequence for a constant flow. These principles may enable the practitioners to be

interested in only what they perform at that moment mindfully. Exemplifying, the practitioners could be isolated from their issues concerned with interpersonal relations of family members, friends, colleagues, and other problems related with their education periods, jobs, or health.

Keeping the focusing ability for a long duration in every time while doing something may not be possible for some individuals as they are interrupted mentally occasionally due to thinking about other things. The duration of losing focus shows differences among individuals during a Pilates session. While some of them could be affected by certain unrelated thoughts apart from execution of the movements for a long duration, the others could rivet their attention immediately on what they are doing at the moment. In addition, the reasons to lose concentration vary for some practitioners during a Pilates session. For example, when work-related and other daily problems occupy practitioners' mind, they may distract them from following the sequence and practicing of the movements correctly. Those extraneous thoughts may emerge when the day is too tiring, busy, stressful, or complicated to overcome and handle the issues.

In order to get optimum benefit from PM, internal motivation and external motivation could be advisable to the practitioners to adopt practicing the movements precisely that might be helpful to prevent them focusing on irrelevant thoughts. The solution for taking those unrelated thoughts away from the mind might change the perception and inspire the practitioners to concentrate again to perform the exercises properly. From the moment a Pilates session starts, practitioners are expected to move away from the issues related with the outside world through focusing on the movements mentally by the agency of verbal and visual instructions. Since the quality of movements is mostly affected adversely when other issues are active in practitioners' mind, it is possible for them to focus again by the help of warnings and corrections of the Pilates instructors.

5.2.7. Changes in Self Awareness as a Result of PM

The benefits of physical exercises and sport are mostly associated with ensuring the bodily functions in an effective manner and experiencing positive changes in

appearance. In this respect, physical and psychological advantages of PM also include self-awareness about body image and alterations. This section elaborates on changes in self-awareness of practitioners related with their bodies and personality characteristics as a result of PM. The notions of self, self-perception, and body image are examined to clarify the concept of self-awareness.

The concept of self can be defined as the opinions that are related with one's assessment regarding self-perception. It is all about an individual's thoughts regarding who he/she is and the evaluations on himself/herself. Judgments of an individual about himself/herself constitute his/her true self (Yentür, 2004, cited in Demir, 2013). Self is considered as the property of an individual who is aware of and perceives it. At the same time, it is sum of one's existence named by himself/herself consciously. They are the expressions of a person as I or mine (Kulaksızoğlu, 1998, cited in Demir, 2013). Self is all opinions of a person regarding himself/herself and the form self-recognition and self-assessment. The experiences, reactions, and behaviors of the person determine the concept of self (Kuru, 2000, cited in Demir, 2013).

Self-concept or physical self-perception is important for establishing a relationship with physical environment, having the ability of specialization, and experiencing a healthy development starting from childhood. The notion of physical self-concept is defined as the perception and evaluation of an individual's himself/herself in the psychomotor dimension (Fox, 1990, cited in Aşçı, 2004b). Faria & Silva (2000) claimed that challenge, relaxation, and cooperation inherent of physical activity contribute to the development of psychological well-being and physical self-concept. Aşçı (2004a) brought attention to physical self-perception, which is considered as associated with sport participation, might be enhanced through physical activities. In other words, physical activity level is an effective factor on the physical self-perception (Aşçı, 2004b).

According to Sonstroem & Potts (1996) physical self concept is the perceptions that belong to privatized personality traits like athletic ability, and strength. In other words, it means how one perceives and evaluates himself/herself in motor abilities like coordination, sport skill, and in physical fitness parameters, such as

strength, endurance, and flexibility. In this respect, Aşçı (2004a) investigated the relationship between physical self-perception and sports participation by comparing a sample of 329 elite Turkish athletes and 469 nonathletic university students. The study reported higher ratings of physical self-perception for elite athletes than nonathletes in all psychomotor subdomains. In the present study, similarly, participants also showed superior self-perception on physical properties ($f=36$) when compared to personal properties ($f=22$). In addition, it is crucial to mention that only P3, who was 72 years old, stated no improvement in self-awareness on physical and personality properties. Residual of the participants (93.75%), except P1 and P3, on physical properties, and 93.75% of them, except P3 and P32, on personality properties experienced improvement in self-awareness.

Effect of gender and physical activity level on physical self-perception was also investigated by Aşçı (2004b) among 190 university students (85 males and 105 females). The participants were classified separately according to gender as high and low level physical activity groups. According to the findings, gender and physical activity level placed an impact on the physical self-perception that males and physically high active individuals had higher physical self-perception scores than females and physically less active ones, respectively. This result is parallel with findings of the present study in terms of physical activity behaviours of women participants. Except 4 participants (P4, P22, P24, P26), others had been practicing various physical activities simultaneously or in the past in addition to PM workout. Hence, recognition of high percentage of improved awareness on physical properties showed similarities with study by Aşçı (2004b).

The relationship between physical self-concepts (SCs) and contemporary measures of life adjustment was examined by Sonstroem & Potts (1996) in 119 female and 126 male university students. The results reflected that physical self-concepts significantly improved associations with life adjustment. There were associations between physical self-concepts and positive affect, negative affect, depression, and health complaints. These links were mainly with perceptions of sport competence in males, and with perceptions of physical condition, attractive body, and general physical self-worth in both genders. When considering these results, participants in the present study emphasized on improved body awareness

through knowing it better; positively changing form of body; and increase in confidence on body. Some of the views to support those themes were:

As you pay so much attention to your body during the Pilates exercises, a very different form of awareness grows... In a way that I have not paid attention before... I think I am much more aware of everything about my body... I am now more self-conscious... more controlled... in every way... you become a person who can think clearly... and who can look at things more openly... as I liken it to meditation (P4).

I feel fitter as a result of these exercises and I feel happier as I do something positive by allocation time for myself (P19).

I feel more energetic physically, I walk better, I can move better (P27).

I thought I was physically weak. After all, the Pilates showed me that I was not that weak (P7).

The confidence in my body has increased... in the way I walk... the way I move... I was not walking as if I was subject to the gravity but... by knowing my body... my confidence in my body has really increased (P10).

Sport is considered as a crucial factor to improve body perception level of individuals. Study conducted by Baştuğ & Kuru (2009) compared body self-perception levels and gender roles of athletes (n=180) and sedentary (n=180) university female students. According to the results athletes cared about their health, appearance, and physical competence. In addition, they were pleased with their toned body due to conducting regular physical exercises, and they had higher level of body perception in comparison with sedentary participants. Also, Baştuğ et al. (2011) investigated the effect of aerobic exercise program on physical self description values in 80 sedentary women that participated in 8-week, 3 days a week, for 45-55 minutes of 50-60% intensity level. The participants showed significant improvement in their physical appearance, body weight, body mass index, and physically self description values.

As well as introducing the notions of self and physical self perception, mentioning the notion of body image seems to be important to explain self awareness. Perception of body image has an important function in development of human personality is a multidimensional construct consists of a set of cognitions and feelings about one's physique (Scully et al., 1998). Researches show that practicing physical exercises and sport considered to promote self-awareness perception of its participants. Participating in sports improves self-worth (Taylor & Fox, 2005) by encouraging physical abilities and pleasurable body images (Richman & Shaffer 2000). In fact, individuals who take part in sports have been determined as more satisfied regarding their body images than those who do not

take part in any sports (Martin et al., 2000). Since, those activities provide some physical and psychological contributions naturally on sense of body image. For example, enhancement of sensation of body image through sport participation was stated by Moss & Bessinger (1999) who examined high school male athletes (203) and non-athletes (340) whether differences exist with regards to disordered eating and body image perception. The results indicated that the athletes compared to the non-athletes were more health conscious and felt in good health. They also cared about fitness and felt more physically fit. Furthermore, they were more content and satisfied with their body. These results resemble to the findings of the present interview results showed that 31 of 32 participants revealed that they felt raising self-awareness on their bodies, recognized change in their body forms, had more control over their muscles and skeleton structure, noticed increase in self-reconciliation of their bodies, and felt happier and more content.

Practicing MBTs resulted in positive mood and promoted positive self-image as illustrated by Leung et al. (2008). Many participants of the study mentioned that they felt good after MBT practice. Subthemes identified by participants included promoting a sense of belonging, improved self-image and personal control over emotions, increased self-efficacy, stress reduction, relaxation, and quieting one's mind. In a similar way, participants in the present study stated that:

I feel happy about myself when I look at the mirror (P22).

I am a joyful person in general... I always try to keep my energy up. It feels like my energy is further up after the exercises (P28).

In general... I am self-inspiring person, in other words when I will do something, it will be good for me... I keep that in mind... from what I read... I like self-guiding myself, I do something beneficial for myself and this feels good (P30).

Research conducted by Richman & Shaffer (2000) pointed out similar results with the present study in terms of changing form of the body and increase in self-confidence on physical properties, as well. The authors examined previous experience of sport participation and valuation of body image, physical abilities, sexual identity, self esteem, and other psychosocial variables in 220 college females. They concluded that participating in sports promoted females' self-worth by fostering physical competencies and favorable body images. In addition, Yentür (2004) studied with 159 national elite sportswomen of basketball, handball, football, judo, karate, wrestling, and weight lifting disciplines to compare

personality and level of perception to their bodies. Except women in weight lifting and wrestling, sportswomen in other disciplines stated as compatible. Despite high level of social adaptation values and being compatible on behalf of all participants, sportswomen except for karate, wrestling, and weight lifting had higher social adaptation values. According to the results, body-self perception increased with personal and social adaptations. It was noted that when personal adaptation advances, social adaptation advances, too. Similar to these results, two themes of the present study, which were declared as feeling relaxed and tolerated, might be considered as advancement in personal adaptation property. The mentioned themes, were effects of PM leading to a more relaxed and tolerated personality, may provide basis for better communication with others to support higher social adaptation values.

Based on the findings of present study, PM would be proposed to enhance physical health and vigor depending on increasing confidence on self image. One of the studies proved the favorable effects of an 8 week, 3 times per week, an hour session of PM on physical body image and self-perception in 30 sedentary women. The participants explained that they had a more attractive body. Losing weight through participation in PM affected their psychological wellbeing in terms of improvement in physical appearance and self confidence (Demir, 2013). This increment in level of satisfaction regarding physical features and physical attractiveness through attaining to a new physical appearance resulted in sense of self-confidence shows similarities with participants of present study who declared their positive thoughts about changing form of body and feeling increased self-confidence on their personalities and bodies.

5.2.8. Changes in Perception of Self-Esteem as a Result of PM

This section, looks at the relationship between practicing PM regularly and changes in perception of self-esteem, explains the notions of self-esteem, self-confidence, self-liking and SWB. It then looks at studies focusing on the relationship between exercising physically, PM, and self-esteem.

Self-esteem is defined as positive and negative attitudes of an individual towards him/herself (Rosenberg, 1965, cited in Doğan & Eryılmaz, 2013). According to Tafarodi et al. (2003), self-esteem is essentially an aesthetic or valuative phenomenon, which consists of self-confidence and self-liking dimensions. Increases in the level of subjective well-being can be achieved through the development of self-esteem that provides positive and long lasting increments (Doğan & Eryılmaz, 2013). The body of research shows that self-esteem is subject to improvement through physical exercises and sports, as they provide individuals with a positive perception of self. Because sport is clearly an achievement-oriented activity, it helps participants to satisfy their achievement needs (Özesen, 2007). At this point, it is expected that performing PM regularly would improve self-esteem and contribute to the sustainability of SWB.

Being able to exercise regularly through PM made the practitioners realize their abilities to develop limits of their body physically and mentally. Thanks to its adaptability for individuals, PM enables practitioners feel a sense of accomplishment within their own determination, stability, and physical properties. Striving to feel self-esteem, self-confidence, and happiness seemed to be among the participants' priorities. Getting stronger physically and mentally might contribute the increase in these mentioned emotions. Although 90.6% of the participants stated positive transformation on perception of self-esteem, their responses on increase in self-confidence (46.6%) and feeling happy and content (37.5%) showed that participants had confusion regarding meaning of self-esteem.

The first theme of this question in the present study included increase in self-esteem: *“success for myself”*, *“the things I do for myself return to me as something positive”*, *“doing something for yourself”*. Self-esteem is individuals' assessment on themselves as self-sufficient, valuable and important (Coopersmith, 1967, cited in Doğan & Eryılmaz, 2013) has also included definitions of low self-esteem in reviewing the literature. Low self-esteem is explained as a common, disabling, and distressing problem (McManus et al., 2009). However, self esteem is observed as a structure that can be improved (Andrews & Brown, 1995; McManus et al., 2009) through effective treatments. For example, physical exercises and sports may provide individuals a positive perception of self, so that their physical skills and

abilities develop during exposure to the activities. Because sport is clearly an achievement-oriented activity, it may help practitioners to satisfy their achievement needs (Özesen, 2007).

There are some studies in the scope of positive psychology to mention beneficial effects of physical exercises on self esteem, depression, and anxiety. For example, a systematic review through analysis of twenty three randomised controlled trials by Ekeland et al. (2005) indicated that exercise may have short term beneficial effects on self esteem in children and young people. While the effect of self-esteem on depression and the effects between low self-esteem and anxiety were stated by Sowislo & Orth (2013), cognitive-behavioral treatment has been shown to improve self-esteem, is also well established as a treatment for anxiety and depression (Fennell, 2005). In a narrative review and summary, in order to treat clinical depression, reduce effect on state and trait anxiety, and improve mental well-being, moderate regular exercise was suggested as a means of upgrading QOL to the general public (Fox, 1999). Moreover, in an experimental design study, Klizas et al. (2012) indicated that an adequate self-esteem allowed a critical insight into oneself and coherence of one's opportunities with tasks of various degrees of complexity. Participating in physical activities like basketball, volleyball, football, and Pilates exercises and their educational impact was beneficial to promote psychosocial adjustment, self-esteem, dominance, and satisfaction with life in 265 adolescent girls. Those activities led to more adolescents to seek superiority, pride, self esteem, and self complacency, to make more courageous decisions, and to be more adaptive socially.

As a combination of controlled breathing, mental focus, and using somatic movements, PM may be considered to lead some positive changes to improve self-esteem perceptions of its practitioners. In this regard, Reppa (2013) searched whether a 4 week, 4 hours a week Balance and Reform program (BR) that trains soul and mind has any effect on self-esteem and trait anxiety in 20 young women. The program had four parts of Pilates and yoga exercises, self-awareness techniques, drama and movement exercises and a visualizing. The results showed that the BR program had a good effect on decreasing the level of trait anxiety and increasing the level of self-esteem. Furthermore, the participants felt an increase in

self- confidence, knowing themselves better and starting feeling less stress in their everyday life.

The second theme of this question in the present study included increase in self-confidence: *“you love yourself more, because you do something for yourself”*, *“as my body gets into a better form, my self-confidence also increases”*, *“ this increases self-confidence, you feel more confident”*. As the responses of the participants emphasized on concept of self liking, this concept is explained as one dimension of self esteem that also includes self confidence. According to Tafarodi & Swann (1995), conceptualization of global self-esteem consists of two aspects: a sense of social worth, or self-liking, and a sense of personal efficacy, or self-competence. Self-competence and self-liking are clearly bound together in development, for one’s successes are an indirect source of social worth just as one’s social worth, real or imagined, can indirectly promote personal achievement (Tafarodi et al., 2001).

Research has revealed two dimensions, self-liking and self-competence, are mutually supportive and highly compatible in most individuals (Tafarodi & Milne, 2002; Tafarodi & Swann, 2001). Self-liking is the answer to the question “who am I?” while self-competence is the answer to the question of “what can I do?” Self-liking reflects the acceptance and approval of an individual by himself/herself and the value that he/she gives to him/herself (Doğan & Eryılmaz, 2013). It is on moral character, attractiveness and other aspects of social worth. This dimension means valuing of an individual himself/herself good or bad as a person (Tafarodi & Milne, 2002; Tafarodi et al., 2001).

They are the features of self-liking that an individual evaluates himself/herself subjectively, and considers and approves himself/herself valuable as a social being (Tafarodi & Swann, 2001). Mature self-liking rests primarily on the social value that is ascribed as the personal criteria for goodness such as charm, beauty, integrity, kindheartedness, and social identity. Those who feel unworthy tend to judge themselves as incapable, just as those who feel worthy tend to judge themselves as capable (Tafarodi et. al., 2001). High level of self-liking enables one to have a positive impact on the social environment, feel comfortable and

acknowledge himself/herself (Rogers, 1961 cited in Doğan & Eryılmaz, 2013). On the other hand, low level of self-liking causes individuals to regard themselves as inferior and worthless, and to face the feeling of inadequacy in social environments (Blatt & Zuroff, 1992).

The other dimension of self-esteem, self-competence, refers to overall positive or negative orientation toward oneself as a source of power and efficacy (Tafarodi & Milne, 2002; Tafarodi & Swann, 2001). Self-competence, or personal efficacy, which is the feeling of competent, effective and controlled, is described as the positive and negative approaches to achieve goals and obtain desired results (Tafarodi & Swann, 1995; Tafarodi & Swann, 2001). It means to the overall positive or negative orientation toward oneself as a source of power and efficacy as a generalized trait. The more successful one has been in fulfilling the countless intentions that constitute a lifetime of action, the stronger and more effective one feels. As an aspect of personal identity, this strength is experienced as positive value, irrespective of any secondary, moral significance that overlays it (Tafarodi et al., 2001; Tafarodi et al., 2003).

The third theme of the present question was feeling happy and good which could be associated with SWB: *“not thinking too negatively about myself”, “feel caring about myself”, “something for my health, and I say it was great”, “feel myself more valuable.”* SWB, includes cognitive and affective dimensions, is defined as achieving satisfaction in life and experiencing positive emotions frequently while experiencing negative emotions less. In this definition, satisfaction with life forms the cognitive dimension of SWB. Whereas affective dimension includes positive emotions such as enthusiasm, pride, interest, joy, happiness and confidence along with negative emotions such as shame, guilt, hate, rage, spite (Doğan & Eryılmaz, 2013).

Studies have shown that depending on elevation in individuals' level of SWB, they behave more active, maintain a healthier lifestyle psychologically, fulfill the expected roles and responsibilities properly (Diener & Seligman, 2002; Lyubomirsky et al., 2005). It is more common between happy individuals, who reflect positive affect and adaptive characteristics, have a satisfying and an active

work, good relationships, better physical and psychological health, and long lifetime (Lyubomirsky et al., 2005).

Increases in level of SWB can be achieved through the development of self-esteem that provides positive and long lasting increments (Doğan & Eryılmaz, 2013). Having high levels of self esteem and SWB contribute productivity, performance, and creativity of an individual (Lyubomirsky et al., 2005). Furnham & Cheng (2000) discussed the relationship between self esteem and happiness in 230 young people who completed a battery of questionnaires. The findings concluded six factors, which were believed to be reasons of happiness in self and others were mental strength & personality traits, personal advantages, achievement & freedom in life and work, social support & esteem, security, and optimism & contentment. The best predictors of happiness were mood and temperamental traits (i.e., extraversion and neuroticism), social relationships (lack of loneliness and satisfaction with friendships), purpose in life, and global life satisfaction. By contrast, self-esteem was best predicted by dispositions related to agency and motivation (i.e., optimism and lack of hopelessness).

It is insight that self esteem is evaluated as an improvable pattern in examination of the literature. At this point, it could be expressed that performing PM regularly may improve self esteem that might support the sustainability of SWB as mentioned in responses of the participants in the present study. Practicing PM has served its practitioners feeling of happiness. Since positive transformations in body mostly affected individuals' self-esteem level, this might be related with level of SWB that is attained through regular PM.

5.2.9. Changes in Energy and Vigour as a Result of Practicing PM

Inactive life style quickens the unalterable losses caused by the aging process. Taking part in physical activities are advised people in terms of increasing positive aspects and decreasing risks. Those physical exercises enable people performing activities of daily living more effectively and improve QOL.

They are clarified as increasing life expectancy and decreasing risk of mortality, strengthening cardiovascular fitness and minimizing risk of cardiovascular disease,

enhancing muscle mass and lowering possibility of falls and instability, fostering cognitive performance and lessening cognitive decline and neurological disorders, and improving well-being and reducing depression (Mechling & Netz, 2009). A review conducted by Keysor & Jette (2001) demonstrated that increased exercise behaviour is widely promoted in developed countries among older adults certainly advances strength, aerobic capacity, flexibility, and physical function.

When PM practiced regularly by people of all ages, the changes occurred in physical capacity can increase efficiency at work, home, and social life, inevitably. Enhancements in endurance, strength, and flexibility of body may improve the compliance and efficiency in many activities of working and living conditions while sitting or standing, fixed or moving. Once the activities that are expected to fulfill are performed easily can also facilitate coping with more challenging and mandatory conditions.

Exercising physically through PM may lead to enhancement in energy level and vigor with strengthened muscles, improved endurance, flexibility, coordination, and agility while conducting various daily tasks or specific activities. The Pilates practitioners could feel themselves more energetic than the other people of their ages who do not exercise regularly as PM do not cause the feeling of exhaustion, tiredness, or fatigue. During the execution of the movements, while some muscle groups mainly activate as prime movers, the others rest or join the movements as secondary movers. Instead of passive resting, the tired muscles refresh themselves while working actively by helping to the prime movers.

When strength, endurance, and flexibility increased, it could be easier to resist doing the activities that necessitate being in a static or dynamic position without feeling any disturbance in joints or muscles like studying and working in front of a computer, standing for long hours, or moving without a respite. To support this, some participants stated that they felt more energetic as a result of PM (P1, P4, P5, P6, P7, P10, P26) in the present study. P2 also expressed that:

I can be more flexible when I sit for longer hours. Because working life, all my education life was always sitting in front of the computer. I used to suffer from upper and low back pain in the physical sense. Although I sit for long hours, there are no

muscle cramps in my back anymore. I used to experience a number of problems like pain or ache, they have not happened anymore.

Once the practitioners finish a Pilates session, immediately afterwards or during that day, they may become more energetic for a long period of time as exercising increases blood circulation and makes body more alert and active to achieve the responsibilities effectively. Also, feeling of increased energy and vigour might make the practitioners feel younger in spite of their real ages. In this regard some participants responded as follows:

I have become more energetic. We do Pilates especially in the morning, after doing it, my energy continued for a longer period of time during the day, became more active. I felt more energetic. It helped me to accomplish more work (P12).

Although I do not notice it so much, the others always say 'how energetic you are at this age!' I say everyone that it is presumably thanks to Pilates (laughing) (P16).

When Pilates is over, I think I have still energy, I can do many things, but my body do not allow it (laughing)... but I feel it (P18).

Sometimes, I am willing to come, but I can be tired. However, I usually recover from exhaustion after Pilates... I feel energetic, I am also getting ready for a different activity after Pilates, I feel good in that sense... I walk better, I can move better (P25).

I have seen the benefits of doing Pilates in the morning. Then, I feel more energetic... more vigorous (P27).

In general, sport sounds good to me. Unavoidably, as we are not at the ages of 20s, we could sometimes have low energy. Sport does not make me feel my real age... It makes me feel younger... makes me forget my age at the top of the paper all the time" (P28).

Especially, the day I do Pilates, I feel much happier, energetic afterwards (P31).

I think I get tired less, I can move faster... that's a very important thing when considering my age. I think, expression of the person of this age being less tired is already positive enough... it is probably a positive development on behalf of Pilates (P32).

In addition to ensuring increment in energy and vigour of the practitioners, strengthening physically by the help of PM may contribute resilience mentally and emotionally by providing positive motivation regarding various aspects of the practitioners' lives. When they pay attention simultaneously to their eating habits, using their bodies attentively at home, work and social life, trying to regulate their sleeping and resting habits as well as practicing PM, those individuals might feel better and more content. Some views of the participants in the present study regarding the effects of PM on providing positive motivation and contentment are introduced as:

I feel exactly healthy. Maybe, if I did not perform it, my pain would increase because of my body's unfit condition. From that point, I am happy, I am peaceful (P9).

Definitely, it has increased my energy in a positive direction (P11).

I think it adds me a lot. Performing it in a group is very enjoyable. The energy you receive from your instructor, friends that you perform together is also very effective... this also affects very positively. In addition, doing sport... doing something good for my body brings me positive things... because my day is going much better after the sport (P13).

It is good at energy like this... we are doing, we are leaving, we feel extremely happy. As we already relieve tiredness at the last part of session, we can leave very comfortably... it's not like many other sports. When you do the other sports, you really get tired, and then you would like to go home and sleep. However, after doing this sport, your energy does not decrease at all, you do not feel fatigue (P22).

PM could also offer to its practitioners behaving in a more organized and disciplined way. Will to realize any responsibility, activity, duty, or hobby effectively in a short term or a long term period necessitates planning, organizing, and managing time properly. Similarly, keeping to practice PM regularly in a busy schedule may make the practitioners more disciplined regarding allocating time to finish up other things. This programmed way of living can also affect other areas of life to be more organized and productive.

Although most of the participants (n=29) in the present study mentioned the positive contributions of PM on enhancement in their energy level and vigour, motivation and contentment, being more planned and disciplined, there some participants (n=3) who did not recognize any alteration in any of these areas. If an individual already has an active and energetic temperament, practicing any kind of physical exercise may not create a significant difference. Also, when an individual has a complicated or stressful life style, there could be a need for extra regulations or solutions to improve the life energy. Additionally, the practitioners who do not have opportunity to practice PM very often as they wish might not distinguish any possible positive effect on increase of the energy and vigour.

5.2.10. Benefits of PM to Cope with Stress

This part briefly explains the phases of stress, looks at its causes and negative effects on health. Then, it clarifies possible impact of physical exercising and PM to relieve stress.

Many people face with serious educational, psychological, social, physical, and emotional stressors throughout their lives. There have been many studies regarding stress and related concepts since 1950s that Selye (1956) conceptualized stress and

its effects on body as consisting of three phases that constitute the general adaptation syndrome. The first phase is an alarm phase in which the fight-or-flight response is elicited for mobilization and gearing up for fight or flight. The second phase is called as resistance phase in which the organism fights the stressor, but the acute fight-or-flight response ceases. The third phase, which termed as the exhaustion phase, in which the organism can no longer adapt to the stressor, could result in illnesses, and even death in some cases (cited in Jacobs, 2001).

In today's fast-paced life, physical and mental stress that individuals encounter is dangerous threats for both health and happiness. It is a common view that modern day stressors can lead or aggravate the health problems via the central nervous system, the peripheral nervous system, and the immune system. Das & O'Keefe (2006) stated that stress is often associated with self-destructive behavior and psychosocial stress appears to adversely affect autonomic and hormonal homeostasis, resulting in metabolic abnormalities, inflammation, insulin resistance, and endothelial dysfunction. Stress has been shown to result in cardiovascular (Dimsdale, 2008), gastrointestinal (Mönnikes et al., 2001) and musculoskeletal disorders (Schleifer et al., 2002), and central nervous system problems (Chrousos, 2009). To illustrate, mainly in the areas of hostility, job strain, and lack of social support, stress has been linked to insomnia (Jennum & Zachariae, 2012), hypertension, heart disease, heart attacks, increased cholesterol, constriction of coronary arteries, ischemia, and cardiac arrhythmias, as well as death (Jacobs, 2001). Stress also causes immunosuppression as stated by Kiecolt-Glaser & Glaser (1988) that interpersonal relationships, such as job loss, marital disruption and quality, bereavement, caregiving for a family member or a friend with a weakening illness are some of the most stressful life events.

Stressful life events have been linked to some health problems, however many factors including psychosocial support, stress reduction training, sense of humor, optimism, altruism, and regular exercise (Das & O'Keefe, 2006) may be positively influential on decreasing adverse effects of stress. Inefficiency to cope with stress may cause some psychological problems like mood disorders, anxiety disorders, and psychotic disorders prevalently at personal and interpersonal relations. Most of the stress and fatigue come from poor posture, imbalances in physical body, and

improper breathing. Therefore, learning to strengthen and control the muscles properly would be salutary before subjecting the challenges of daily living (Siler, 2000).

Self acceptance, positive thinking, increase in self confidence, and decrease in anxiety, stress, and depression are positive effects of physical exercises on people. Significance of exercise training is mentioned that it recruits a process that offers enduring resistivity to stress (Innes et al., 2010). The results of cross-sectional and longitudinal studies indicated that aerobic exercise training has antidepressant and anxiety reducing effects and protects against harmful consequences of stress (Salmon, 2001). According to Scully et al. (1998), when physical condition or fitness level improves, it is likely to ease the individual's capacity for dealing with stress. It was noted that aerobically fit individuals show a reduced psychosocial stress response, the role that exercise could play is probably best described as preventive rather than corrective.

The mind body stress reduction technique (MBSR) also has many benefits on many mental and physical disorders and reducing stress (Chiesa & Serretti, 2009). To exemplify, chronic pain patients (Kabat-Zinn et al., 1986), early stage breast and prostate cancer patients (Carlson et al., 2003), cancer outpatients (Specia et al., 2000), medical students (Rosenzweig et al., 2003; Shapiro et al., 1998) and healthy people (Chiesa & Serretti, 2009; Jain et al., 2007) could get long-term benefits. In this respect, comparison of two techniques of mindfulness meditation versus relaxation training for one month through a randomized controlled trial showed effectiveness of them in reducing negative psychological states and distress, reducing rumination and distraction, and enhancing positive states of mind in 83 students age of 25 (16 men and 67 women) (Jain et al., 2007). Also, Carlson et al. (2003) revealed significant improvements in overall QOL, symptoms of stress, and sleep quality in 104 cancer patients after participation in an 8-week MBSR program that included relaxation, meditation, yoga, and home practice. Similarly, results provided by Specia et al. (2000) provided evidence that a MBSR program could effectively reduce mood disturbance, fatigue, and a broad spectrum of stress-related symptoms in cancer patients.

In a prospective, nonrandomized, cohort-controlled study Rosenzweig et al. (2003) concluded that MBSR may be an effective stress management intervention in medical students in addition to its effects on tension-anxiety, confusion-bewilderment, fatigue-inertia, and vigor-activity subscales. Also, study by Shapiro et al. (1998) indicated that an 8-week MBSR intervention reduced state and trait anxiety, overall psychological distress including depression, increase overall empathy levels, and spiritual experiences in premedical and medical students. Moreover, in a review and meta-analysis Chiesa & Serretti (2009) expressed the efficacy of MBSR in reducing stress, ruminative thinking and trait anxiety, as well as enhancing spirituality values, empathy and self-compassion. In addition to these, similar to the findings of the present study, Leung et al. (2008a) also declared that MBT was used as a self-regulating tool for reducing stress, negative emotions, and anxiety, controlling anger, and keeping oneself calmer by almost all respondents.

Similarly, PM that is admitted as a MBP might help to serve as a protecting mechanism to relieve some psychological threats related with stress. Some mutual features of mind body therapies include concentration, control, and relaxation in their execution. Breathing correctly and using the active muscle groups both accurately and fluently may allow the practitioners to concentrate on movements through getting calm and focused. When stressful situations are encountered in daily life, PM may insure to think on them enough, and may help to keep the common sense before making a decision. Performing the movements in a calm mood by considering on each exercise, and being aware of the working muscles may encourage evaluating the factors of stress logically that might be met in ordinary conditions of life. In this context, PM can help to prevent and overcome the sources of stress that impact the psychological perception negatively. According to the findings of the present study, PM mostly provided women to gain a tranquil and healthy perspective in coping with emotional distress and stress reduction. PM was also considered as raising consciousness, strengthening mind and body to cope with stress. Three of the women perceived that engaging in PM good for them moderately to cope with stress. As some of them confused about its effects on coping with stress, they said that they did not know whether it was good

or not in coping with stress. On the other hand, a few of the participants depicted that it was not useful in coping with stress.

5.2.11. Ability to Overcome Negative Thoughts through PM

Negative thoughts or emotions commonly evoke the term of depression; therefore this part includes description of the notion of depression on the relationship between physical exercise and depression.

Depression is a major mental illness and the most common psychiatric disorders (Pourvagher & Bahram, 2014). According to Brosse et al. (2002), the term depression is used distinctively to explain a dysphoric mood state, a syndrome composed of a group of symptoms, or a clinical disorder and psychiatric condition. Negative state of mind, sentiments and feelings mostly remind of depression that sometimes leads increased pain, inconvenience, and chronic fatigue. In contrast it, depressive symptoms like sadness, fatigue and disturbed sleep may happen in the presence of some medical conditions such as stroke or congestive heart failure and may not warrant a separate psychiatric diagnosis.

There are some ways to treat depression syndrome like psychotherapy and antidepressant medication. Moreover, there has been a growing literature on the psychological benefits of participating in physical activities regularly as one of the crucial self-care attempts to lower depression symptoms among healthy and clinical populations. To support those, the reviewed research suggests that exercise treatment is more effective in treating depression than no treatment, and is as effective as psychotherapy and antidepressant medication (Brosse et al., 2002). There is evidence that regular physical exercise is effective in treating depression in individuals (Brosse et al., 2002; Craft & Landers, 1998; Martinsen, 1990). Both aerobic fitness and nonaerobic forms of exercises had antidepressive effect in patients with different forms of depressive disorders (Martinsen, 1990).

Important effect of exercising on clinical depression and depression resulting from mental illness was emphasized by Craft & Landers (1998) that individuals who exercised less depressed than individuals who did not exercise. According to

Martinsen (1990), patients who continued regular exercise for a year after termination of the training programmes tended to have lower depression scores than the sedentary ones. Also, Scully et al. (1998) mentioned that physical exercise regimens have a positive influence on depression. In this respect, aerobic exercise is suggested as the most effective one, including activities such as walking, jogging, cycling, light circuit training, and weight training, and that regimens extending over several months appear to yield the most positive effects. Furthermore, de la Cerda et al. (2011) confirmed the effectiveness of the aerobic training program included gymnastics, dancing, and walking for 8 weeks, three days a week as a complementary therapy in addition to pharmacotherapy to diminish depressive symptoms in 82 patients suffering from moderate depression.

Similarly, in a meta analysis, aerobic and nonaerobic exercise programs were introduced as beneficial as traditional forms of treatment such as psychotherapy and similar to other behavioral interventions as being cost-effective, effective in easing depression, and including positive health benefits (Craft & Landers, 1998).

Another meta analysis conducted by Craft & Perna (2004) discussed decreasing symptoms of depression and positive mood effects of exercise involvement that supports the efficacy of exercise as an adjunct treatment. The authors drew attention to a different aspect that the focus should be on frequency of exercise rather than duration or intensity until the behavior has been well established. In the present study, P15 had been exercising PM for 9 years 8 times a week used to suffer from depression stated that she got rid off from depression without medicines.

Long-lasting positive impact of exercising on reducing depressive symptoms and change in physical self-esteem predicted for change in depressive symptoms were also revealed by Motl et al. (2005) who examined 6-month conditions of either walking or low-intensity resistance/flexibility training on depressive symptoms over a 5-year period among 174 older adults. Depressive symptoms and physical self-esteem were measured before and after the 6-month intervention, and 12 and 60 months after intervention initiation. It was resulted that depressive symptoms scores were reduced immediately after the six-month exercise intervention, and

this reduction was maintained at 12 and 60 months post-program initiation; there was no differential pattern of change between the physical activity modes.

Practicing PM regularly demonstrated as an alternative method for improving physical fitness and QOL has also some short-and long-term positive effects on physical and mental health. Especially, the sense of relief and calmness that are felt at the end of a Pilates session can transform the perception of the practitioners regarding any status, and can prevent them to result in a negative effect. In other words, the adverse situations and emotions can be seen as solution-oriented.

There has been some studies to reveal the effects of PM on reducing depression level and other psychological issues (Hassan & Amin, 2011; Siqueira et al., 2010). To exemplify, Durutürk et. al (2013) declared reduction in anxiety and depression levels, and improvement in emotional reaction in 9 healthy university students after participating in Pilates exercises for six weeks, three sessions per week. In a semi-experimental study, Pourvagher & Bahram (2014) also found beneficial effect of 12 week, 3 times a week PM exercises on reducing depression in 30 old non-athlete women. Furthermore, Korkmaz (2010) pointed out the positive effect of a 12 week, three times a week, an hour Pilates exercises in 25 female FMS patients ages between 33 to 63 years on anthropometric parameters (weight, BMI, and body fat ratio), social physical concern, pain, and depression levels. In a randomized controlled trial, Eyigor et al. (2010) demonstrated positive impact of an 8 week, three times a week Pilates exercises when compared with home exercises on functional capacity, fatigue, depression and QOL and safe in 52 female breast cancer patients. When the positive results of these mentioned studies compared with the findings of the present study, the participants who took part in Pilates sessions at least 8 months to 17 years mostly (81.25%) got beneficial results from practicing PM at least once to maximum 8 times to overcome negative thoughts by calming down, being more tolerant, and concentrating better.

5.2.12. Changes in Ability of Concentration through PM

This section elaborates on changes in ability of concentration of practitioners as a result of participation in PM regularly and explains features of concentration in general meaning and exercising context-especially in terms of execution of PM.

The notion of concentration is explained in detail under the name of flow experience by Csikszentmihalyi (1990), is a very positive psychological state that happens when individuals notice a balance between the challenges related with a case and their skills to achieve or fulfill these demands (cited in Jackson et al., 1998). Flow experience is characterized as focusing on an action intensely. It also means riveting one's attention on that action and not thinking anything else important except doing the action at that moment. In the flow theory, sport is considered as an optimal experience area besides music, chess, theatre, and dance (Csikszentmihalyi, 2018). The reason for giving the priority to the sports activities or games in the research of flow experience is owing to the fact that intrinsic rewards are very evident in these activities (Yaşın, 2016).

There are eight characteristics of flow experience summarized by Jackson et al. (1998) as a challenge-skill balance, merging of action and awareness, clear goals, unambiguous feedback, concentration on the task at hand, loss of self-consciousness, time transformation, and autotelic (intrinsically feedback) experience. These characteristics of flow experience are detailed as follows:

Every activity includes some challenges that require a series of opportunities or appropriate skills in order to take action. Any activity is not challenging for those who do not have the right skills. Joy occurs between distress and anxiety, and when the difficulties are balanced with the person's capacity to act (Csikszentmihalyi, 2018). As Yalçınkaya (2014) mentioned, flow experience emerges more strongly in the tasks that people have opportunity to complete them and do not exceed their capacity too much. Regarding the challenging feature of PM and concentration ability P16 expressed that:

I think trying to focus on is always effective on all the behaviors, at every turn. When the movements are heavier, my concentration becomes stronger. In the faster movements, I feel there is a little bit loss on concentration. When the movements slow

down, as I focus on performing them slowly, I devote myself and it gets more enjoyable. Especially, while practicing together with the instructor, I can't think anything, at that moment, I feel I'm focusing so much. In addition, P4 mentioned that "I think when we first started, the movements were new, I was worried about my back, or doing something like that the first time, I thought I was doing a difficult thing. But, afterwards, I get used to it too much, I started to enjoy it, and now it sounds very easy.

If an individual needs to use all his/her skills in order to cope with the challenges of a situation, attention of that person is completely drawn to this activity. As a result, the individual becomes wholly absorbed in activity what he/she is doing, the activity gets spontaneous, almost automatic; they are not aware of him/herself as being apart from his/her actions. Most of the time, flow experience requires an active physical effort or a very highly disciplined mental activity. A momentary pause in the flow destroys concentration. However, while the flow continues, the consciousness functions smoothly and the action follows another action (Csikszentmihalyi, 2018). One of the participants in the present study pointed out that:

I used to experience difficulty while concentrating, now it's easier. Since, inevitably, perceiving and performing the movements simultaneously at the time when I first started, and level of my awareness at now have been very different, I feel the change in focusing (P13).

Additionally, some of the other views in this respect were as follows:

In order to get efficiency from the lesson... if I can concentrate that I do it most of the time, that lesson continues quite efficiently (P2).

In terms of sports yes, feel it when doing sports, you focus during the Pilates (P5).

I feel this too; because, focusing is necessary in order to enter into the movement. This is a sort of mental exercise. When you achieve this in other areas of your life, your efficiency increases in all sectors... I can think of a better way, I can focus easily (P19).

I feel like I'm focused on during the workout. But after the Pilates, I don't know it so much... I'm calming down more while performing the Pilates... I completely focus my mind on the Pilates (P21).

Yes, there have been some differences since from the beginning. I can concentrate better, or my selective perception has also increased regarding which muscle groups I should work better while performing the movements... I think I have come to more moderate levels from the beginner level (P32).

The concentration is more easily achieved in the tasks in which the results are well-known and the feedback is got fast. When an individual in flow experiences a deep concentration during an activity, he/she at least stays away from the troubles of daily life (Yalçınkaya, 2014). The reason to achieve focusing in a flow experience is usually due to the clear goals and providing instant feedback. What

constitutes the feedback varies greatly in different activities. Some people are indifferent to the things that others are very fond of. What makes information valuable is the symbolic message in it: I have achieved my goal. Such information systematizes the consciousness and strengthens the structure of self (Csikszentmihalyi, 2018). The sum of this information stated by P27 as:

It had an effect. As time passed by, as went on more difficult movements, as time goes on, as the idea of this could be a consciousness of life for me developed well, I mean, I have felt the emotions of continuing this very consciously, the desire to maintain, desiderating such as times when I could not do it due to my journeys.

While the experience continues, it is important to be able to forget about all the unpleasant aspects of the person's life. This feature of flow is an important side product of the enjoyable activity that leaves no room for irrelevant information because it requires full concentration in mind for the task at hand (Csikszentmihalyi, 2018). According to Yaşın (2016), in the course of concentration, the individual simply focuses on the action that he/she does and does not pay attention to the other factors around his/her. During the flow experience, the questions like 'Can I achieve it? or Am I qualified?' which are created by the individual's consciousness, are not being asked by the individual. Regarding this dimension of flow experience, P7 expressed the advantageous of concentrating ability as:

I can focus more during the Pilates which muscle group, where I keep the posture." Moreover, P10 responded that "I have observed this in many fields: concentrating on what I read, what I do, being able to plan my day ... I have always had them... but they continue with more consciousness." Also, P12 responded that "after doing sports, absolutely, I can concentrate more comfortably... my mind does not disperse as I concentrate on what I am doing."

Furthermore, P6 mentioned the improvement in her listening skill as a doctor while concerning with her patients:

I started being a better listener... normally I listen to people more superficially... my mind may be busy with other things... I realize that and I listen to people's problems better... I am a doctor at the end. I think I perceive it more carefully and I can help people more.

A person loses his/her ultimate control when he/she becomes connected to the ability of control a pleasurable activity till to not to be able to consider other things: He/she loses the freedom to determine the content of consciousness.

Therefore, there is a negative aspect of the enjoyable activities that produce flow potentially: Although those activities have the skills of increasing quality of existence in mind through creating an arrangement, they can become addictive (Csikszentmihalyi, 2018). The person, who is interested in such a task and finds himself/herself in the experience of flow, is expected not to care about the threats arising from other outside factors (Yaşın, 2016). P29 clarified the significance of controlling while exercising as:

Controlling is very important in all things; it has been increasing in such as your breath, concentration, using your muscles. Once you are very fit, you feel energetic. In that case, you can approach your work differently, you can concentrate on it.

When an activity prepossesses one's mind, the person cannot pay attention adequately to any irrelevant stimulus related with past, future, or temporary. In the experience of flow, in order to develop a strong concept of self, it may be sometimes necessary to give up self-awareness: the person is forced to do his/her best and constantly improves his/her skills. At that moment, there is no any opportunity to think what this means for the self; if he/she is aware of his/her self, the experience will not be very deep. But after that, when the activity is over and there is a chance of getting back of self-awareness, the self that the person thought on it is not the same self as one has before the flow experience (Csikszentmihalyi, 2018). P4 and P9 expressed that the concentration ability while performing PM similars to meditation which requires one to focus just on himself/herself. The view of P9 in this manner supports the loss of awareness as when the mind concentrates on the exercises of a series in PM, the body rests; it does not face with extra load by thinking other issues simultaneously as it is expected to experience during the meditation that relaxes the mind by simplifiying and purifiying the unnecessary thoughts. In the same subject P4 stated that:

I slightly liken Pilates to meditation because we are concentrating completely on the movement while doing it... We listen to ourselves, or we do not think anything else. At that moment, we are concentrating on just doing the movement.

The state of deep concentration also affects the individual's perception of time. It is meant to the difference of perception of the individual between the time passes normally and the time passes during flow (Yaşın, 2016). People feel like as if the time is not passes as usual. Most of the time, the hours pass like minutes; in

general, most people have said that time is much faster. However, occasionally it reverses. The perception of time during the flow experience does not bear too much resemblance with the flow of time as measured by the exact adjustment of it (Csikszentmihalyi, 2018). P4 expressed her sensation on time perception as:

For example, formerly... it would feel too long. In such a way that the class did not end, it got longer and longer. I mean, when we would pass stretching? Saying 'Gosh! time is not over yet, finally time is up... Now, very quickly, as if the time is flying, and I find myself suddenly started to stretching at a time.

There are varying periods of concentration of every person depending on the personality traits. While some people can focus on their work or task early in the morning, others can concentrate on them easily during late hours. It would be better for the individuals to know the time zone that they are the best at concentration and to focus on their work or task accordingly (Yalçınkaya, 2014).

As mentioned above in characteristics of flow experience, concentration requires putting everything aside and not thinking continuously about anything while conducting a task. In other words, it is related with the mind which is supposed to be engaged in a duty, responsibility, or activity performed at that moment separate from other thoughts. This may be one of the easiest and the most effective ways of achieving a task properly such as exercising through PM that includes various movements expected to be performed in a manner of precision with high concentration. To be able to get the highest benefit from each of the movements that comprise a series of PM, it is necessary to practice them correctly by focusing. Since there are different modifications for targeted muscle groups in a Pilates class, each exercise may not be repeated in the same manner in every session. The purpose is to avoid monotony and train body by stimulating with the help of alternative movements. In order to adapt various movements and perform them appropriately, there is a need for sustainable concentration. Ability to concentrate on the movements in a Pilates method series may increase quality of the session for getting more benefits. When one concentrates during a Pilates session, he/she can try his/her best for proper execution of each movement by protecting the joints and muscles from unnecessary load and injuries, and relieving and clearing the mind through diversing the focus on the movements instead of thinking on other issues.

Performing PM might teach practitioners to learn how to concentrate and its importance during the sessions in time. Experiencing the concentration dimension through these exercises is estimated to support practitioners' focusing ability in their daily life although the issues are diversified as supported by P17 that:

Because, I think about both the movements I will do and the breath, and the relaxation that I will feel after finishing the session... It is very difficult to fight the other thoughts off, but again Pilates helps this a lot. As you focus so much on doing the movement correctly, therefore, the gibberish flow of thoughts has been blocked.

Somatic approaches that value sensorial experience, are intuitive ways of knowing and developing habits of consciousness. PM as a somatic practice has been known for developing strength, flexibility and body awareness, improves practitioners to bring awareness to bodily processes such as breathing, sensing, and initiating movement from the core (Caldwell et al., 2013). While practicing PM, mind focuses to feel and see the body area that is working, in coordination with the breath, so that no movement is made randomly. By developing the capacity of focusing on the working body parts, the quality and accuracy of the exercises improve (Iulian-Doru et al., 2013). As expressed by Winsor (1999), being centered or focused provides people being emotionally convenient, mentally clear, intuitive and perceptive, being capable of accepting changes, and to improve their potential. The expression of P18 shows similarity on this matter as:

I could not concentrate once due to my depression... After I started the Pilates, I have seen that it has gone away slowly, disappeared. It is the same in my work life, I need to read a lot, I need to follow this closely. Therefore, I can say that my concentration disorder has gone away, I feel much better.

The impact of concentration in any activity in daily life might be provided by internal or external motivation, or other sources. One of the factors to increase concentration during physical activities could be achieved by the role of the instructor. Instruction is an important principle to assist practitioners in being mindful of a positive mental attitude and in its maintenance. Exemplifying, in order to increase attentional awareness in motion and coordinate breath with movement, verbal cues are given by instructors to notice breath patterns and reinforce the exhalation of breath with effort for ease in motion. Instructors also encourage practitioners by noticing small incremental progress over time, and what they can do, rather than emphasizing their limitations. In addition,

practitioners are given encouragement to notice pain and/or strain, and permission to modify as needed. This empowers them to realize and make conscious choices, i.e., to stop and rest, or alter positioning. Instructors also suggest gratitude by encouraging thankfulness for the range of motion, strength and body awareness that does exist (Caldwell et al., 2013). The importance of the instructor to contribute the concentration ability stated by P22 as:

in terms of concentration I couldn't even perceive the commands, when I first started. But now, as soon as our instructor issues the command, perceiving what she meant immediately and I can go into action. So, a period of time is necessary to come to a certain stage, to provide a particular benefit in Pilates... Simply, we are concentrating on ourselves while doing, anything else except it, if you do another sport, for example, supposing you are riding a bike or swimming, you may not be able to concentrate at that moment as you have a thousand of thoughts in your mind... but in order not to miss the commands of the Pilates instructor, to concentrate on the movement, you need to give all your attention... It means that during the time we perform the Pilates we think about ourselves... we don't think of anything else. We become completely detached from the world". In addition, P28 explained that " my body, especially my neck and my back, I always check myself in the movements that I believe they could be dangerous, of course, in accordance with our instructor's introduced right information.

Besides getting benefits through PM on concentration ability, some of the participants (21.9%) have mentioned no improvement in this regard. The personality traits, daily routines, and life conditions may determine the state of concentration. For instance, P2 explained her reason that she had already been so concentrated that she felt relaxed especially while working and other areas of her life. Also, P26 clarified her daily responsibilities including monotony like chores and family members that did not lead her to a complicated situations and allowed her to rest enough. Therefore, the concept of concentration did not affect her life. In addition to these opinions, some participants (9.4%) have not noticed any impact of practicing PM on their focusing ability while exercising physically or in daily life. P5 expressed her view on this manner that she could practice PM only once a week. She added that if she had opportunity to perform at least one more time in a week, she might be possibly feel its useful effects on concentration ability in her life.

5.2.13. Impact of PM on Spiritual Life

The benefits of physical exercises and sports on ensuring bodily functions, mental and social well-being, and experiencing positive changes in appearance receive extensive interest in many studies. However, the relationship between regular PM exercising and spiritual experiences and perceptions by the practitioners has not been revealed. In this respect, this section explains the notion of spiritually and participants' point of views on changes in humanistic, nature, and God oriented spiritual perceptions as a result of practicing PM regularly.

It is a common view that the concept of spirituality is mostly perceived from the point of religious aspects in Turkish society. However, the participants in the present study focused on humanistic and nature-oriented aspects of the spirituality.

Individuals' beliefs, experiences, and philosophy of life affect their point of view toward perception of spirituality. As Fisher (1998) explained, spirituality is concerned with a person's awareness of the existence and experience of inner feelings and beliefs, which give purpose, meaning and value to life. It helps individuals to live at peace with themselves, to love God and their neighbor, and to live in harmony with the environment. For some, spirituality involves an encounter with God, or transcendent reality, which can occur in or out of the context of organized religion, whereas for others, it involves no experience or belief in the supernatural.

Spilka (1993) grouped spirituality into the three categories as God-oriented, worldly-oriented that stresses addiction on ecology or nature, or humanistic, stressing human potential or achievement (cited in Fisher, 2011). To elaborate this subject, Fisher (2011) expressed the notion of spiritual health as a fundamental dimension of people's overall health and well-being, permeating and integrating all the other dimensions of health. Spiritual health is a dynamic state of being, reflected in the quality of relationships that people have in up to four domains of spiritual well-being. In personal domain, one intra-relates with oneself with regards to meaning, purpose and values in life. Self-awareness is the driving force or transcendent aspect of the human spirit in its search for identity and self-worth.

Communal domain is shown in the quality and depth of interpersonal relationships, between self and others, relating to morality, culture and religion. These are expressed in love, forgiveness, trust, hope and faith in humanity. For some, environmental domain is beyond care and nurture for the physical and biological, to a sense of awe and wonder; for others, it is the notion of unity with the environment. Transcendental domain is the relationship of self with something or someone beyond the human level (*i.e.*, ultimate concern, cosmic force, transcendent reality or God).

Spiritual well-being is associated with hope and positive moods or QOL (Fehring et al., 1997). There is a relationship between health and spirituality and the nature of health is interrelated with spirituality. Therefore health involves much more than physical fitness and absence of disease; it includes the mental and emotional aspects of knowing and feeling; the social dimension that comes through human interaction; the vocational domain; and, at the heart, or, very essence of being, the spiritual dimension. It is the spiritual dimension, which seems to have greatest impact on overall personal health (Eberst, 1984).

Happiness is one of the main purposes of people during lifespan. Spirituality is believed to be one of the sources of happiness (Furnham & Cheng, 2000) that could be attained through variety of ways like exercising physically. PM may affect the humanistic, nature, and God oriented spiritual lives of the practitioners, through creating positive transformations physically and mentally. As those transformations make practitioners to feel that the body is a very special design, PM may strengthen the bond of being grateful for God on the behalf of practitioners who have a belief in God.

Those who experience an increase in strength and performance in their bodies through PM are able to move more easily and do not feel pain, or fatigue. Therefore, they feel themselves more secure in nature with their activities related with work or social life, and their ties strengthen with the outside world. Also, those who spend time and effort by practicing PM and develop their potential of mind and body, can behave more tolerant in their communications with other parties by activating their properties of empathy. In addition to these, there are

individuals who are not interested in none of those mentioned spiritual dimensions, or do not in the need of any mental connection. Finally, it is also usual for many people to take place in physical activities simply in consequence of the motivation of acting.

5.2.14. Influence of PM on Life Style

Physical activity has been increasingly recommended to people whether they have or do not have diseases or problems to be able to enhance their QOL. Since, exercising has a significant role in increment of stamina needed for everyday life in addition to prevention, delaying, and treatment of some illnesses and disabilities. Study by Elavsky et al. (2005) indicated that physical activity is related to increases in self-efficacy, physical self-esteem, and positive affect and improvements in QOL in long-term.

There have been many studies that reflected positive outcomes of routinely performed moderate to vigorous physical exercising on physical functioning particularly in the areas of: walking and doing heavy housework in physically capable older adults (Simonsick et al., 1993), energy expenditure and health-related QOL, and decreasing hospitalizations in older community dwelling people (Kerse et al., 2005), self-efficacy and improvements in cardiovascular status, strength, and functional capacity in older adults without clinical disorders (Netz et al., 2005), improvement in QOL, cardiorespiratory fitness, physical functioning and decreament in fatigue in breast cancer patients and survivors (McNeely et al., 2006), QOL in elderly individuals with knee osteoarthritis (Corrêa Dias et al., 2003), flexibility, balance, reaction time, muscle strength, physical functioning, social function, QOL, and mental and physical health in old women (Kılınç et al., 2014), QOL in terms of having a personal time, means of expression themselves and being out of home among women (Bulgu et al., 2007), health-related QOL in general population (Bize et al., 2007), psychological health outcomes in women treated for breast cancer (Daley et al., 2007), lower limb strength and upper limb flexibility, and general and mental health in older women (Garcia et al., 2007), self-efficacy and satisfaction with physical function in older adults with impaired

lower extremity functioning (Rejeski et al., 2008), cardio respiratory fitness, and cognitive functioning in older people (Angevaren et al., 2008), and improvements in sense of well-being and energy and decrease in fatigue in seniors (Oken et al., 2006).

To be able to sustain a good health, it is essential to maintain an active lifestyle through participating in physical activities as explained in the mentioned studies. In addition to various types of physical activities, exercising PM may a safe and encouraging practise for people of all ages who seek to improve their performance and maintain their independence in performing everyday activities. PM exercises are preferred to relieve health problems and sustain physical health. Usage of some apparatus like mini and big balls, elastic band, and circle provide very economical choices for its practitioners. In addition, it includes appropriate movements for a wide range of age groups, young to old, to help them maintaining their physical and psychological vigor.

According to Smith & Smith (2005), aging process has resulted with many changes in the musculoskeletal system like sarcopenia, postural dysfunctions, reduced gait cycle, and loss of balance control and stability that emerge during lifelong. It could be possible to manage those changes through postural stability exercises like Pilates-based exercises that improve core strength and provide benefits for spinal and joint mobility, and proprioception, balance, and coordination. For example, functional disability in walking causes to some problems regarding fear of falling, loss of confidence and independence, and lowered QOL (Ikezoe et al., 1997). Similarly, as stated by P6 and P18 in the present study, walking might be handicaped because of inability to use the legs effectively by problems like a traffic accident and the postural disorders they faced. Therefore, PM could be effective to advance an improvement in functional capacity to offer a positive influence on static balance and, consequently, an improved QOL for practitioners.

A large and growing body of literature has investigated that PM could be taken into account as a way to improve QOL due to the proven benefits in advancement of endurance, muscle strength, flexibility, gait performance, mood states, dynamic

and static balance, personal autonomy, and a decrease in the time required to accomplish daily life activities in elderly (Bullo et al., 2015; Curi Pe´rez et al., 2013; de Siqueira Rodrigues et al., 2010; Özdemir & İrez, 2010; Pérez et al., 2014; Vécseyné Kovách et al., 2013; Vieria et al., 2013). Furthermore, calisthenics and Pilates exercise programs were revealed to better the parameters of health-related QOL in middle aged women (Vergili, 2012). Moreover, PM was demonstrated as beneficial on reduction in pain, disability and fear of movement, static and dynamic balance, functional mobility, flexibility, strength, endurance, QOL, anxiety and depression level, and daily living functionality in the patients diagnosed with osteoporosis (Angın, 2012; Küçükçakır 2011; Öksüz, 2012).

As well as the stated beneficial effects of PM on life styles of women participants in the present study, P19, who had been practicing PM for 15 years, twice a week, for an hour duration, mentioned a problematic issue regarding her sleeping disorder and indicated PM as a good alternative to improve sleep quality. As a matter of fact, small amounts of routine PM workout may be recognized by as a choice to improve sleep patterns and overall well-being. In this respect, studies proved the positive effects of regular physical activity on disturbed sleep patterns. To illustrate, Durutürk et al. (2013) clarified the positive effects of six weeks, three session per week Pilates exercises on sleep quality in addition to balance, muscular endurance, flexibility, cardiovascular capacity, and QOL in 9 healthy university students. Similar positive results were demonstrated by Leopoldino et al. (2013) through a 12 week, twice a week, for 60 minute each session Pilates matwork program in 22 sedentary volunteers ages of 18 to 30 years old who self-reported reduction in sleep disorders and improved QOL. Caldwell et al. (2009; 2010) also revealed positive impact of MBPs of 15 week, twice a week, for 75 minutes or 3 times per week, for 50 minutes each class Pilates and GYROKINESIS® programs, and 15 week, twice a week for 50 minutes each session Taiji quan program on increased mindfulness that accounted for changes in mood and perceived stress, and improved sleep quality.

As practicing PM regularly required participants of this study to be disciplined, it provided them to be programmed by getting a place in their daily lives. In this rhythm, sleep patterns and eating habits also became more thoughtful. Since the

physical appearance was affected positively, being pleased with the image of the body provided positive motivation for them, as well. According to Siler (2000), Pilates' development of his method evolved into a vision of an ideal lifestyle, attained only through balance of physical, mental, and spiritual. Through visualization, physical strengthening and stretching of the body, mental vigor, and improved blood flow returns to inactive brain cells. This renewed spirit of thought and movement is the first step toward stress reduction, grace of movement, vitality, and a greater enjoyment of life.

5.2.15. Influence of PM on Perceptions of People and Events

The benefits of physical exercises and sport are also associated with providing social network and experiencing positive relationships with others effectively. In this regard, sociopsychological advantages of PM may offer favorable dealing on other individuals and cases. This section concerns on changes on approaches of the participants toward people and events as a consequence of practicing PM.

Behaviors and reactions to other people and various events may show diversity with effects of different factors like personal habits, new activities and hobbies, and gaining experiences through aging process. Practicing PM as an experience may also add a new viewpoint to the issues related with other people and circumstances. Maintaining PM on a regular basis requires patience for both completing a series as the moment from beginning to end, and noticing its results in advancing time. This may affect one's point of view toward outside world, other people, and events in the direction of making better decisions by including tolerance.

Especially in Turkish society, percentage of women who exercise physically is in low rate. Therefore, participating in any kind of physical exercise besides the routines of daily life like working, doing household chores, and communicating with others, makes women feel exclusive. People who have opportunity to exercise physically in their free time, may feel more relieved instead of being stressed or tensed. Since all the movements are executed synchronously with breathing, practitioners generally feel calmer. So that the slow-paced nature of PM

may cause its participants to be patient and relaxed. This kind of a mood might transform the practitioners to behave others and situations more tolerantly and to develop empathy to others and delicate issues. Treating to others affectionately may be a result of communication with the Pilates instructor and the other participants. As the instructor motivates and gives positive feedback to the participants, this relationship may be the way of reflection of tenderness that could also be transferred to other people by the participants in a humanistic and positive approach. P26 stated that *“it taught me to have a more affectionate, more humane approach to people.”*

PM is an exercise regimen that necessitates to be motivated for every principle in a session to fulfill through concentration for attaining physical and psychological benefits. Movements in a Pilates series both alert and keep the mind fresh. Conducting an activity for a long period of time is related with features of that activity like offering pleasing and vigorous feelings to the practitioners to provide positive motivation. In fact, completing approximately an hour duration of Pilates session requires the participants to motivate themselves for improvement of focusing ability that can facilitate thinking in more detailed and finding solutions for negative situations when they faced.

Practicing PM regularly may provide benefits for systems of the body that provide contribution to become more durable, stronger, and more resilient both physically and mentally. Feeling holistically strong, flexible, diligent, and enthusiast might affect the behaviors positively to other people and events. As the health of mind and body determines the style of judgments against other people and events, these decisions can be more humanistic and respectful to nature in a consistent and balanced manner.

Additionally, the people benefited from this exercise method, can undertake the mission of encouragement others about it. For other people, seeing a number of good examples can provide a positive benefit in favor of one's own and others. To illustrate P9 stated that:

I realised after I started the Pilates that it was a discipline. When you are in a disciplined effort, I had the intention to direct other people to such a disciplined

practice or guide them. I have managed to do this until now and will continue doing so.

The human body is capable of doing many physical activities like walking, running, swimming, climbing, lifting weight, pushing, pulling, removing, and moving. In addition, it is able to think and produce solution to fulfill those activities efficiently and in a quality manner. Although benefits of the mentioned physical activities on all the systems of the body have been proved through scientific studies, there are people who choose not to act at different ages. People, who practice PM regularly experience physical and psychological benefits, may criticize the others who do not benefit from this sort of training and complaint about their physical and mental problems as P23 in this study:

I am angry at people who do not exercise... I am angry at people who do not even move their legs (laughter)... I do not understand how people do not care for themselves... One should have a self-respect for himself/herself and put this into action... It is a disrespect not to do this. Actually ... it is disrespect to the society... to the nature, not only to one's self.

Physical appearances of people may give some idea regarding their personality characteristics. An individual who has a healthy body and mind cares some basic points like having a balanced diet, doing regular exercise, having adequate sleep in order to maintain these characteristics. The positive effects of performing PM regularly on musculoskeletal system may also be visible. The individuals experiencing this change might concern with others' appearances and make observations like P25 stated that "*it may be influencing the way I look at people's physical appearances.*"

Contrary to these opinions, participating in regular PM might not cause any effect on attitudes of the practitioners toward other people or experienced events as indicated by 28.1% of the participants whose behavioral patterns might not be directly or solely affected by experiences through PM. Those participants may just consider this kind of training method to keep high their physical and mental health.

5.2.16. Influences of PM on Family Relationships, Friends, and Colleagues

This section looks at the effects of practicing PM regularly on relationships experienced by the participants with family members, friends, and colleagues and

the relevance between the notions of social relationships and subjective well-being, i.e. happiness. Later, it focuses on the features of happy individuals and possible impacts of PM on relationships of individuals.

It is mostly believed that supportive social relationships are crucial resources for society especially for psychological and social wellbeing. The centrality of social networks to successful human functioning was highlighted by Berscheid (2003) as the single most important factor responsible for the survival of homo sapiens is the relationships (cited in Lyubomirsky et al., 2005).

Literature shows that social relations and social network characteristics affect well-being, i.e. self-reported happiness (Baldassare et al., 1984); having close friends, loving parents and thoroughly having high self-esteem are believed to be important causes of happiness (Furnham & Cheng, 2000).

Good social relationship that is considered as an integral part of happiness is vital to human mood (Diener & Seligman, 2002). Experiencing a pleasant mood provides people enjoyment of activities, social interactions, and more satisfaction from them (Lyubomirsky et al., 2005). According to Furnham & Cheng (2000), social networks of family and friends are important sources of happiness. Having social support through close friends and confidants is a remarkable factor towards happiness. In this manner, friendship has been found to have one of the highest positive correlations with self-rated happiness (Campbell et al., 1976, cited in Lyubomirsky et al., 2005). According to Furnham & Cheng (2000), women participants expressed that they are supposed to need for a strong social network around them so they believe that having social support through close friends and confidants is a worthy factor towards happiness.

There have been some studies to reflect overall social support and perceived companionship (Baldassare et al., 1984; Pinqart & Sörensen, 2000), in addition to the interrelation between happiness and the number of friends and companions that people rely on. Social relations are important predictors of happiness, and interaction with friends causes to reduction in feelings of loneliness and increase in

morale (Baldassare et al., 1984; Lee & Ishii-Kuntz, 1987). On the other hand, loneliness has a major negative effect on morale (Lee & Ishii-Kuntz, 1987).

According to Doğan & Eryılmaz (2013), individuals with high levels of SWB feel good about themselves, experience more successful interpersonal relationships, their life energy and creativity increase, and their immune system becomes stronger. Thus, they become more efficient in their business life and their life spans get longer. This argument is also supported by Lyubomirsky et al. (2005) that happiness plays a role in health through its effects on social relationships, healthy behavior, stress, accident and suicide rates, and coping, as well as possible effects on immune system.

Individuals who have high level of subjective wellbeing not only feel good themselves, but also they make good interpersonal interactions, enjoy their leisure and social activities to experience more flow states, and to be more satisfied with their activities generally (Cooper et al., 1992; Diener & Seligman, 2002; Lyubomirsky et al., 2005; Lyubomirsky et al., 2006). For example, according to Diener & Seligman (2002), the happiest college students were reflectes as to be highly social, and have stronger romantic and other social relationships. In addition, they were more extroverted, more agreeable, and less neurotic.

Communication with others is a crucial way for happiness. People can express themselves more honestly and effectively in communication, which lead to more satisfying personal relationships (Winsor, 1999). Cooper et al. (1992) pointed out that satisfaction with social activities and a number of activities with groups were positive predictors of SWB that defined as life satisfaction, and experience of positive and negative affect. According to Pinquart & Sörensen (2000), the quality of social contacts shows stronger associations with SWB than does the quantity of social contacts. Having contact with friends when compared to family members. is more strongly related to SWB. It was also supported by Öpözlü et al. (2006) that many people consider preferring recreational activities as a means of socialization and they mostly participate in recreational activities with their friends (60.3%), individually (20.6%), with their families (16.5%), and in other ways (2.6%).

Participating in physical exercises and sports is one of the ways of socialization. Being with others who enjoy the same activity is important for leisure activities participants. When the physical exercise programs are designed to focus on physical inactivity concerns and are desirable, pleasant, and attainable would be logical choices for many people.

It can be supposed that PM sessions constitute close interrelations in terms of social and individual aspects with family members, colleagues, and friends, so those sessions help people not to feel alone. Climate of the sessions may help to improve interaction, collaboration, and conversation among them. Including planning the time, it ensures mutual adaptation and communication between the members of the group until the moment the Pilates session starts and ends. It also provides potential to spend time for other activities that can be done together in social life. To illustrate, study by Babayiğit, (2009) indicated that Pilates exercises performed during 12 weeks of three times a week for one hour had significant positive effect on mental and social life of elderly women.

As well as practicing as a single, a PM session can be practiced in a group such as with family members as a way of sharing the social life. When performed in-group settings, PM gives opportunity to share that time and movements together with family members by making a difference except the routine meetings, or activities. Because the shared time is preferred to have a positive effect, it may transform into an unprejudiced and desired participation. In addition, other parties, who notice the positive physical and mental differences experienced by the participants by the help of PM, may be triggered to participate in similar activity. To illustrate, Archer (2009) cited the report of National Center for Complementary and Alternative Medicine (CAM, 2007) in the U.S.A. for adult participation that 38% of the population dealt with mind-body practices especially with deep breathing, meditation, massage therapy and yoga. Besides, CAM using among American children was 12% and it was mentioned that when their families practice CAM therapies, children were five times more likely to apply them.

Moreover, performing PM along with the colleagues may give opportunity to know each other better and to live a social environment except sharing and solving

the work-related issues. As the hierarchical structure of workplace does not continue in those Pilates groups, it is believed that the participants may feel more comfortable with others.

As PM can be practiced either in a group or privately; most of the women's preference for socializing opportunities offered by Pilates method is evident in the findings of the present study. They stated positive impact of practicing PM with their colleagues (87.5%), friends (78.1), and family members (75%). Female participants in study by Leung et al. (2008a) mentioned similar socializing opportunities for their preference to join into MBTs, which could be performed socially or privately, were enjoyable to be involved in social interactions with others like family and friends as well as physicians.

5.2.17. Comments Coming from Others as a Result of Participation in PM

Positive feedback commonly motivates many people regarding their physical and personality properties that are prone to take a good turn by the help of some activities and occasions. Socially, individuals mostly need to positive comments and are observed by the closest people like family members, colleagues, and friends who frequently motivate them towards life. Exercising physically is one of the ways for positive transformations, therefore practicing PM regularly may lead to some improvements in nature of physical body and personality. Those changes are provided through feedback from others possibly on postural progress, development between the proportion of upper and lower body, improvement in muscle mass, and decrease in fat ratio. In addition, practicing PM regularly may draw attention in all relations as a result of its positive effects on personality traits of self-confidence, happiness, and emotional state. This section introduces opinions of the participants who got some comments on physical and psychological improvements from milieu as a result of participating in PM regularly.

Looking slim and fit is a physical trend among people contemporarily. Reaching an ideal body form depends on various criteria like genetic, eating habits, and sedentary or active life style. Having a better body shape and functionality is

attainable through combining a physically active daily routine with a balanced diet, good quality and efficient sleep, and stress-free life style. Regular physical exercising like PM may help to lower body fat ratio and increase muscular tonus through improved strength, endurance, and flexibility. As well as its physical benefits like reducing pain in joints and muscles, and increasing mobility, PM offers its practitioners a better body shape and appearance such as looking slimmer, healthier, nicer, and tighter. Besides the opinions expressed as a result of the comments by others given on Table 19, some of the other participants' views regarding getting into a better shape were introduced respectively:

I got feedback in the sense of physically that 'you look better... I got it in the meaning of I am too fit (P8).

I am definitely getting very positive feedback from my friends, in the business community. As a general assessment, all says that Pilates is good for me... my body is more balanced, it looks shapely (P11).

For instance, I wear a tank top, people say your shoulders have changed... or... people who do not know me ask do you have a sport experience (P14).

I am generally getting positive feedback... I listened to, I heard the most is I do not show my real age. I wonder that this can be due to Pilates (laughing)... A month ago, a discomfort started in my hip. The doctor said that it was arthritis, it might result from a trauma, or genetic... the results were not so great; there were cysts, protrusions, deformations, tears... However, when the doctor examined, he found me very good and he/she also said that I owed it to Pilates (P29).

Having a better posture is another outcome of participating in regular PM exercises. Just because, the improved strength of the muscles and flexibility of joints, tendons, and muscles enable one to reach a proper alignment. An optimum posture is ideal for fulfilling the daily routines and physical activities effectively. Participants in the present study expressed that the betterment on posture as a consequence of PM was noticed by others and told them as a feedback and positive comment as introduced sequentially:

I have heard from my friends that my body is fit. In fact, I have felt it myself... maybe my form... my posture has improved more... because, when you do more, you listen to yourself more, look after yourself, return to yourself. Therefore, the upright position while walking was effective... helpful (P9).

Now, I stand more upright because the people around me do not say anymore. I talk to myself, presumably, I stand upright (P16).

I used to have scoliosis. When I went to the doctor, he/she said that my back was very successful (P23).

Everyone says, both my back has strengthened and I stand in proper posture (P25).

Effects of exercising physically are seen in activities of daily life, work life, and leisure time. Targeting the core region and the limbs, PM also influences its

practitioners regarding being more energetic and vigorous. For example, P6 stated that she had some comments on her walking ability when compared to the past. Although walking could be considered as one of the basic activities of a healthy person, it is a challenging activity for her due to a traffic accident she experienced when she was a child. It caused her injured and lost a big percentage of muscular tissue in her hip and thigh, had many operations, and left her imbalanced while moving. As a consequence of practicing PM once a week for 9 months, she had some advancement in walking at a fast pace in her workplace that was realized by her colleagues.

As a professional or amateur, individuals may get benefit from PM through enhanced strength, endurance, and flexibility that would be helpful for the proper technique as mentioned by P14. While playing volleyball, her teammates made comments on her developed technique that could result from practicing PM for 8 months, twice a week. Additionally, the perception of age and capabilities of individuals depend on different factors. The aging process commonly cause some individuals to have lack of energy. However, practicing PM regularly 4 to 5 times for 15 years probably reversed this happening as expressed by P16 who got feedback from others as being very energetic at her age of 62. In addition, P18 and P25 explained sequentially that:

I got comment from my colleagues... they say I am more dynamic. There were some who asked how do you deal with too many things. Not knowing I practice Pilates, they have been asking me lately how are you so calm, how do you manage to explain so many people for a long time? Maybe, subconsciously, it is the effect of Pilates without knowing it, I don't know. Recently, they have started to asking this how do you resist? They tell me that I'm more energetic.

Many people prefer the others healthy, vigorous, productive, and happy while communicating and sharing the life privately and socially. A few participants of the present study mentioned the positive comments from their milieu as a consequence of practicing PM regularly on healing of joint problems and relieving some bodily pain as well as realizing the advancement of flexibility in movements of daily routines. These comments seem to encourage and motivate the participants to keep performing those exercises in the long run.

Besides pointing to the physical improvements through the comments by family members, friends, colleagues, and the Pilates instructor, the participants also got feedback about influences of PM through performing discreetly, ambitiously, and attentively on their psychological well being. The main point received emphasis is having a happier and more positive outlook that might be resulted from relaxed, slow, easy, and non-strenuous nature of PM series. As the participants stated, they perceived by others looking more relaxed and happier, behaving more affectionate and warmer, having a more positive and mature temperament when compared to the past. In this manner, P7 expressed that:

Yes, I am getting (comments). For example, like a few of my closest friends... Oh, tomorrow is Pilates? You are doing so well, it makes you feel good. Also, P15 mentioned that "sure, a few of them told, explained... they said that I am more mature when compared to the past.

It might be a part of social life to be praised by others what you do, sustain, and achieve. Being admired, appreciated, and accepted are nature of most of the people. Planning, performing, and conducting a physical exercise like the Pilates method for a period of time may get attention of milieu to appreciate and provide motivation its practitioners as the same in the present study. Getting some positive comments provide enthusiasm and determination for sustaining this kind of physical activity. For instance, P14 expressed the comment from her friends as:

they say to me 'amazing! When you are doing them' or 'really? Haven't you stop doing for a while? Have you performed it for 8 months? Do you practice Pilates two days a week, really?' People are really amazed. Probably, there are not many who can do that, or they want to do but they cannot.

In today's life conditions, being in a rush, working or studying for long hours, concentrating mentally, forcing body physically may cause some individuals to face with stress and anxiety. The methods of individuals are various to get rid off these stressors and participants of this study had some positive feedback on seeming calmer and more tranquil as a consequence of PM which possibly lower their level of stress, anxiety, and nervousness to manage issues of life including daily routines, interpersonal relations, work place, and educational environment.

There have been some studies that support the findings of the present study. To illustrate, the majority of respondents in study by Leung et al. (2008a) expressed

that their family and friends were very supportive about their use of mind body therapies. Also, Demir (2013) stated that as a result of participation in 8 week, 3 times per week, an hour session of PM exercises led to improvements in physical appearance and self confidence. Additionally, it was stated that those exercises caused women participants to make them mostly precious to be admired by others. Moreover, physical, social, and psychological effects of the Pilates mat exercises were observed after 6 months participation in a randomized controlled trial by Cruz-Ferreira et al. (2011) who stated that women participants had improvements in their perceptions of appreciation by other people.

5.2.18. Physical Changes Created by PM in Undertaking Daily Tasks

This section presents certain physical changes created by practicing regular PM exercises and looks at studies focusing on the relationship between effects of exercising physically while undertaking daily tasks.

Importance of exercising physically and recommended types of exercises to undertake daily activities during aging process and presence of some physical and psychological issues has been mentioned in some studies (Akyol et al., 2016; Busch et al., 2011; Jones et al., 2014; Karan, 2006; Leung et al., 2008a).

PM as a mind-body exercise approach, designed to build up the body symmetrically in many aspects necessitates core stability, strength, flexibility, and control on posture and breathing (Wells & Bialocerkowski, 2012). Strengthening the muscles and improving the flexibility by the help of this method may enhance the fitness level and compensate the asymmetries in body. Concept of functional fitness might be viewed as a set of physiological and physical capacity and health-related skills to be improved to perform the daily life activities independently (Pérez et al., 2014).

Many participants in the present study declared that they felt moving more easily (40.6%) and using the body more consciously (40.6%) while fulfilling the daily tasks as a result of PM. Since they had chance to train their bodies despite some physical limitations, they seized a chance of moving comfortably through PM that

offer modification opportunities to its practitioners. For example, P27, who had been practicing PM for 2 years twice a week suffered from rotated vertebrae and scoliosis, experienced more comfort in her daily life while walking, bending, standing up and moving.

Thanks to the transformations in physical capacity by practicing PM regularly, the practitioners may feel both energetic and painless while doing some daily routines like climbing up and going down the stairs, walking, and carrying weight. For example, Pérez et al. (2014) noted that practicing PM for 12 weeks helped old women to improve their performance and to take them less time to perform the activities of their daily lives. Similarly, in the present study, 31.25% of the participants stated that they felt more energetic and stronger regarding the activities of daily life. P14 expressed her point of view in this subject as:

We go cycling with friends, for example, everyone falls into pieces the following day... they get pain here and there, stiff muscles, they complain that their legs are aching, they could not sleep over night. I do not get any of those.

Decrease in level of pain (12.5) was stated as another positive outcome of participating in regular PM by the participants of the present study. In a similar way, it was recommended by Gladwell et al. (2006) that a program of modified Pilates exercises might be advantageous for back pain as it includes functional static-dynamic resistance exercise to enhance core muscle strengthening and endurance and to increase sensory motor control of upper body and movements of limbs. In this manner, P29 expressed that:

As I have been doing it for 17 years, I must be the same for 17 years. However, there were quite some changes compared to the previous period. I have had suffered a lot from back pain and bad posture, they all have gone.

Some people who suffer from pain are afraid of participating in exercises for fear of increased symptoms of pain and fatigue. However, decrease in physical activity causes decrease on muscle strength and muscle endurance. Hence the muscles become more prone to traumas and this situation leads to a vicious cycle. In order not to aggravate symptoms of individuals with pain, moderate level intensity and applicable physical activities might enhance the QOL of those individuals (Akyol et al., 2016).

As a safe exercise model, PM has also shown as a beneficial training on pain, functional status, and QOL in patients with ankylosing spondylitis (Altan et al., 2012) and osteoporosis (Öksüz, 2012). According to Notarnicola et al. (2014) some people with low back pain (LBP) avoid attending physical activities because of the possibility of getting worse of pain and disability. Therefore, they demonstrated positive effects of practicing 6 months, 5 times a week and an hour duration daily Pilates exercises in comparison with and not performing any physical exercise in 60 people with LBP. The results showed improvements in Pilates group with increase in physical and social functioning, general health and vitality and decrease in disability and pain. In this respect, also Devaşan (2014) identified the efficiency of 6 week, 3 days in a week, 1 hour Clinical Pilates Therapy (CPT) in comparison with home program on reducing fear of movement, defined as kinesiophobia, and pain in 34 patients with rheumatological diseases.

In addition, there are studies that showed evidence to support effectiveness of PM on flexibility, dynamic balance, and muscular endurance in healthy people (Cruz-Ferreira et al., 2011b), balance in older adults (Barker et al., 2015), muscle strength, dynamic balance, flexibility, reaction time, and QOL, and anxiety in elderly women (Babayiğit, 2009), general health condition in elderly (Pourvaghari et al., 2014), falling risk, dynamic balance, reaction time, and depression symptoms (Siqueira et al., 2010), neuromotor fitness, flexibility of lower limbs, and static and dynamic balance in elderly people (Cancela et al., 2014), functional autonomy and static balance in elderly (Pérez et al., 2014), and dynamic balance in healthy adults (Johnson et al., 2007).

According to results of the mentioned studies on effects of PM and findings of the present study showed that PM is an effective workout option for the practitioners in performing their daily life activities more comfortably through improved physical capabilities, becoming more kinesthetically aware of their bodies, decreased level of pain, and improved posture.

5.2.19. Impact of PM on Efficiency at Work

Work life constitutes a great deal of time and responsibilities of daily living of many people. To be successful, productive, creative, supportive, and cooperative, working people had better to be energetic and have ability to handle the work related issues for themselves and benefit of society.

Resilience physically, psychologically, emotionally, and socially enriches individuals' work performance that could be improved through some activities like having some hobbies, joining various social groups, and exercising physically. Practicing various types of physical exercises on a constant and regular basis besides combining with balanced nutrition may enhance physical condition for everyday activities. As a mind-body exercise, PM may ensure efficiency at work as its provided contributions to the individuals.

As stated by 28.1% of the participants of the present study, individuals may feel and behave energetically as a consequence of participating in PM that mostly increases muscular strength, flexibility, and endurance, and improve breathing. Amelioration in physical fitness may offer the chance of using the body more frequently like climbing the stairs instead of getting on the elevator, sitting or standing with a proper posture-neither flexed nor extended- while studying or working, and creating the opportunity of activating the postural muscles.

The practice of PM is thought to be beneficial for individuals who have to work in mobile, sedentary, sitting, or standing positions. Increase in concentration through participating in PM as mentioned by 18.75% of the participants of this study might be considered as a result of improved strength of the systems of the physical body as well as enhanced awareness and patience while executing the movements. Because, stronger musculoskeletal system, immune system, and cardiovascular capacity may provide concentration ability for prolonged periods of time for work related issues. Especially, when the muscles that support the spine are strong, it may enable one to be more resistive against asymmetric postures that result from working conditions. Hence, quality and duration of concentration increase and work performance is affected positively.

According to Tobiasson et al. (2014), as sedentary life styles include the risk of possibility of diseases and other medical complications, focusing on awareness management and devices for encouraging physical activity considered as crucial. Therefore, integrating physical movements in the design of future office work tools may have considerable positive effects on public health. This comment is parallel what P31 stated in the present study that:

When I work and spend too much time in front of the computer, I would not notice the pain in my shoulder. I could sit in this wrong posture all day... Now, I notice it immediately and correct my posture or take precautions to compensate for it through stretching etc.

Although the offices might not be suitable to move more easily, experiencing PM possibly encouraged this participant to use her facility, furniture, and things in a more effective way. At least, by using the chair, table, wall, or other furniture, it is possible to perform some stretching exercises. As well as bringing to mind sitting in an upright position while working is also a good feedback to keep the correct posture that is crucial for physical health.

Individuals may face various work related stressors that are necessitated to be overcome. As a course of its nature, PM are executed in a slow pace that may cause its practitioners to behave patiently, to think on every phase of the exercises consciously and more focused. There is no need to be in rush during a Pilates session so it may transform the mood of practitioners in a calmer mood. Although there is no pause between the movements, practitioners have enough time to decide on performing the proper actions. As a result, both calming down and being patient might help the working people to act prudently when they are exposed to stressful situations at work. In this regard, P2 expressed her opinion as *“afterwards, (completing a session of PM) I am continuing my work in a more comfortable and relaxed way. More precisely, I am continuing my work in a feeling of calmer, happier, more relaxed.”*

Working condition of each profession is different so people may remain in the same or various positions for a long time to fulfill their responsibilities related with their professions. For example, some jobs require standing in a fixed or moving way for a long time, some of them necessitate sitting for long hours, and

others involve both staying in a sitting and standing positions. Gaining physical strength through PM seems to be advantageous to some of the participants in the present study like having stamina, feeling stronger, and consciousness of correcting the wrong posture or avoiding discomfort during working time. Similarly, Kim et al. (2015) revealed the positive effect of an 8 week, 3 times a week, 20 minutes per session of an exercise program for posture correction on relieving pain in shoulders, mid and low back in 88 university students. In this manner, in the present study, P24 who is a dentist expressed that:

In terms of my profession, because I work in the same position leaning constantly, also as an occupational disease, I had already felt my neck muscles shortened too much. Although there was not a diagnosed hernia in the neck, I used to feel my muscles very stiff. I feel them quite relieved now.

The time allocated to practice PM can be considered as people's special time apart from their work and private lives. In this respect P27 in the present study stated that "it motivates me as I spend all my time with the exception of weekends at work." During this time period, giving up the thoughts of business related issues while performing the exercises might provide motivation for clearing and refreshing mind and solutions may arise toward achieving the responsibilities in a more motivated perception. To express the impact of PM on efficiency at work, P14 supported that:

My mood when I come here (to do the Pilates) and when I return can be totally different. I may have come up with solutions in my mind, I am out of that mindset and tell myself -why did I make that issue up-... Having time off also has an impact... I get out of that mind set and look at the matter again.

Therefore, the findings of the study seem to be useful to improve the work efficiency of adults through getting benefits of practicing PM on being more energetic, increasing concentration, coping with stress, improving strength and providing motivation.

5.2.20. Impact of PM on Starting a New Activity or Taking Risk

This section looks at the impact of PM on starting a new activity or taking risk from the participants' point of views. Experiencing various physical, mental, and social activities, and attending in different social groups may offer individuals

some contributions according to their needs and expectations. Like all regular and programmed physical activities, PM also enforces an individual to go beyond his/her limits by taking out of the physical comfort zone. Practicing PM regularly necessitates self-discipline, a well-organized schedule, time management ability, making a sacrifice of daily activities and milieu when required. Bodily awareness, mind-body coordination, and physical control increase with recorded progress during workout process. Performing PM may provide its practitioners physical, psychological, emotional, and social advantages like feeling physically fit, mentally clear, emotionally healthy, and socially interactive. Thanks to this method, they may have opportunity to recognize their body and its limits, and experience what they can do. It is seen that through PM, the participants were able to improve their self-awareness that made them to be enthusiastic and venturesome toward the areas they had feared to take a step before. This might be encouraging for them to start multifarious activities related with other physical exercises and activities of social life as some of the participants pointed out respectively:

Performing this, of course, proves the feasibility to be able to do other things (P9).

As I practice the Pilates, I feel myself stronger, more motivated and my muscles in better shape. I also try to do other sports during the week... I spent time on Kangoo Jumping for a while, I ride a motorbike, I join races. And the Pilates really has an impact targeting the muscles I use when I am riding in right way... I believe it increased my success on that front (P11).

I thought about even getting back to tennis. Because I loved playing it, if I can get stronger... if my muscles can get stronger. Therefore, it encouraged me (P12).

As I have found out what I could do and I could not do, I think it has a serious effect (P16).

I feel like I can do anything... maybe my body will not let me because of my age, but the feeling of I can do has definitely arrived (P18).

Identically, in a study with breast cancer survivors (Martin, 2017), PM was characterized as promoting body awareness and sensory reintegration and considered as a precious complementary care facilitator to establish a new normal of physical ability and integration for the practitioners by addressing limitations, weaknesses, and imbalances according to the level of expertise of the practitioners.

PM which is special and limitless as can be modified for physical features and capabilities of practitioners, results in trust on its practitioners' bodies through improving their potential safely. In this manner, P32 pointed that:

If we are going to talk about a sporting event that requires a new physical activity, really, as I managed to make good use of my body a little bit more in a safe way, it feels the physical strength like I can do this too... ” (P32).

Having an immediate family, sharing the games played with kids enhances the quality of relationships. Usually, children prefer and enjoy the adults to join their games when those adults are physically capable of acting in a good performance. In the present study, P14 with two children stated that:

Since I worked out, my body got stronger, for example we were jumping rope with the kids the other day... I needed to jump and step on the rope at the highest point... I could not do it... I was scared to do it, to jump that much... I was scared to tumble, I used to do it a lot in the past... Now... I feel that I can tumble over without fearing... maybe I do not tumble but I work my body out very close to that... I realise that I can also do it and this changed the way I play with my kids... I play with them more courageously.

It is one of the most preferable aspects of PM that can be practiced by many people. Because, this training method could be modified as both easy and complicated, soft and hard, low intensity and high intensity for the needs of its practitioners. Regarding participating in physical exercises and sports, it is nature of some people to use their bodies till to their limits willingly while the others behave protectively, or unwillingly. Getting stronger, increasing stamina, improving flexibility, enhancing coordination, and keeping motivation and concentration for a longer period of time are some of the positive results of practising PM regularly. Combination of those features may encourage the practitioners to be curious and willing for new activities, also the physically limited ones. For example, due to her weakness in one leg as a consequence of a traffic accident, Participant 6 used to act self-possessedly regarding the physical activities. Later on, improvement in leg strength by the help of PM made her to focus on various activities like walking and even jogging. Moreover, P26 expressed her thoughts regarding her attention toward other activities after being convinced her ability to perform the diversified movement modifications in the Pilates sessions:

I see my friends, in the Facebook, doing yoga... I think it also... I say I wonder if I invited a masseur to home and did some movements for my body with that masseur. I think such things for sports, my muscles, my bones. Because I have more trouble in my bones, I plan to do something for them ” (P26).

In addition, P31 mentioned the possible positive effect of practicing regular PM on deciding to do a different enterprise:

Absolutely... taking risks remind me of... I am a person of a little bit anxious in my normal life. I feel my concerns went off a little more... For years, there were some things that I have decided related with life. For example, like writing a story... This year I started to make them... this could be the effect of Pilates, or, but it could be a coincidence, too.

Practicing an activity in a group setting prevents the feeling of loneliness especially in older ages. Instead of becoming isolated and retiring into oneself, the Pilates practitioners may feel themselves physically and socially strong to be encouraged trying new things especially during or after older ages. From this aspect, Participant 30 explained the positive contribution of the PM that:

In mid-life, people advise you to try new things, you are frightened to try new things at certain ages. But I am courageous... I can do it... I am not afraid. PM may make me more social, you mingle with people more easily. As you get older, one gets withdrawn into his/her shell. You should not let this happen.

It is also one of the other positive results of PM to improve competence physically and mentally that may trigger off the dosage and interest to try other physical exercises like running as P7 stated although she had never taken part in such an activity. In addition, P27 mentioned her interest on dancing to try it again because of her present experience on being able to practice PM at the age of sixty-two.

Being aware of the improvable capacity of body may serve one to be brave, willingness, volunteer, curious, and excited to try new activities. It is one of the ways to enhance the strength, endurance, flexibility, coordination, motivation, and concentration abilities through a physical exercise regimen is PM. The feeling of achieving a targeted task makes its practitioners to feel self-esteem, and self-confidence. A person, who is mentally, physically, and socially healthy, needs to prove his/her existence with various activities and achievements that may revitalize trying varied tasks. As Gökner (2017) stated that when an individual forms control and domination over world of his/her own with his/her body and behavior, self-confidence develops. The individual's courage enhances with increase in self-esteem. According to Durmaz & Ören (2017), people encourage to do a task once they are convinced to have necessary things to be successful. In this

respect, P21 expressed that *“of course, it happens. I mean possibly more confident.”* Additionally, P19 mentioned that:

as your self-confidence increases, automatically your confidence for taking risk or going into a new business also increases. Under such circumstances you get to be more entrepreneurial, you approach a matter more positively and get into it.

Besides expressing the beneficial contributions of practicing PM on attending new activities or taking risk in the present study, some of the participants (21.9%) had not experienced any specific noticeable impact of this aspect. For instance, P28 explained that those exercises had not put any significant influence on changing her behaviours and attitudes to start a new activity, or take a risk as she was short of time to exercise enough as she expected. Also, P29 mentioned about her personality trait as not being quite different like neither courages nor timid, therefore, it was clear for her to determine PM as noninfluential on her behaviours and decisions.

5.2.21. Disliked or Problematic Aspects of PM

This section looks at the disliked or problematic aspects of PM that were perceived by the participants who had been facing for the time period of performing it. There may be different reasons of people to dislike any kind of activity while practicing it firstly or during the period of time. When people try, act, perform, or come across a new activity, they may imagine or suppose that activity as difficult, challenging, complicated, or hard to overcome at the beginning. In this manner, P4 expressed that *“I used to think as I was doing something difficult.”* Her tenderness and anxiety could arise from experiencing PM as a new physical activity, which might have led feeling of exhausted physically and mentally while trying to understand and practice them. However, after getting familiar with the movements of PM, she also stated that she mostly enjoyed and performed them easily.

Each individual has various capabilities on strength, endurance, flexibility, coordination, motivation, and concentration. Therefore, the practitioners could face with some challenges initially while practicing PM with involvement of all these characteristics. Sometimes, a beginner level practitioner’s stamina may not be competence enough to keep performing the movements efficiently as expected.

To illustrate this, P13 stated that “I felt that I was getting exhausted while exercising in the beginning...” Because new movements necessitate more effort till to achieve adaptation for correct execution. Also, P14 mentioned her disturbance due to the movements performed in prone position by using arms that might have strained when the extension and hyperextension abilities of the vertebrae were diminished; the strength of back, hip, and shoulder muscles were not well-developed, and the abdominal strength and flexibility were limited. However, after having a period of time with many repetitions and getting stronger, the practitioners get familiar with those movements and are capable of practicing them easily and properly while enjoying.

Physical, physiological, and psychological diseases, disabilities, and injuries may lead to tenderness, anxiety, and kinesiophobia for instinct of self-preservation, as well. For example, when the difficulty level of the movements in a Pilates series is above capabilities of the practitioners, it might make them feel unhappy and unmotivated when they could not perform those exercises properly. In this manner, P4 mentioned that “*most probably, I think, it was a challenge I created in my mind by myself. Because in every movement I wondered if it would hurt my back, how I could do this, I would be forced, there would be some pain.*” Furthermore, P23 explained that she had not been enjoying all the movements that were irritating and tiring especially including legs and knee joint as she had a knee injury in the past. Although some of the movements discomforted her, she did not lose her motivation to perform PM sessions. Additionally, owing to the aging process, individuals might face some problems in their joints and soft tissue that may inhibit them to act easily, freely, comfortably, pain free, and efficiently. For instance, P29 expressed her view that she time to time felt comfortless and difficulty in practicing PM appropriately due to the age related deformations in her vertebrae.

The participants in the present study also put emphasis on several problems related with duration, time, frequency, and venue of the PM sessions. When an activity is hard, complex, or unpleasant for personality traits and capabilities of an individual to complete, that activity may make the individual perceive the time longer than as usual. If the performed task is attractive or preferable to achieve, the individuals

mainly might perceive the time as faster than it is in real. In other saying, the individual mostly lose his/her time perception as if it passes fluently or slowly while performing something entertaining or boring, challenging or basic, complicated or simple, interesting or ordinary, and enthusiastic or compulsive. As one of the disliked aspects of PM, P4 explained her reason of feeling the time as longer than usual during the sessions that those exercises were not the familiar for her to be able to perform in a fluent way. However, she added that the time perception had changed after being advanced while executing the movements: *“in the beginning it would feel very long... but nevertheless finishing such a long session used to make me happy, I used to feel like achieving such a challenge.”*

The time of the PM sessions also discomforted one of the practitioners. While some individuals feel themselves more comfortable and disciplined in their restricted schedules, the others may feel stressed or anxious as being in a rush to get to place that necessitates to be ready on time. In the present study, P31 had been performing the sessions in a group setting during lunch hour that she expressed her feeling of delimited to be have to bustle: *“ I wish we had a little bit more time. We perform it during lunch hour. I wish the duration would be longer.”* In addition, P19 expressed her point of view as being problematic on the time of the practicing the Pilates sessions. According to her, everyone has various periods of time to behave efficiently or inefficiently for completing, achieving, or performing different tasks such as PM exercises. In order to get benefit and be effective in those tasks, one had better select the most appropriate time like in the morning, at noon, in the afternoon, or in the evening to practice them.

In addition, although it was not exactly a problem related with PM, P20 stated insufficiency of practicing the sessions once a week. On the other hand, she added that exercising weekly still kept her physical condition up: *“having one day a week is maybe a little less, but it is all right for me.”*

Preferences of individuals while performing physical activities and sports depend on their habits, physical and mental capabilities, economic conditions, and opportunities related with venue of those exercises. For example, in the present study, P31 explained the advantage of practicing the sessions outdoor when the

weather condition allowed it, especially for fresh air. Instead, the Pilates sessions practiced indoor were not so attractive as the comfort in open air: *“practicing indoors during the winter makes so much difference... In the outdoor area that we perform is much more efficient... I find it much better to breathe, etc. Unluckily, due to the venue problem.”*

Additionally, 9.4% of the participants considered the other practitioners of Pilates sessions as problematic in some aspects like their numbers in the group and their attitudes. Workout by one to one or with small groups is considered as making the participants feel more comfortable and safe. There might be some handicaps of crowded Pilates sessions for its practitioners and instructors, as well. The findings revealed that the workout that was performed in crowded groups were not effective due to some reasons like comparisons among practitioners and disruption of care of the instructor on practitioners. Concentration, control, accuracy, flow, and proper way of execution of the movements might be not sufficient and efficient for both parties. In addition, selection of the movements in a Pilates series possibly would not be totally appropriate for average age of group and physical properties of each practitioner. Two participants drew attention on account of disadvantage of the crowded Pilates classes stated that *“I was not aware of how that much difference could be happen between small group class and crowded group class... The subject that I emphasise is a very competent instructor and a small group. Because, when you do not perform the movement correctly it has no value... My greatest awareness was that. I had never thought how much difference could be happen in small group classes.”* (P4). And, P9 emphasized that *“last year I attended 3-4 crowded classes. I could not get much out from them.”*

Another disliked aspect of the group classes was comments of some practitioners for the others. In this manner, P7 stated that she was in trouble with those practitioners' comments on others' physical performances while practicing the sessions: *“it is not about the Pilates, but for example people commenting about the others' exercise performances. This is something negative for me.”* This might negatively affected motivation and concentration of her to get enough positive results through performing the movements as expected.

5.2.22. The Most Attractive Aspect of PM

This section introduced the most attractive aspect of PM experienced by the participants through regular practicing. There are some appealing aspects to conduct PM long-running for the participants such as following the movements easily, advancing the difficulty level of movements that require coordination as they become stronger, and perceiving the positive effects soon. Some of the issues that attracted the attention of participants while performing PM are of exercising the large and small muscle groups mostly in supine position at slow pace, with few repetitions, and low to moderate intensity. In other words, some of the attractive aspects of PM are not to cause an excessive load on the joints, not to be coercive in the sense of effort, and to be able to performed without need to any tools. Each individual can be strengthened through the motivation of sense of accomplishment to overcome difficulties in life.

Individuals concern about various attractive areas regarding continuing a hobby, a duty, or a routin, for example, practicing a type of physical exercise like Pilates method. In the present study, the respondants were impressed by PM for their benefits, content, teaching method and personality characteristics of the Pilates instructor, execution in a group setting, practicing in open air, and similarities with some physio and yoga movements.

When these themes explained separately, advantages of the movements in a Pilates series grouped under the sub-themes of physical benefits and psychological benefits, and improvement in body consciousness. Various physical exercises are preferred for their visible and perceivable positive impacts on physical appearance by many people. In the same way, PM leads to some reasonable and convincing transformations for its practitioners, especially, the physical changes that may result from getting stronger of most of the muscle groups even the tiniest ones through different, modifiable, and well organised movements as P28 stated “*I believe that Pilates trains every limb of the the body.*”

Also P32 mentioned that:

There are several muscle systems in our body, of which we may be aware or not. We are able to contract or work some of them voluntarily, however the others work involuntarily. But, I recognize that we do not use even most of the muscles that work voluntarily and the day after practicing some special movements, I feel soreness in muscles, in various parts of my body, or I feel that I started using them. This gives me pleasure and fun.

Strengthened muscles, particularly the abs and the lower back, offer control and balance on movements, increase in muscle tone, and a more active body. P21 expressed that:

The best thing, really, is to have a much more dynamic body, a better shape... I think, is very appropriate for my body. And, Participant 16 mentioned her view regarding the most attractive aspect of the Pilates method as “*While at the same time, toning your muscles, looking fit.*”

Instead of being complicated and necessitating a well developed coordination ability, PM exercises are quite easy while executing them in a controlled, slow, and fluent way. The most important reason for improving the strength, endurance, and flexibility of body through each movement is to work both core area and the limbs simultaneously which put a great impact on all contracting muscles. In this subject, P18 emphasized her opinion as:

Feeling every muscle in my body... that sounds very interesting to me. Pilates makes me very happy as it makes me feel the muscles that I did not know so far there were those muscles.” Also, P9 explained the most attractive point of PM as “*feeling my body healthier*” and P20 stated that “*I can feel my muscles getting stronger; the emphasis is mostly on them. This, here, matter of shoulder, abdomen, tightening the hips, I am interested in them.*”

Stretching the muscles, tendons, and joints give feeling of relieving as it provides more comfortable movement ability. It is nature of PM that mostly include the aim of strengthening, enduring, and flexing the core region and limbs. In this regard, P4 explained that “*this relaxing property that attracts my attention the most... Flexing my muscles and having a fit looking body.*”

Besides the physical benefits of the Pilates method that attract a great attention by the participants, they also expressed its psychological benefits for them. In fact, its physical and psychological effects are inseparable as stated by P3 and P21

sequentially *“first of all, for my health, then for concentration at work”* and *“having a more dynamic body, toned body. At the same time, it feels good for my soul.”* As mentioned in the attractive point of the exercises in terms of physical benefits, relaxing property of PM made the practitioners enjoy while executing them. To support this view, P4 mentioned that *“this is the relaxing aspect of it. In other words, it is very relaxing and enjoyable, great.”*

Similar to many physical and psychosocial benefits of PM reported by participants of the present study, comments were expressed by cardiac patients in study by Leung et al. (2008a) on effects of MBTs. Those participants experienced an intrinsic motivation toward practicing MBTs including personal interest, positive expectation, and need for self-care, self-motivation and self-discipline, and need for a simple, low-impact, and relaxing physical activity. Also, results of study by Leveille et al. (2005) resemble to findings of the presents study in some aspects that participants perceived logistical benefits of MBTs, which were practiced because of their non-strenuous and low-impact properties, were compatible with arthritis, joint stiffness and muscle pain.

Improvement in body consciousness was considered as another attractive point by participants of the present study. An individual, who conducts regular and/or various types of physical exercises and sports, is expected to be aware of how to use his/her body properly, delicately, and protectively. Taking part in any kind of physical exercise implements individuals concentration, motivation, and consciousness by using their bodies in different forms, angles, pace, intensity, and repetitions. PM is one of the ways to train body and learn its limits to be able to improve more as some of the participants expressed respectively *“it was useful to learn how to use a certain power”* (P5) and *“it teaches to be friend with your body... using it nicely, it improves body consciousness”* (P25).

As well as the benefits of the movements, the respondents also emphasized their opinions for the most attractive aspect of PM under the theme of content of the movements, which included liking all of the movements, enjoying especially the stretching movements, being pleased for variety of movements, and liking sequence of movements in a Pilates series.

While practicing a Pilates series, especially in a group, synchronization with others may lead participants to like the movements. To illustrate, P12 mentioned that:

We are doing the class as a group, being synchronized there... there are certain movements, which I could do, I love to do more, for instance, I get more pleasure from practicing them. In others, I'm trying too hard. But, following a certain thing as a group, capturing the synchronization.

PM offers opportunity of modification to differentiate the flow of each class that do not allow monotony as mentally and physically. To support, P23 explained her view that:

Entirely, the movement is good for me... I do not like walking on the machine continuously too much. I love walking outside, I'm looking around, different environment, changing constantly, I like it. The Pilates is the same, there is always a ... constant motion... So, that is nice.

The other sub-theme of content of the movements is enjoying the stretching exercises that mostly offer a relaxed mood and body comfort for the practitioners. Most of the movements in a Pilates series include stretching of various muscle groups while strengthening them in addition to end part that only aims to stretch the joints, muscles, and tendons. To emphasize this point, P24 introduced that “*what attracts my attention mostly is stretching my muscles and looking more fit of my body... I would say ease of movement.*” Also, P27 expressed her opinion as “*I especially like the parts of warm up in the beginning and relaxation at the end.*” Additionally, P30 mentioned that “*...especially flexing, stretching makes me relieved.*”

In order to get enough impulse to lead improvement on physical parameters in terms of strength, endurance, flexibility, coordination, and mental parameters like concentrating, focusing, awareness, and keeping away stressors and the problematic issues, a Pilates series had better prone to modifications to alert these features. Therefore, some of the participants drew attention to changable nature of the movements that motivated them and did not cause them to get bored, instead created excitement and joy as explained by P10: “*all of the movements... each time... as the instructor make us perform different movements... we wait with excitement. And I enjoy doing all the movements.*”

Some of the participants (n=2) pointed out the sequence of the movements in the Pilates series motivated them to keep conducting them. PM is a training method that encloses the parts of warm up to prepare the body physically and mentally, main part to execute the exercises with increased intensity, and cool down to decrease the intensity through active stretching exercises. This sequence does not cause the practitioners to exhaust or get bored, so it is a reason for them to sustain for a long period of time.

There is a communication between the practitioners and the Pilates instructor during the sessions. Therefore, the instructor's traits like teaching style, knowledge, attitude toward the practitioners, interpersonal relations, and time management skills play an important role on the practitioners. Particularly, smiling, energetic, and positive attitudes of the Pilates instructor are effective on some practitioners. While explaining and correcting the movements, positive verbalization may motivate the participants who might demotivate when face with a careless, or an aggressive explanation style. A friendly atmosphere seems to be necessary to practice PM sessions as stated by P3 *"our instructor's influence is always positive"* and expressed by P26 *"I like my instructor most, she is very sweet... her smile, her energy is already moving forward the Pilates."*

Practicing a physical exercise type like PM in a group setting is preferable for some individuals, who like interpersonal relations as being a part of the group, and enjoy and feel comfortable with others. Because, some people consider the only way of exercising in a team or group activities like P19 who stated her view as *"I consider it as a suitable sport as a group work."*

A Pilates method mat series that is suitable to be practiced as an indoor or outdoor activity necessitates just an area for a mat. Some of the participants expressed their feelings of enjoyment when they could perform it in nature when the weather condition is available. Since, they might feel themselves more comfortable in nature when they are isolated, relaxed, and able to breathe fresh air.

Due to misuse of body during daily living or practicing an activity, doing nonergonomic movements, accidents, and injuries, many people may encounter

with some physical problems which may necessitate them to get help from physiotherapy sessions. In addition, some people enjoy participating various physical exercise types like yoga that has been a model for many movements in the PM series. Both physiotherapy and yoga exercises offer many physical benefits for individuals, so experiencing the similarities of those exercises in a Pilates series might be interesting and attractive for its practitioners as they feel familiar while executing and getting some benefits.

5.2.23. Physical and Psychological Changes in Case of Not Practicing PM

This section looks at the possible physical and psychological changes in lives of the participants in case of not being able to perform PM for a long time. According to the findings, the participants believed that their physical and psychological lives would be adversely affected if they did not practice PM for a long time. These findings coincide with the results of research made previously. Prolonged sedentary lifestyle is independently related with destructive effect on health to increase risk of morbidity regardless of physical activity (Biswas et al., 2015). On the other hand, low percentage of a sedentary life style and exercising physically, for example at work and outside work environments, tend to contribute daily totals and put crucial sustained health benefits (Riddell et al., 2019). As Warburton & Nicol (2006) stated, regular physical activity promotes prevention of several chronic diseases and there is a graded linear relation between the volume of physical activity and health status, namely, the most physically active people are at the lowest risk.

Continuing to practice physical exercises regularly like the Pilates method that is a kind of mind-body practices provides many positive effects both physically and psychologically. As physically, it is likely to cause loss of strength, endurance, and flexibility of muscles when there would be a pause after performing the workout for a long time. In this condition, there could be some physical problems like deformation in body form, negative impact on daily activities, postural deformities, pain in joints, various physical problems, and monotony physically in daily life.

Conducting daily routines in a comfort zone is one of the positive contributions of practicing the Pilates method as the body gets stronger, more endure, more flexible, more agile, more controlled, and more coordinated. Some physical problems that stem from diseases, injuries, and aging process mostly get better by the help of exercising regularly. Therefore, the practitioners of the Pilates method mainly take advantages of contributions physically while carrying out the movements of daily life as mentioned by P10 that the way she sits on the couch and gets up, gets in and out of the car, and walks on the street with correct posture would have been affected and changed adversely. P13 stated that *“I cannot perform it for two months when I go on holiday during summer period... I feel like I need to do it.”* Also, P29 stated the handicap in her daily life as a consequence of problem with her hip joint that inhibited her daily actions if she could not able to practice the Pilates method: *“ my walking has been restricted now that I could not go uphill, I could not go downhill, I could not climb up stairs, I could not go down.”* Moreover, P21 stressed the possible age related difficulties that: *“I would experience the problems of my age more intensely.”* Additionally, the potential sedentary behaviours in their lives indicated by two participants that:

I have a feeling that I would become indolent (laughing) (P18).

If I were not performing it, I think, I would sit. I would not do anything else except TV, newspapers. Because I do not do housework much... I mean a woman works for me... I would get used to laziness. This makes me active in a way, taking away my laziness (P26).

In case of not being able to conduct regular exercises like the PM sessions, the practitioners might face deterioration in their body forms as a result of decrease in metabolic rate, increase in body fat ratio, and decrease in muscle mass. Therefore, there might be some adverse changes in their muscle mass, fat percentage, and physical appearance as aesthetically, as well. In this manner, the participants would probably have a soft body (P1, P9) and would be slack physically (P8). As stated by P32 who explained her view for the period that she had a break to continue the Pilates sessions:

It would, actually it is happening. I stop doing it over the summer as I changed city. I feel myself softer, slacker... This shows that the Pilates gives resilience and strength to people... This goes away when you do not practice it, therefore I believe it something ongoing.

In the event of not practicing PM some of the participants mentioned that they would feel uneasy to face with pain or getting worse it, as well. In this manner, P27 pointed out that:

It definitely would... because, I am unable to do different sports... There was a serious trouble with walking. I used to have pain in my knees and neck, I could not turn.. I used to have pain in my shoulders. As they have been better, certainly, I think as Pilates has helped me so much.

In addition, posture disorder was one of the concerns of the participants in case of not conducting to practice this method. Although most of the participants had kept practicing various physical exercises besides PM, the distinctive feature of it stated by P1 that “*just walking would not have made too much difference for my posture.*” Also, the absence of practicing this method could reverse the postural positive gains as explained by P24 who is a dentist suffering from neck and back problems related with her working position: “*I think they would come back.*” Additionally, P22 mentioned necessity of its continuity till to the end of her life due to her scoliosis and other problems.

Another possible negative influence in this manner was physical problems that could stem from weakness and not also practicing other forms of physical activities. To illustrate, P2 stated her physical disabilities that “*it would be, I had already a problem like that and... two months after starting to Pilates, it had started to recover.*”

Definitely, I can say right now that those physical problems do not continue. Because it is not enough trying it at home alone by myself, I do not know that maybe I was doing the movements wrong. Certainly, for that reason, there would be difference. I did them for a while like 2 or 3 months 40 to 45 minutes by myself.

The other probable negative aspects of deprivation from exercising through regular PM exercises were pointed out as possibly leading to a monotonous daily life like creating a vacuum, ignoring to do the some similar routines regarding exercising, or not having other alternatives to train body; not recognizing the feeling of power in body; and facing with various problematic issues relevant to menopause.

In addition to the physical effects, the practitioners might be affected negatively by virtue of psychological aspects when they discontinue practicing PM after conducting for a long time. Disruptions in undertaking regular PM would have a

negative psychological impact as it is considered as a means of relaxation in this study. Accomplishing the activities of daily life with more difficulty and pain time to time, and decrease in strength might upset people psychologically. Furthermore, aesthetic concerns could also cause a deficiency in feelings of self-confidence and self-love. Moreover, practicing PM with an instructor alone or in a group supports the practitioners in terms of social communication. Otherwise, not conducting to perform those exercises might lead to absence of feeling of social belonging.

One of the mostly stated negative psychological effects that might have arisen was unhappiness expressed by some participants as follows:

I would need to substitute this with something else, I would need to find something that makes me equally calm and happy, relaxing, while at the same time healthy... That would be really hard (P4).

My muscles would be weaker when I was not doing it. I would see my weak muscles when I look at the mirror. And this would demoralise me (P22),

If we think in the psychological dimension that I am impressed, the brain works better through taking in oxygen, I guess it would be negatively affected entirely if there made a pause for a long time (P19).

I have started to think it as a way of life. I guess walking and swimming would not substitute it (P27).

It would be, because when I started to a new thing, I have a temperament that wants to continue it just like a task, or in the discipline of a school. When it is interrupted due to desirable and undesirable things, I felt like as if I skipped school, or my program was unfinished; this creates a feeling of restlessness in my mind (P32).

Besides, lack of self-confidence, a pessimistic mood, the possibility of blaming the practitioner's herself for not exercising regularly as a part of her life, and feeling more stressed would be other potential negative psychological influences of not practicing this method.

5.2.24. Continuing to Practice PM in Future

All the participants mentioned that they would plan to continue performing PM regularly in the future. In this context, all the participants stated that they would like to continue practicing it. The views expressed by some participants on this matter are given as follows:

Yes, we even think about doing it more' (P5).

Yes, I want to... regularly" (P8). "I plan to continue doing it unless there is something unexpected (P11).

Yes, at least three times a week. Because I benefit from it, I believe there are positive returns from it (P19).

Yes, of course. As much as possible, I want to do it as long as I can (P21).
Yes, I hope I can do it until the end of my life. I feel myself great, I guess I would feel very bad if I could not do it, physically, mentally, emotionally (P29).
Yes, as long as the circumstances allow I want to continue doing it” (P32).

Practicing physical exercises and sports as one of the options to get out of the routines of daily life, is considered to be complementary and unifying factor for physical, social and psychological aspects. In this respect, participants who had been practicing PM exercises regularly perceived the physical, social, and psychological benefits in long term, so that they mostly wished to continue performing those exercises during their living conditions would be convenient. Because this method offered some advantageous, the practitioners felt themselves more competent in parts of life including home, work, and hobbies. Also, the quality and efficiency of time shared with people during that period provided satisfaction regarding relationships and communication. The underlying factor for impact of the principles of PM established connection between the body and mind, and helped for existence within that body in a thoughtful way. This awareness in personal dimension was decisive to strengthen the social ties and gave opportunity to experience the aspect of being healthy. Clearly, it was a safe choice with its benefits by proven results to increase the possibility to improve QOL.

CHAPTER 6

CONCLUSION & RECOMMENDATIONS

6.1. Conclusions

In the findings and discussion part, the qualitative findings were summarized and compared with other findings in Mind-Body Practices (MBP) and various physical activities literature, and in PM literature. The arguments were made up stemming from both qualitative findings and PM which were open to discussion like MBP argument as PM involves the physical and psychological aspects as well as emotional, and social aspects for its practitioners in beginner, intermediate, and advanced levels. Awareness has been raised like, PM is a combination of different physical and mental practices offers its practitioners physical and psychological awareness besides awareness of their self emotionally, and socially.

The main purpose of the current study was to determine women practitioners' opinions on how regularly practicing the Pilates method affects their physical and psychological wellbeing. The following conclusions were based on the present investigation of the physical and psychological effects of PM on women. This study supports the following points:

1. By looking at the reasons for starting to practicing PM regularly, it was seen that women had various physical, psychological, and social motivations that were included overall physical wellbeing, postural health, feeling physically fit, strengthening the muscular system, being good for psychological health problems, perceiving PM as a convenient physical exercising for each person, practicing as a group exercise, not having satisfactory results performing alone, close proximity of the PM sessions, being economical, and not receiving any benefit from crowded

sessions. The factors that influenced participants to start practicing PM might also constitute its social aspect that were involved advices of friends, colleagues, and family members, information through media, the Pilates instructors' teaching method and behavioral patterns in addition to their own decisions. Various physical and psychological problems in a great number the practitioners had before taking up PM were also indicative of the perceived benefits of the method. Practitioners believed that PM would improve their physical properties that included alleviation of physical problems due to diverse physical conditions, such as musculoskeletal pains, posture disorders, herniated neck and back, soft tissue damage, rheumatic diseases, overweight, tiredness, difficulty in walking, urinary incontinence, migraine, cramps, sleep disorder and liver problem. They also thought PM would support them at coping with psychological disorders, such as pessimism, depression, stress, and anxiety-panic disorder. It could be said that practitioners' positive opinions on PM was supported by their willingness to continue practicing it in the future. They also stated many attractive aspects of it were sequentially benefits of the movements that included physical and psychological benefits, and improvement in body consciousness; content of the movements that involved liking all the movements, enjoying stretching movements, pleasing variety of movements, and liking sequence of movements; positive impact created by the Pilates instructor; preferring to perform the PM sessions as a group; enjoying to perform in open air; and recognizing the similarities between some physiotherapy movements and yoga movements. Although all the participants stated attractive aspects of PM, several aspects perceived as problematic were struggling with certain exercises, and being unpleased about duration, time, frequency, venue, and people attending the classes that considered as feedback for forming the subsequent sessions.

2. PM affected women practitioners' physical wellbeing by leading to many positive physical impacts like improvement in body pain - especially in joints, headache, and fibromyalgia, feeling of more energetic, muscular strength, posture, looking more fit, flexibility, breathing, awareness of body, transition to menopause physically, controlling urinary incontinence, having motivation to move, and chronic constipation. Owing to the physical transformations that were resulted

from practicing PM regularly, the participants received many positive feedback and comments from milieu. Those physical improvements were having a better body form, improved posture, being more energetic and vigorous, reduction in pain, and increased flexibility in movements. In addition, positive effects of PM on participants' physical health parameters were verified by them in case of not being able to practice PM for a long time through declaring potential negative impacts. They were sequentially possibility of being out of shape, having a negative impact on daily movements, suffering from pain, no improvement in posture, continuing the physical problems, monotony in life due to inactivity, lack of power, difficulty to overcome period of transition to menopause, and behaving in a negative manner toward issues related with life. PM also led to increased body awareness on physical properties of body form, confidence in body, and control over muscle and skeleton structures.

3. PM provided positive effects on participants' psychological well-being through making them to feel happy and content, feel relaxed, be in a positive mood, enjoy the exercising, feel self-confidence, cope with depression, overcome the psychological effects of menopause comfortably, and feel mentally fit. In addition, the participants got positive feedback and comments from milieu regarding psychological transformations resulted from PM. From the point of views of others, the participants were considered as having a happier and more positive appearance, praised for practicing PM regularly, and seemed calmer. Besides, the participants made sure that unabling to practice PM would cause some negative psychological conditions like feeling of unhappiness, lack of self-confidence, getting into pessimism or depression, blaming for not making exercise a part of life, and being more stressed. Moreover, the participants improved ability to cope with stress through gaining a tranquil and healthy perspective, raising consciousness, strengthening mind and body connection, being tolerant and patient, and experiencing a meditation like impact. Additionally, the participants also overcame negative thoughts related with depression better.

4. PM provided positive effects on participants' well-being on self-identity, as well. Most of the participants improved their body awareness and mindfulness features through implementing the principles that are a set of biomechanical body

awareness topics of PM. While the control, concentration, centering, and precision principles were generally fulfilled, the breathing and flowing principles were sometimes implemented. In addition, while majority of the participants were not thinking about their problems during the practice of PM sessions, some others sometimes thinking about them. It showed that participants improved their mindfulness and concentration abilities by practicing PM exercises that might have motivated the participants with their sequence in a series, modifications, intensity and difficulty level. PM also contributed self-awareness on personality properties of feeling happier and more content, increased self-confidence, and being relaxed, more tolerant, and calmer. Moreover, it improved participants' self-esteem through increase in self-respect, and feeling of happier and more content.

5. PM also ensured positive effects on participants' well-being on undertaking daily tasks, efficiency at work, starting new activities, and life styles through increasing energy level or vigor, providing a positive motivation and making more content, and being more planned and disciplined. Additionally, it caused positive physical changes in participants while undertaking daily tasks by helping to move more easily, using body more consciously, feeling more energetic and stronger, having decreased level of pain, and having a better posture. It also had a positive impact on conducting physical exercises and routines of daily life through developing concentration ability. As well as, it affected life styles in terms of providing motivation, making life more planned and ordered, implementing the learnt from PM in daily life, improving the QOL, giving self-esteem, and feeling of self-care. As a consequence of PM, the participants experienced positive impact on their work efficiency by feeling more energetic, improvement in concentration ability, coping with work stress, improving physical strength, and providing motivation, as well. PM also put influence on participants' approaches on starting up a new activity or taking risk through increasing courage, motivating to do other sports, feeling of entrepreneur, being more conscious, more controlled and thinking more clearly, being willing to exercise more and taking the edge off one's desires like eating habits, and being more social.

6. PM provided positive effects on participants' well-being on behaviors and attitudes on people and events, satisfaction regarding social ties and interpersonal

relationships, and social awareness. It influenced behaviors and attitudes positively on people and events by enhancing tolerance, providing positive motivation, increasing the importance of exercise in life, being more focused, concerning on people who do not exercise, and getting more conscious. Moreover, PM affected the humanism-oriented, nature-oriented, and God oriented spiritual lives positively especially on behalf of interpersonal relations. Furthermore, it had positive effects on relationships with family members, friends, and colleagues. It was helpful to establish more positive relations with family members, made family members happier on behalf of the participants, increased tolerance towards them, and provided opportunity to share exercising experience together. Moreover, it created a shared ground with friends by practicing the PM sessions, influenced the relations more positively, and strengthened the social relations. In addition, PM positively influenced relations with colleagues through enhancing social communication and solidarity.

As introduced, PM exercises were found to have significant effects on women's well-being by raising awareness of mind-body relationship. The basis of the changes appeared to be the development of a new relationship with the body through improved physical condition by raising connection with mind. The affected areas included physical, psychological, emotional, and social changes on daily activities, work life, self-identity, and interpersonal relations. From these effects, physical benefits have seemed more influential when compared to psychological advantages. This may suggest that PM is mostly considered with its physical benefits and it results in more action oriented effects than psychologically as well as affectively and socially based effects. However, those psychological, emotional, and social areas are supposed to be affected positively as a result of physical contributions of PM. These findings might suggest that increment in ability to move and take action by aid of PM may change and regulate one's emotions and mood more directly and easily. It could be suggested that increase in one's functioning in daily life and psychological well-being may result from becoming more comfortable due to positive changes in his/her body.

To sum up, the most of the women in this study experienced significant transformations by training the body directly through PM. Many of these changes

occurred in a wide range and they have been viewed as more physical in nature that created psychological contributions besides emotional and social ones. The origin of these changes seemed to lie in the mind-body integrated relationship that the women had created with their bodies.

6.2. Recommendations

The current study raises the question of whether a mindful physical exercise method makes a difference in a person's ability to behave in the world and to attain a better QOL. PM as a mind-body practice comprises moving, directing, controlling, and focusing on body to create physical and psychological changes efficaciously in a mindful way, therefore, it should be encouraged to introduce into the individuals' lives, particularly when they are not interested in any type of physical practice. In order to serve the purpose toward providing motivation and support for exercising regularly with increased number of practitioners, several recommendations have been established.

PM can be integrated in exercise programs at fitness centers, rehabilitation centers, and residential houses in form of private or group sessions for all ages. It can be also applied in the workplace to improve motivation, concentration, and physical and mental performance especially for the occupational groups that work under extreme stress. Moreover, PM can be suggested as a supportive method during family therapies when considering the positive effects on family relationships.

There is much to be learned to adaptate PM for many individuals of the society, especially the physically and/or psychologically problematic ones, regarding the most suitable duration, frequency, and intensity of a Pilates series. Therefore, mixed method would be more beneficial to support the qualitative nature of this study. Furthermore, future research should focus on further examining the physical and psychological effects of it on all age groups and men participants with a large number. In addition, investigations comparing PM and other mind-body practices with more traditional exercises. This attempt could compare their relative benefits

and might determine any factors that differentiate mind-body practices from other exercises.

6.3. Implications

The major intention of this study is the requirement to reveal the holistic aspects of PM as a MBP that includes training of both mind and body simultaneously during the workout. This intention stemmed from the need to find out the neglected aspect of the mind in many traditional types of physical exercises like resistance training, aerobics, calisthenics, and strength training that usually focus primarily on improvement of just bodily functions such as strength, flexibility, and endurance. As they strongly emphasize direct work with the body to train it, their primary target is to address stronger, more endure, and more flexible musculoskeletal structure. The findings of the present study recommend the possibility that exercising the body with its feelings, sensations, and thoughts in a sophisticated manner may offer a considerable opportunity for change on acquiring physical, psychological, and social benefits which cannot be separated from each other.

Once this method is introduced as both appropriate and attractive to the practitioners, it may encourage them for the mindful movement toward their body and mind. For example, as PM increases stamina, mindfulness, motivation, and concentration ability, it may be thought to be a beneficial mind-body method among managers, doctors and academicians for their work performance. Also, PM can be included in pre-season camps and season training programs of elite athletes who take part in team or individual sports to develop their skills of strength, flexibility, endurance, concentration and being in the flow. Moreover, physicians might raise awareness by advising PM as an integrated treatment for people who complain about systemic diseases like migraine and rheumatism and musculoskeletal problems like herniated disc, soft tissue damage, and posture disorders in order to increase mobility, decrease the pain and loss of strength.

In addition to these, people who suffer from pessimism, depression, stress disorder, or anxiety disorder may take advantage of PM. When people need to feel more effectiveness and control over daily life activities and work performance

may also benefit from this method. Moreover, people who need to social belonging to experience for more improved interpersonal relations may make use of PM. Additionally, people who need to develop a sense of support within themselves as they are introverted may follow up PM that provides increased and enhanced positive mood, concentration, motivation, tolerance, encouragement, awareness, self-esteem, spirituality, life satisfaction, strength, endurance, flexibility, energy and vigor.

This qualitative study has brought forward evidence that PM as a mind-body practice is a precious technique for way of good quality living and means of favorable change in women's lives. After practicing PM regularly for at least 8 months to 17 years, the participants reported that they felt much better physically, psychologically, socially, and emotionally. Those psychological, social, and emotional transformations were believed to be positive results of the physical advancements. For most of the participants, practicing PM probably meant more than just a system of physical conditioning, indeed it might have been a part of their daily routine and become a demand in their lives with comprehensive effects.

6.4. Contribution of the Study

The present study provides information that mentions the influences of the Pilates method as a mind-body practice from the point of views of the women practitioners. The findings of the study are in accordance with the mostly positive changes found in the literature on other mind-body practices such as yoga, qigong, and tai chi; conventional or traditional practices like aerobics, calisthenics, and resistance training; and traditional and modern Pilates methods that include mat exercises and usage of apparatus. This study mainly provides a extensive information about the health-promoting benefits of mind-body practices from the point of physical, psychological, social, and emotional dimensions. To explain, it focuses and aims on how these positive effects efficaciously affect a person's life from those multi-dimensional health-promoting aspects. As well as, it ensures a significant contribution to the literature by offering the psychological benefits of Pilates method that stem from its physical beneficial effects. This study also

contributes the literature to investigate the influences of Pilates method that include both mindfulness and physical properties of strength, endurance, flexibility, and coordination. This property may help to determine how Pilates method as a mind-body practice achieves the mentioned benefits which differ from the traditional types of exercise. In addition, the present study offers information to the literature by providing evidence for a more holistic view of human functioning in a mindfull manner by improving mental and physical awareness as opposed to the traditional physical activity approaches that typically pay more attention on traininin of the body separately while excluding the mind. Providing information for literature regarding the effects of Pilates method is particularly important because it provides non-coercive, reachable, and cost-effective precautions for maintaining overall well being of the individuals young to old in health care system. Lastly, the current study raises the question of that this mindful physical exercise method may play an important role in a person's ability to behave in the world and to achieve a better QOL.

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APPENDICES

A. INTERVIEW FORM IN TURKISH

GÖRÜŞME FORMU

Sayın Katılımcı,	
<p>Bu görüşmedeki soruların amacı, Pilates metodunun, bu konuda deneyimi olan kadınların fiziksel ve psikolojik iyi oluş durumları üzerine olası etkilerini belirlemektir. Şimdiye kadar ülkemizde ve yurtdışında yapılan araştırmalar, Pilates metodunu uygulamanın fiziksel ve psikolojik faydaları olduğunu göstermektedir.</p> <p>Yaklaşık 30 dakika süreceği tahmin edilen görüşme ile araştırmaya sağlayacağınız önemli katkı ve destek için teşekkürler. Bu görüşme süresince söyleyeceklerinizin tümü gizli kalacaktır. Sizden toplanan görüşler yalnızca araştırma amaçları doğrultusunda kullanılacak, başka bir kişi ya da kuruma verilmeyecektir.</p>	
Filiz Öztürk Orta Doğu Teknik Üniversitesi Eğitim Fakültesi Beden Eğitimi ve Spor Bölümü e-mail:filizozt@yahoo.com	
Görüşme Tarihi:.....	
Görüşmemiz sürecinde ses kaydı yapılmasına izin veriyor musunuz?	<input type="checkbox"/> Evet <input type="checkbox"/> Hayır

BÖLÜM I: KİŞİSEL BİLGİLER

1. Adınız (Zorunlu değil):	Meslek:	
2. Yaşınız (Lütfen yazınız):		
3. Medeni durumunuz: <input type="checkbox"/> Evli <input type="checkbox"/> Bekar <input type="checkbox"/> Ayrılmış <input type="checkbox"/> Eşini Kaybetmiş		
4. Eğitim durumunuz: <input type="checkbox"/> Lise <input type="checkbox"/> Lisans <input type="checkbox"/> Y.Lisans <input type="checkbox"/> Doktora		
5. Ana sporunuz Pilates mi?: <input type="checkbox"/> Evet <input type="checkbox"/> Hayır		
6. Kaç aydır ya da yıldır Pilates yapıyorsunuz?:		
7. Haftada ne sıklıkta Pilates yapıyorsunuz?:		
8. Pilates seans süreniz kaç dakika?:		
9. Pilates seansını nasıl yapıyorsunuz? <input type="checkbox"/> Grup <input type="checkbox"/> Özel <input type="checkbox"/> Kendi Kendime <input type="checkbox"/> DVD Eşliğinde		
10. Geçmişte ve/ve ya şu anda yaptığınız başka fiziksel aktiviteler var mı?: <input type="checkbox"/> Evet <input type="checkbox"/> Hayır		
Türü	Sıklığı (Haftada)	Süresi (Dakika)
1.		
2.		
3.		

BÖLÜM II: GÖRÜŞME SORULARI

1. Pilates metodu ile ilgili deneyiminizden bahsedebilir misiniz?

1.1. Pilates metoduna başlamaya neden ve nasıl karar verdiniz?

1.2. Pilates metodunu yapmanızda kimler ve neler etkili oldu?

2. Pilates metoduna başlamadan önce gözlemediğiniz fiziksel ve/ve ya psikolojik problemlerinizi var mıydı?

3. Pilates metoduna başladığınızdan beri kendinizde gözlemediğiniz olumlu ya da olumsuz fiziksel ve/ve ya psikolojik değişiklikler oldu mu?

4. Pilates metodunun prensiplerini yerine getiriyor musunuz?

Doğru Nefes Alıp Verme

Hareketleri Kontrollü Yapma

Konsantre Olma

Merkeze Odaklanma

Hareketleri Doğru Yapma

Hareketleri Akıcı yapma

5. Pilates seansları öncesi ve sonrasında duygu durumunuz nasıl oluyor?

6. Pilates seansları sırasında zihninizde varolan problemleri düşünüyor musunuz?

7. Pilates metodu neticesinde bedeninizle ve kişilik özelliklerinizle ilgili benlik bilincinizde değişiklik(ler) oldu mu?

8. Pilates metodu neticesinde özsaygı algınızda değişiklik(ler) oldu mu?

9. Pilates metodu neticesinde enerjiniz ya da yaşama gücünüzde herhangi bir değişiklik oldu mu?

10. Pilates metodu neticesinde stresle baş etmek konusunda farklılık hissediyor musunuz?

11. Pilates metodu neticesinde olumsuz duyguların üstesinden daha iyi geldiğinizi düşünüyor musunuz?

12. Pilates metoduyla konsantre olma becerinizde değişiklik(ler) olduğunuzu hissettiniz mi?

13. Pilates metodunun manevi yaşamınızı etkilediğini düşünüyor musunuz?

14. Pilates metodunun yaşam şeklinizi etkilediğini düşünüyor musunuz?

15. Pilates metodunun insanlara ve olaylara bakış açınızı etkilediğini düşünüyor musunuz?

16. Pilates metodu aileniz, arkadaşlarınız, ve iş arkadaşlarınızla ilişkinizi etkiliyor mu?

17. Pilates metodunun kişiliğiniz, fiziksel görünümünüz ve yaşamınızda etkileri olduğu konusunda aile, iş ve arkadaş çevrenizden yorum(lar) aldınız mı ?

18. Pilates metodunun günlük işlerinizi yaparken fiziksel olarak bir farklılık yarattığını hissediyor musunuz?

19. Pilates metodunun iş yaşamınızdaki veriminize etkileri olduğunu düşünüyor musunuz?

20. Pilates metodunun yeni bir aktiviteye başlama ya da risk alma durumlarındaki yaklaşımınızda bir etkisi olduğunu düşünüyor musunuz?

21. Pilates metodu ile ilgili hoşlanmadığınız ya da problemleri bulduğunuz herhangi bir şey var mı?

22. Pilates metodu ile ilgili ilginizi en çok çeken şey nedir?

23. Pilates metodunu uzun süre uygulayamıyor olsaydınız fiziksel ve psikolojik yaşantınızda herhangi bir farklılık olur muydu?

24. Pilates metodunu uygulamayı sürdürmeyi düşünüyor musunuz?

B. INTERVIEW FORM IN ENGLISH

INTERVIEW FORM

<p style="text-align: center;">Dear Participant,</p> <p>The purpose of the questions in this interview is to determine women practitioners' opinions on their physical and psychological wellbeing through practicing Pilates method regularly. So far, studies that conducted in our country and abroad suggest the physical and psychological benefits of the Pilates method.</p> <p>Thanks for providing an important support and contribution to the research through responding the interview that is estimated to last about 30 minutes. All you say during this interview will remain confidential. The opinions, which collected from you will be used only for the purposes research, will not be given to another person or institution.</p> <p style="text-align: right;">Filiz Öztürk Middle East Technical University Faculty of Education Department of Physical Education and Sports e-mail:filizozt@yahoo.com</p>	
Date of Interview:.....	
Do you allow for tape recording during the interview process?	<input type="checkbox"/> Yes <input type="checkbox"/> No

PART I: DEMOGRAPHIC INFORMATION

1. Name (Not Mandatory):	Job:
2. Age (Please Write):	
3. Marital Status: <input type="checkbox"/> Married <input type="checkbox"/> Single <input type="checkbox"/> Divorced <input type="checkbox"/> Widow	
4. Education: <input type="checkbox"/> High Scho <input type="checkbox"/> Bachelor's <input type="checkbox"/> Master's <input type="checkbox"/> PhD	
5. Is Pilates method your main workout?: <input type="checkbox"/> Yes <input type="checkbox"/> No	
6. How many months or years have you been practicing the Pilates method?:	
7. How many times in a week do you practice Pilates method?:	
8. How many minutes do your Pilates sessions take?	
9. How do you practice your Pilates sessions ? <input type="checkbox"/> Group <input type="checkbox"/> Private <input type="checkbox"/> By Myself <input type="checkbox"/> DVD	
10. Are/Were you interested in any other types of physical exercises? <input type="checkbox"/> Yes <input type="checkbox"/> No	
If your answer is "Yes", express its type, frequency, and duration.	
Type	Frequency (In a Week)
	Duration (Minutes)
1.	
2.	
3.	

PART II: INTERVIEW QUESTIONS

1. Could you tell me about your experience with Pilates method (PM)?
 - 1.1. How and why did you decide to start practising Pilates method?
 - 1.2. What were the effective factors to participate in Pilates method?
2. Did you have any physical and/or psychological problems that you observed before starting to practice Pilates method?
3. Have you noticed any positive or negative physical and/or psychological changes in yourself since you started Pilates method?
4. Do you fulfill the principles of Pilates method?
 Breathing Control Concentration Centering Precision Flow
5. How is your emotional stance before and after practicing Pilates method sessions?
6. Do you think the existing problems in your mind during Pilates method sessions?
7. Have you noticed any changes in your perception of self-awareness regarding your body and personality traits as a result of Pilates method?
8. Have you noticed any changes in your perception of self-esteem as a result of Pilates method?
9. Have you noticed any changes in your energy and vigour as a result of adding Pilates method into your life?
10. Are there any differences in how you cope with stress a result of practicing Pilates method?
11. Do you think you better deal with the negative emotions by the help of Pilates method?
12. Have you observed any changes in your ability to concentrate through Pilates method?
13. Do you think practicing Pilates method has affected your spiritual life?
14. Do you think participating in Pilates method has affected your life style?
15. Do you think that participating in Pilates method has influenced your perspective on people and events?
16. Has participation in Pilates method affected your relationships with your family, friends, and colleagues?
17. Have you received any comments from your family, friends, and colleagues regarding the effects of participation in PM on your personality, physical appearance, or life?
18. Do you feel any differences physically in how you perform the daily tasks as a result of practicing Pilates method?
19. Do you think that practicing Pilates method has affected your work life?
20. Do you think that practicing Pilates method has any influence in your approach to start a new activity/taking risk?
21. Is there anything you dislike or find problematic related to Pilates method?
22. What is the most interesting thing that is attractive in Pilates method?
23. If you were unable to practice Pilates method for a long time, would be there any physical and psychological differences in your life?
24. Do you think to continue practicing Pilates method?

C. HUMAN SUBJECTS ETHICS COMMITTEE APPROVALS

UYGULAMALI ETİK ARAŞTIRMA MERKEZİ
APPLIED ETHICS RESEARCH CENTER



ORTA DOĞU TEKNİK ÜNİVERSİTESİ
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11 ARALIK 2018

Konu: Değerlendirme Sonucu

Gönderen: ODTÜ İnsan Araştırmaları Etik Kurulu (İAEK)

İliği: İnsan Araştırmaları Etik Kurulu Başvurusu

Sayın Prof.Dr. Settar KOÇAK

Danışmanlığını yaptığınız Filiz ÖZTÜRK'ün "Zihin-Beden Uygulaması Olarak Pilates Metodunun Kadınların Fiziksel ve Psikolojik İyi Oluş Durumlarına Etkileri" başlıklı araştırması İnsan Araştırmaları Etik Kurulu tarafından uygun görülerek gerekli onay 2018-EGT-162 protokol numarası ile araştırma yapması onaylanmıştır.

Saygılarımla bilgilerinizi sunarım.


Prof. Dr. Tülin GÜNÇÖZ

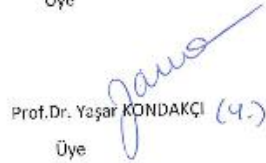
Başkan


Prof. Dr. Ayhan SOL

Üye

Prof. Dr. Ayhan Gürbüz DEMİR

Üye


Prof. Dr. Yaşar KONDAKÇI (4.)

Üye


Doç. Dr. Üyesi Ali Emre TURGUT

Üye


Doç. Dr. Emre SELÇUK

Üye


Doç. Dr. Üyesi Pınar KAYGAN

Üye

D. CONSENT FORM

ARAŞTIRMAYA GÖNÜLLÜ KATILIM FORMU

Bu çalışma ODTÜ Beden Eğitimi ve Spor Bölümü doktora öğrencilerinden Filiz Öztürk tarafından yürütülmektedir. Bu form sizi araştırma koşulları hakkında bilgilendirmek için hazırlanmıştır.

Çalışmanın Amacı Nedir?

Bu çalışmanın amacı, zihin-beden uygulaması olarak Pilates metodunun, bu konuda deneyimi olan kadınların fiziksel ve psikolojik iyi oluş durumları üzerine olası etkilerini incelemektir.

Bize Nasıl Yardımcı Olmanızı İsteyeceğiz?

Araştırmaya katılmayı kabul ederseniz, demografik bilgilerin de içinde olduğu, yapılandırılmış görüşme tekniği ile hazırlanmış 24 sorudan oluşan bir röportaj yapılacaktır. Yaklaşık 30 dakika sürmesi beklenen bu görüşme, sizin uygun zamanınıza göre yüz yüze ya da telefonla görüşerek yapılacaktır. İzniniz dahilinde, ses kayıt cihazı kullanılarak ses kaydı yapılacaktır. Bu kayıt, yüz yüze görüşme dışında telefonla görüşme esnasında diyalogun kayıt edilebilmesi için telefon hoparlörü de açık iken sürdürülecektir.

Katılımla İlgili Bilmeniz Gerekenler:

Bu çalışmaya katılmak tamamen gönüllülük esasına dayalıdır. Sizden kimlik belirleyici hiçbir bilgi istenmeyecektir. Demografik bilgiler bölümünde, adınızın sorulduğu kısmın doldurulması kesinlikle zorunlu değildir. Herhangi bir yaptırıma veya cezaya maruz kalmadan çalışmaya katılmayı reddedebilir veya çalışmayı bırakabilirsiniz. Araştırma esnasında cevap vermek istemediğiniz sorular olursa yanıtlamayabilirsiniz. Araştırmaya katılanlardan toplanan veriler, tüm bilgiler ve katılımcıların kimliği tamamen gizli tutulacaktır. Ayrıca toplanan

verilere sadece arařtırmacı ulaşabilecektir. Çalışmada, katılımcıların görüşleri açıklanırken, isimleri yerine onları temsil eden katılımcı numarası verilerek ifade edilecektir. Bu arařtırmadan elde edilen veriler ve sonuçlar sadece bilimsel yayınlarda kullanılacaktır.

Arařtırmayla İlgili Daha Fazla Bilgi Almak İsterseniz:

Çalışmayla ilgili soru ve yorumlarınızı arařtırmacıya filizozt@yahoo.com adresinden iletebilirsiniz. Arařtırmaya katılımız ve sağlayacağınız destek için teşekkürler.

Yukarıdaki bilgileri okudum ve bu çalışmaya tamamen gönüllü olarak katılıyorum.

(Formu doldurup imzaladıktan sonra uygulayıcıya geri veriniz).

İsim Soyad

Tarih

İmza

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E. POST-PARTICIPATION INFORMATION FORM

KATILIM SONRASI BİLGİ FORMU

Bu araştırma daha önce de belirtildiği gibi Beden Eğitimi ve Spor Bölümü doktora öğrencilerinden Filiz Öztürk tarafından yürütülen bir çalışmadır. Çalışmanın amacı, Pilates metodunun kadınların sağlıkları üzerindeki olası fiziksel ve psikolojik etkilerini, literatür taraması ve yarı yapılandırılmış görüşme tekniği ile ortaya çıkarmaktır. Pilates metodu, anatomi ve biyomekanik temellerine dayanarak J. H. Pilates tarafından yaklaşık 100 yıl önce vücudu güçlendirmek ve esnetmek için geliştirilmiştir. Yer hareketleri ve aletli hareketlerden oluşan Pilates metodu, nefes eşliğinde, karın, bel, kalça ve uzuvların güçlenmesine ve esnemesine odaklanır. Fiziksel rehabilitasyon ve performans artırma amaçlı ve olumlu psikolojik etkileri nedeniyle tercih edilmektedir. Bugüne kadar yapılan çalışmaların pek çoğu, Pilates metodunun fiziksel faydaları üzerine odaklanırken, psikolojik faydaları da dahil edilerek görüşme tekniği ile kapsamlı şekilde ortaya konulmamıştır. Pilates metodunu düzenli olarak uygulayan katılımcıların yarı yapılandırılmış görüşme tekniği ile verecekleri yanıtların geniş kapsamlı sonuçlar ortaya koyması halinde, bu konuda deneyimi olmayan kişilere fiziksel ve psikolojik faydalarının yanında olası pozitif sosyal etkileri de faydalanabilmeleri üzere önerilebilecektir.

Bu çalışmadan alınacak ilk verilerin 28.12.2018'de elde edilmesi amaçlanmaktadır. Elde edilen bilgiler sadece bilimsel araştırma ve yazılarda kullanılacaktır. Bu araştırmaya katıldığınız için tekrar çok teşekkür ederiz. Araştırmanın sonuçlarını öğrenmek ya da daha fazla bilgi almak için aşağıdaki isme başvurabilirsiniz. Doktora Öğrencisi Filiz Öztürk (e-posta: filizozt@yahoo.com)

Çalışmaya katkıda bulunan bir gönüllü olarak katılımcı haklarınızla ilgili veya etik ilkelerle ilgili soru veya görüşlerinizi ODTÜ Uygulamalı Etik Araştırma Merkezi'ne iletebilirsiniz. e-posta: ueam@metu.edu.tr

F. CURRICULUM VITAE PERSONAL INFORMATION

Personal Information

Name, Surname: Filiz Öztürk

Date of Birth: 28.10.1975

Current Occupation: English Teacher and Pilates Instructor

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Telephone: 05323931244

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Educational Information

2013-..... PhD. Candidate- METU Physical Education and Sports Department

2012-2013 PhD. Student- METU Physical Education and Sports Department

2011-2012 PhD. Student- Ankara University The School of Physical Education and Sports

1997-2000 Master's Degree- METU Physical Education and Sports Department

1992-1997 Bachelor's Degree- METU Physical Education and Sports Department

1989-1992 High School- Yahya Kemal Beyathlı Lisesi- Ankara

Work Experience

2002-2019 English Teacher, MEB State Secondary and Primary Schools

1998-2002 Physical Education Teacher, MEB State High School

1999-2008 Part Time Instructor, Bilkent University Physical Education and Sports Center

1996-2008 Fitness, Step- Aerobics, and Pilates Instructor- Sports International, Ankara

Foreign Languages

English- Advanced

Italian- Beginner

Award

METU Graduate Courses Performance Award, 2012-2013

Relevant Skills

2008 Personal Training Workshop, Bilkent University, Ankara

2007 Level 1 Pilates Method Instructor Certificate, Turkish Gymnastics Federation, Ankara

2004 Spinning Instructor Orientation, Mad Dogg Athletics, İstanbul

2004 International Spinning, Aerobics, Fitness, and Dance Seminar, Spor Med, Ankara

2002 Aerobic Training Seminar, Turkish Gymnastics Federation, Ankara

2000 II Fit and Fun Aerobic Festival, Turkish Gymnastics Federation, İzmir

1997 Lone Star Diving Certificate, Turkish Swimming Federation, Ankara

Publications

1. Özen, G., Koçak, F., Boran, F., Sunay, H., Gedikli, N. (2012). Türk Spor Yönetimindeki Mevcut Sorunlara İlişkin Akademisyenlerin Görüşlerinin Değerlendirilmesi. SPORMETRE Beden Eğitimi ve Spor Bilimleri Dergisi, 10, 107-116.
2. Boran, F. (2012). The Reasons of Under Representation of Women in Senior Level Sports Management. 12th International Sport Sciences Congress December 12-14, Denizli, Turkey, 145-146.

G. TURKISH SUMMARY / TÜRKE ÖZET

GİRİŞ

Evrım süreci anatomik olarak modern insanların ortaya çıkmasına neden olmuştur. Bu süreç yalnızca bedenle sınırlı olmayıp, psikolojik, sosyal, davranışsal, duygusal ve manevi yönleri de kapsamaktadır. Teknolojik gelişmeler ve modern yaşam tarzı insanları daha pasif yaşamaya yönlendirmiştir. Bu yeni ve doğal olmayan yaşam şekline insanların verdiği karşılık fiziksel egzersiz ve spor olmuştur. Bu aktivitelere katılma nedenleri fiziksel, psikolojik ve sosyal katkılarından kaynaklanmaktadır. Sağlıklı olma, kaybedilen fiziksel ve ruhsal sağlığı tekrar kazanma isteği, sakatlık ya da yaralanma sonrası rehabilitasyon ihtiyacı, psikolojik rahatlama, sakinleşme, özsaygı, özgüven, ve ait olmayı deneyimleme isteği bu sebepler arasında sayılabilir.

Kas-iskelet ağrısı, migren, yüksek tansiyon, diabet, kalp-dolaşım hastalıkları, astım ya da artrit gibi kronik hastalıklar ve problemler duyguları ve davranışları kontrol etmede stress, endişe bozukluğu, depresyon, uyku-uyanıklık ya da duygudurum ile ilgili bazı psikolojik yakınmalara neden olabilir. Bu fiziksel ve psikolojik rahatsızlıkların belirtilerini hafifletip üstesinden gelmek beden farkındalığını artırıp, hareketlerin kontrolünün geliştirilip fiziksel iyilik halinin sağlanmasıyla mümkün olabilir. Bedenin kontrol ve farkındalığının gelişmesi, özgüven, özsaygı ve özyeterliliğin artmasının yanında duyuları algılama ve uyum yeteneğine de katkı sağlayabilir. Tamamlayıcı ve Bütünleştirici Sağlık Ulusal Merkezi (NCCIH), sözü edilen ihtiyaçları karşılamada yardımcı olduğu düşünülen zihin-beden pratikleri arasında Pilates metodunu da göstermektedir. Özellikle kadınlar arasında popüler bir fiziksel egzersiz çeşidi olan ve pek çok insan tarafından sağlık üzerindeki olumlu faydaları nedeniyle uygulanan bu metodun etkilerini bilimsel çalışma ile açıklığa kavuşturmak, bu etkilerin aslında

insanların yaşamlarını nasıl değiştirebildiğini ve yeniden şekillendirebildiğini derinlemesine araştırmak önemlidir. Bu çalışmanın amacı, Pilates metodunu düzenli uygulamanın fiziksel ve psikolojik iyi oluş durumunu nasıl etkilediği konusunda kadın uygulayıcıların görüşlerini ortaya çıkarmaktır.

Bunu gerçekleştirmek için, literatür taraması bölümü fiziksel ve psikolojik iyi oluş, anda olma, zihin-beden uygulamalarının amacı ile ilgili kavramları içermektedir. Bunlara ek olarak, zihin-beden egzersizi olarak Pilates metodunun tarihçesi, başlıca özellikleri, yer hareketleri ve makineler ile uygulanış biçimleri, duruş ve omurganın önemi, temel prensipleri ile fiziksel ve psikolojik yararlarını açıklamaktadır. Literatür taraması bölümünü yöntemin açıklanması takip etmektedir. Bu çalışmada, Pilates metodunun kadınların fiziksel ve psikolojik iyi oluşları üzerine görüşlerini ortaya çıkarmak için nitel araştırma metodu ve katılımcılarla yarı yapılandırılmış, yüzyüze ve telefonla görüşme tekniği uygulanmıştır. Görüşme sorularından elde edilen veriler bulgular bölümünde şekiller ve katılımcıların yanıtlarından alıntılar yapılarak tablolarla sunulmuş ve yorumlanmıştır. Daha sonra, bulgular literatürdeki bilgi ile karşılaştırılıp yorumlanmıştır. Son olarak sonuçlar sunulmuştur.

Joseph Hubertus Pilates, 1900'lerin başında 1. Dünya Savaşı boyunca Almanya'da 500 den fazla esneklik ve kuvvet hareketi içeren egzersiz sistemini geliştirmeye başlamış (Latey, 2001; Matty & Burdell, 2006; Schroeder, 2008; Siler, 2000; Sorosky et al., 2007), farklı hareket biçimleri şekillendirip duruş alışkanlıklarını geliştirmek için (Bass, 2004) ilk olarak minderde yapılan yer hareketlerini (Siler, 2000), sonrasında da direnç sağlayan yaylar ve kayışlar içeren bir dizi özel makine tasarlamıştır (Matty & Burdell, 2006; Muscolino & Cipriani, 2004; Wells & Bialocerkowski, 2012).

Pilates metodu devamlı ve doğru uygulandığında beden ve maneviyat üzerinde olumlu etkileri olabilen gerçek bir zihin-vücut çalışmasıdır (Fernandez, 2014). Kasları yönetmek için zihni kullanmayı öngören bu yaklaşımın altını çizmek isteyen J. H. Pilates (Siler, 2000), başlarda bu metodu 'Kontrol Sanatı' ya da 'Kas Kontrolü' olarak isimlendirmiş (Pilates & Miller, 1998; Pourvagher et al., 2014b), yoga, dans, dayanıklılık ve kuvvet antrenmanı, cimmastik, ruhsal ve fiziksel

egzersizler gibi Doğu ve Batı uygulamalarını bir araya getirmiştir (Latey, 2002; Winsor, 1999). Hergün tekrarlanan monoton, yüksek şiddetli, yorucu ve zorlayıcı bir teknik olmayıp (Pilates & Miller, 1998; Siler, 2000), uygulayıcılarına düşük ve orta şiddetle egzersiz yapma hissini verir. Hareketler, eklemlerde aşırı kullanıma neden olmamak için 2 ile 10 arasında değişen tekrar sayısı (Merithew, 2003), Tai Chi Chuan'da olduğu gibi yavaş, akıcı ve kusursuz uygulanıp (Winsor, 1999) Yoga'nın tersine aynı seride tekrar edilmezler.

Önceleri, özellikle dansçılar tarafından uygulanan Pilates metodu günümüzde tiyatro ve spor dünyasındaki profesyoneller arasında sakatlık ya da yaralanmaların rehabilitasyonundaki popülerliği ve Pilates-temelli egzersizlerin onların uygulamalarına entegre edilmesiyle (Johnson et al., 2007; Wells & Bialocerkowski, 2012) sağlık ve spor tesislerinde hızla gelişen egzersiz akımlarından biri olmuştur (Schroeder, 2008; Sorosky et al., 2007). Pilates metodu ve içeriği farklı koşullarda uygulanması nedeniyle yıllar içinde değişmiş ve günümüzde geleneksel ya da repertuar yaklaşım ve modern yaklaşım olarak ikiye ayrılmıştır (Latey, 2001). Geleneksel yaklaşımda bireysel problemlerde hareket serisi ve tekrar sayılarında çok az değişiklik yapılırken, modern yaklaşımda varolan hareket teorileri ve kanıt-tabanlı rehabilitasyon prensiplerinin yardımıyla (Abanoz, 2010), genel popülasyonun kullanımına uygun olması için hareketler adapte edilir ve kolaylaştırılır (Gladwell et al., 2006). Pilates serisini uygularken vücut farkındalığı yaratan biyomekanikle ilgili bir takım temel prensipler vardır (Merrithew, 2003). Bunlar, nefes, kontrol, konsantrasyon, merkeze odaklanma, doğruluk ve akıştır (Bass, 2004; Latey, 2002; Matty & Burdell, 2006).

Zihin-beden egzersizlerinden biri olan Pilates metodunun yaşam kalitesini olumlu yönde etkileyen farkındalığı artırma, fiziksel ve psikolojik iyi olma durumunu sürdürme, ve fiziksel ve psikolojik rahatsızlıkları iyileştirmede yararları vardır: beden ve vücudu bütünsel yaklaşımla birleştirir ve güçlendirir; dayanıklılığı, esnekliği ve kuvveti artırır; duruşu, dengeyi, nefes ve hareket arasındaki dengeyi geliştirir; ve düzgün bir vücut biçimi kazandırır (Latey, 2002; Siler, 2000; Sorosky et al., 2007; Wells et al., 2012). Ayrıca, insanların sosyal yaşamlarında belirleyici olan özsaygı, özgüven ve toplumsal bütünleşme rollerini geliştirmelerinde önemli bir rol oynar. Örneğin, Miyamoto ve diğ. (2011), kas-iskelet sorunları, spor

yaralanmaları, ve nörolojik hastalıkların çoğunlukla Pilates-temelli egzersizleri de içeren rehabilitasyon programları tarafından desteklenip tedavi edildiğini; Segal et al. (2004), 6 haftalık Pilates egzersizinin sağlıklı kişilerin esneklik skorlarında önemli artışa neden olduğunu; Klizas ve diğ. (2012) basketbol, voleybol, futbol, ve Pilates gibi egzersizlerin adolesan kızlarda psikososyal uyum, özsaygı, baskınlık, ve yaşam doyumunu artırdığını; Cruz-Ferreira ve diğ. (2011) de, 6 ay boyunca haftada 2 saat yapılan Pilates temelli egzersizlerin kadınların psikolojik iyi oluş ve yaşam kalitesini artırdığını ortaya çıkarmıştır.

Sözü edilen nicel araştırmalardan, Pilates metodunun bütün vücut tipleri, sağlık düzeyi ve yaş grupları için fiziksel ve psikolojik faydaları olduğu anlaşılmaktadır. Ancak, Pilates metodunun kadınların fiziksel ve psikolojik iyi oluş durumlarını nasıl etkilediğini ortaya çıkaracak nitel yöntemle ortaya koyulmuş yeterli sayıda çalışma bulunmamakta, bu konuda yapılacak nitel bir araştırmanın literatüre katkı yapacağı düşünülmektedir. Bu bakımdan, genel sağlık üzerinde fiziksel ve psikolojik iyi oluş üzerinde Pilates metodunu düzenli uygulamanın sonuçlarını kadın uygulayıcıların bakış açılarını nitel bir çalışma ile ortaya çıkarmanın literatüre önemli bilgi sağlayacağı düşünülmektedir. Sağlık üzerindeki olumlu etkileri nedeniyle tercih edilen Pilates metodunun araştırılması, bu etkilerin özellikle insanların yaşamlarını değiştirip yeniden biçimlendirebileceğini ortaya koyabilecektir. Ayrıca, tıp ve psikoloji bilimlerinin sistemik hastalıklar, yaralanmalar ve psikolojik rahatsızlıklardan yakınan insanları iyileştirmedeki çabalarına katkı sağlayabilecektir.

YÖNTEM

Mevcut çalışmada izlenen araştırma yöntemi konu seçimi, literatür taraması, teori ve kavramsal çerçeve oluşturma, araştırma sorusunu netleştirme, araştırma tasarımı geliştirme, veri toplama, veriyi analiz etme, ve sonuçlar çıkarmaktan oluşan sekiz adımı takip etmektedir (Gratton & Jones, 2004).

Bu çalışmada, Pilates metodunu deneyimleyen kadınların fiziksel ve psikolojik iyi oluş durumları hakkında derinlemesine bilgi almak için nitel araştırma yöntemi yöntemi kullanılmış (Gratton & Jones, 2004) ve temel nitel araştırma deseninin

(Merriam, 2009) sistematik adımları uygulanmıştır. Bu etkilerin açığa çıkarılabilmesi için katılımcıların fiziksel ve psikolojik özellikleri, öz-kimlik algıları, iş ve günlük yaşam ile kişiler arası ilişkileri hakkında 24 soru ile görüşleri alınmıştır. Çalışmanın amacına uygun şekilde katılımcıların belirlenmesinde, özel amaç örnekleme ve kolaylıkla bulunabilen örnekleme yöntemleri kullanılmıştır. Türkiye, Ankara'da yaşayan, Pilates metodunu düzenli yapma motivasyonu ve aktif yaşamı olan, yaşları 27 ve 74 arasında olan, en az 8 ay ve 17 yıl arasında değişen bir süredir düzenli Pilates metodunu yapan 32 kadın katılımcı ile yüzyüze ya da telefon ile röportaj yapılmıştır.

Sertifikalı bir Pilates eğitmeni yer hareketlerinden oluşan seansları, top, lastik bant ve çember gibi yardımcı malzemeler de kullanarak tek kişi ya da 2 ve 5 arası kişiden oluşan grupla haftada 1, 2 ya da 3 kez, 50-60 dakika arasında, katılımcıların ev ya da iş yerinde yaptırmıştır. Kas-iskelet yakınmalarına göre hareketler değiştirilerek şiddeti azaltılmış ya da artırılmış, en az 3 en fazla 10 tekrar sayısı ile yapılmıştır. Hareketler açıklanmış, gösterilmiş ve her seans sırasında geri bildirim verilmiştir.

Çalışmada kullanılan veri yarı yapılandırılmış görüşme yöntemi (Pitney & Parker) ile toplanmıştır. Yarı yapılandırılmış görüşme soruları Hawkins'in (2004) çalışması ilham alınarak hazırlanmış, bir alan araştırma uzmanı soruları İngilizce'den Türkçe'ye tercüme etmiş, hazırlanan form konusunda beş alan araştırma uzmanının onayları alınmıştır.

Katılımcıların görüş ve bakış açılarını ortaya çıkarmayı amaçlayan yapılandırılmış görüşme formundaki sorularla ilgili röportajlar (Creswell, 2009) 25 katılımcı ile araştırmacının evinden telefon, 7 katılımcı ile de evlerinde yüz yüze, ses kayıt cihazı kullanılarak yapılmıştır. Öncesinde tüm katılımcılardan ses kaydı için izin istenmiş, ses kayıt cihazı ve cep telefonu hoparlörü açılarak ses kaydı yapılmıştır. Demografik bilgi formları araştırmacı tarafından röportaj anında doldurulmuştur. Röportaj süreleri en kısa 9 dakika 25 saniye, en uzun ise 40 dakika 27 saniye sürmüştür.

Bu çalışmada bütünlüğün sağlandığı konusunda okuyucuyu temin etmenin, bulguların doğruluğunun kalitesi, kredibilitesi ve değerlendirmesini sağlamak için birçok güvenilirlik ve geçerlilik prosedürü yerine getirilmiştir. Çalışmada nitel içerik analizi kullanılmış, nitel veri analizi, veri toplama, yorumlama ve rapor yazımı ile aynı anda gerçekleştirilmiştir. Nitel veri analizi için temel olan genel analiz biçimine göre (Creswell, 2009), araştırmacı nitel veriyi toplamış, incelenmiş, kodlanmış ve temalara ve ya bakış açlarına göre analiz etmiştir. Bu nitel görüşme yönteminde, güvenilirlik, istikrarlı bir röportaj ortamının sağlanması, katılımcıların izniyle röportajların kayıt altına alınması ve daha sonra araştırmacı tarafından deşifre edilmesi ile sağlanmıştır. Röportaj metinlerinin deşifre çözümü Microsoft Word programında yazılarak yapılmış, metinler okunmuş, bütün konuların listesi yapılmış, araştırma soruları ile ilgili önemli kavramlar ve temalar kullanılan kodlama süreciyle ayrıntılı bir analiz başlamıştır. Verinin bir alan uzmanı tarafından nitel veri analiz yazılımı NVivo ile analiz edilmesinin ardından, kodlar not edilmiş ve her bir ilgili ifade, açık kod olarak tanımlanan uygun bir kod altında düzenlenmiştir (Gratton & Jones, 2004). Bazı kodlar analitik olarak daha genel birinin altına gelecek şekilde ve sıralı olarak organize edilmiş ve bazı nedensel ilişkiye göre tanımlanmıştır. Temaların temsilini geliştirmek için, tartışmaların yanında şekiller ve tablolar, anlatım metinleri kullanılmış, verinin yorumu araştırmacının kişisel yorumu ile yapılmıştır. Bu süreçte, iki alan uzmanı bulgular bölümündeki çeşitli şekiller ve tablolar aracılığıyla görsel olarak sunulan temalar ve kodların teyidi için çalışmaya dönüt vermiştir. Bir uzman ve iki alan uzmanı da verileri analiz etmiştir.

BULGULAR

Tezin sonraki bölümü, yarı yapılandırılmış görüşme metodu ile sorulan ve elde edilen yanıtların kodlanması sonucu ortaya çıkan bulguların belirtildiği bölümdür. Görüşme soruları, Pilates metodunu düzenli yapma nedenlerinin arkasındaki fiziksel ve psikolojik özellikler, öz kimlik, iş ve günlük yaşam, ve sosyal ilişkileri içeren konuları açığa çıkarma amacıyla hazırlanmıştır. Bu bölüm ilk olarak, 32 kadın katılımcının meslek, yaş, medeni durum, eğitim düzeyi, Pilates metodunu ne zamandır yaptığı, sıklığı, seansların süresi, uygulama şekli, ve geçmiş ve şu anda yapmış/yapmakta olduğu diğer egzersiz türlerinin açıklandığı demografik

bilgilerin sunulmasıyla başlamıştır. Yaşları 27 ve 74 arasında değişen katılımcılarından 22 katılımcı çalışmakta, 21'i evli, 4'ü bekar, 4'ü eşini kaybetmiş ve 3'ü de ayrılmıştır. Katılımcıların Pilates metodunu yapma süreleri 8 ay ile 17 yıl arasında, haftada 1 kezden 8 keze kadar, özel, grup, ya da kendi kendilerine yapmaları şeklinde, 35-60 dakika arasında değişmektedir. Fiziksel aktivite raporlarına göre, bütün katılımcılar aktif olarak Pilates metodunu düzenli yapmakta ve %87.5'i geçmişte ve/veya şu anda farklı egzersizler yapmaktadırlar.

Demografik bilgilerin ardından, 24 sorudan oluşan yarı yapılandırılmış görüşme formu ile elde edilen bulgular soruların sorulma sırasına göre şekiller ve katılımcıların görüşme sorularına verdikleri yanıtlardan alıntılar yapılarak tablolar kullanılarak ifade edilmiş, ortaya çıkan temaların frekansları sunulmuştur. Bu çalışmanın bulguları aşağıdaki noktaları desteklemektedir:

1. Pilates metodunu uygulamaya karar vermenin sebepleri sırasıyla genel fiziksel iyi oluş ($f=13$), vücudun duruş şekli ile ilgili sağlığı ($f=11$), fiziksel olarak zinde hissetme ($f=4$) ve kas sistemini güçlendirme ($f=4$) alt temalarından oluşan fiziksel problemlere iyi gelmesi; psikolojik sağlık problemlerine iyi gelmesi ($f=4$); her birey için uygun bir fiziksel egzersiz çeşidi olması ($f=9$), grup egzersizi olarak uygulama ($f=7$); diğer görüşler temasında ifade edilen tek başına egzersiz yapmaktan kaynaklanan tatminkar sonuçlar alamama, Pilates derslerinin yakınlığı, çok yorucu olmaması, ucuz olması ve kalabalık grup egzersizlerinin dezavantajlı olması şeklinde dile getirilmiştir. Pilates metodunu uygulamaya başlamada etkili olan faktörler ise arkadaşların ($f=15$), meslektaşların ($f=9$) ve aile üyelerinin ($f=5$) tavsiyeleri, medyadan edinilen bilgi ($f=7$), Pilates eğitmenlerinin öğretim yöntemi ve davranış biçimleri ($f=7$) ve katılımcıların kendi kararları ($f=5$) biçiminde açıklanmıştır.

2. Çok sayıda katılımcı Pilates metodunu uygulamaya başlamadan önce çeşitli fiziksel ve psikolojik sorunları olduğunu bildirmiştir. Sözü edilen fiziksel problemler bölgesel kas ve iskeletle ilgili ağrılar ya da rahatsızlık ($f=47$), duruş bozuklukları ($f=16$), boyun ve bel fitiği ($f=8$), yumuşak doku zedelenmesi ($f=4$) ve genel vücut ağrısı ($f=3$); çeşitli romatizmal hastalıklar ($f=5$), fazla kilolu olma ($f=4$), yorgun hissetme ($f=4$), yürüme zorluğu ($f=2$) ve diğer görüşler altında

idrarını tutamama, migren, kramp, uyku düzensizliği ve karaciğer hastalığı belirtilmiştir. Deneyimlendiği belirtilen psikolojik problemler ise karamsarlık ($f=5$), depresyon ($f=5$), stres bozukluğu ($f=4$) ve kaygı-panik bozukluğudur ($f=3$). Bunlara ek olarak katılımcıların %34.4'ü herhangi bir psikolojik sorun yaşamadığını belirtmiştir.

3. Pilates metodu, eklem ağrısı ($f=34$), baş ağrısı ($f=2$) ve fibromiyaljinin ($f=1$) neden olduğu vücut ağrılarını hafifletme, enerjik hissetme ($f=17$), kasların güçlenmesi ($f=16$), vücut duruşunun düzelmesi ($f=14$), daha zinde gözükmeye ($f=12$), esnekliğin artması ($f=6$), rahat nefes alma ($f=4$), vücut farkındalığının artması ($f=3$) ve diğer görüşler olarak ifade edilen idrarı tutamamanın kontrol edilmesi, hareket etme motivasyonuna sahip olma ve kronik kabızlığa karşı faydaları gibi pekçok olumlu fiziksel etkiye neden olmuştur. Bunların yanısıra, Pilates metodu mutlu ve hoşnut hissetme ($f=17$), rahat hissetme ($f=12$), olumlu bir ruh halinde olma ($f=9$), egzersizden hoşlanma ($f=6$), özgüvenli hissetme ($f=3$), depresyonla mücadele etme ($f=3$), menapozun psikolojik etkilerinin üstesinden rahatlıkla gelme ($f=1$) ve zihinsel olarak zinde hissetme ($f=1$) şeklinde ifade edilen olumlu psikolojik etkiler sağlamıştır.

4. Pilates metodunun prensiplerinden kontrol ($f=31$), konsantrasyon ($f=31$), merkeze odaklanma ($f=30$) ve doğruluk ($f=30$) genellikle uygulanırken, nefes ($f=8$) ve akış ($f=5$) prensipleri bazen uygulanmaktadır.

5. Pilates seanslarına başlamadan önce katılımcıların çoğu memnun, mutlu ve heyecanlı ($f=12$) hissederken, bazıları karışık ($f=6$), sakin ve rahat ($f=5$), telaşlı ($f=5$), yorgun ($f=3$) ve depresif ($f=1$) hissetmektedirler. Seansları bitirdikten sonra duygu durumları çoğunlukla mutlu ve memnun ($f=24$), daha huzurlu ve rahatlamış ($f=17$), sakin ($f=4$), daha olumlu ($f=2$), ve dinlenmiş olup daha konsantre hissetme ($f=1$) şeklindedir.

6. Pilates metodunu yaparken, katılımcıların çoğunluğu problemleriyle ilgili hiç bir şey düşünmezken (68.75%), bazıları (31.25%) problemlerini seans sırasında zaman zaman düşünmektedirler.

7. Pilates metodunun yardımıyla, katılımcılar fiziksel özellikleriyle ilgili farkındalıklarının arttığını ($f=11$), vücut formlarının değiştiğini ($f=10$), vücutlarına güvenin ($f=10$) ve kas-iskelet yapıları üzerine kontrollerinin arttığını ($f=5$) söylemişlerdir. Aynı zamanda kişilik özellikleri ile ilgili özfarkındalıklarının da olumlu şekilde değişip kendilerini daha mutlu ve hoşnut ($f=15$), rahatlamış ($f=3$), daha toleranslı ($f=2$) ve daha sakin ($f=2$) hissettiklerini ifade etmişlerdir.

8. Pilates metodunun öz saygıyı geliştirdiği ($f=18$), kişinin öz güveni artırdığı ($f=16$), ve daha mutlu ve hoşnut hissetmesini sağladığı ($f=12$) belirtilmiştir.

9. Pilates metodunun enerji ve zindelik seviyesini artırdığı ($f=23$), olumlu motivasyon sağladığı ($f=9$), uygulayıcılarının daha hoşnut, planlı ve disiplinli olmasını ($f=1$) sağladığı dile getirilmiştir.

10. Pilates metodunun sakin ve sağlıklı bir perspektif kazandırıp ($f=22$), farkındalığı artırdığı ($f=5$), zihin ve vücudu güçlendirip ($f=4$), toleranslı ($f=1$) ve sabırlı olma ($f=1$) ve meditasyon benzeri etki sağlayarak ($f=1$) stresle başa çıkmada faydalı olduğu ifade edilmiştir.

11. Pilates metodunun yardımıyla depresyonla ilgili olumsuz düşüncelerin üstesinden gelinebildiği ($f=26$) belirtilmiştir.

12. Pilates metodunun fiziksel egzersizleri ($f=19$) ve günlük hayatın rutinlerini yerine getirirken ($f=15.6$) konsantrasyon becerisi üzerinde olumlu bir etkiye sahip olduğu ifade edilmiştir.

13. Pilates metodunun hümanizm odaklı ($f=11$), doğa odaklı ($f=9$), hümanizm, doğa ve Tanrı odaklı ($f=2$), ve Tanrı odaklı ($f=1$) manevi hayatı olumlu bir şekilde etkilediği belirtilmiştir.

14. Pilates metodunun motivasyon sağlama ($f=11$), hayatı daha planlı ve düzenli yapma ($f=10$), bu metodun prensiplerini gündelik hayatta uygulama ($f=10$), hayat kalitesini artırma ($f=4$), daha enerjik hissetme ($f=3$), özsaygı sağlama ve özbakım hissetme ($f=1$) açılarından hayat tarzını olumlu yönde etkilediği ifade edilmiştir.

15. Pilates metodunun, toleransı artırarak ($f=11$), olumlu motivasyon sağlayarak ($f=3$), egzersiz yapmanın yaşamdaki önemini artırarak ($f=3$), daha odaklı ($f=1$), daha bilinçli olmayı sağlayarak ($f=1$), egzersiz yapmayanlara saygı duymama ($f=1$) ve diğerlerinin fiziksel özelliklerini değerlendirme biçimini etkileyerek ($f=1$) insanlar ve olaylar üzerine olan davranış ve tutumları olumlu yönde etkilediği söylenmiştir.

16. Pilates metodunun aile, arkadaş ve meslektaşlarla olan ilişkiler üzerine olumlu etkilere sahip olduğu dile getirilmiştir. Aile üyeleriyle daha olumlu ilişkiler kurmakta ($f=13$), Pilates metodunu yapıyor olmaları nedeniyle aile üyelerinin onlar adına daha mutlu hissetmesinde ($f=5$), onlara karşı toleransı artırmada ($f=4$) ve beraber egzersiz yapma deneyimini paylaşma fırsatını sağlamada ($f=3$) faydalı olduğu belirtilmiştir. Buna ek olarak, Pilates seanslarını arkadaşlarla birlikte yapmanın ortak anlar ve aktiviteleri paylaşmalarını sağladığı ($f=15$), ilişkileri daha olumlu yönde etkilediği ($f=11$) ve sosyal ilişkileri ($f=3$) güçlendirdiği dile getirilmiştir. Ayrıca, çalışma hayatının içinde olan katılımcılar ($n=11$), bu metodun meslektaşlarıyla aralarındaki ilişkileri pozitif yönde etkilediğini ($f=11$), sosyal iletişimi geliştirdiğini ($f=5$) ve dayanışmayı artırdığını ($f=2$) söylemişlerdir.

17. Katılımcılar Pilates metodundan kaynaklanan fiziksel ve psikolojik değişiklikler hakkında sosyal çevreden olumlu geri bildirim aldıklarını ifade etmişlerdir. Sözü edilen fiziksel gelişmeler daha iyi bir vücut şekline ($f=17$) ve daha doğru duruşa sahip olma ($f=9$), daha enerjik ve dinç olma ($f=7$), ağrıda azalma ($f=1$) ve hareketlerdeki esnekliğin artması ($f=1$) yönünde olmuştur. Olumlu yönde geri bildirim verilen psikolojik gelişmeler ise daha mutlu ve olumlu görünmeleri ($f=5$), Pilates metodunu daha düzenli yaptığı için övgü almaları ($f=4$) ve daha sakin oldukları ($f=3$) şeklinde belirtilmiştir.

18. Pilates metodunun günlük işleri yaparken daha kolay bir şekilde hareket etmeye yardım ederek ($f=13$), vücudu daha bilinçli bir şekilde kullanarak ($f=13$), daha enerjik ve güçlü hissettirerek ($f=10$), ağrı düzeyini azaltarak ($f=4$), daha iyi bir duruşa sahip olarak ($f=3$) iş verimini olumlu yönde etkilediği belirtilmiştir.

19. Pilates metodunun daha enerjik hissettirerek ($f=9$), konsantrasyon becerisini geliştirerek ($f=6$), iş stresiyle başa çıkarak ($f=6$), fiziksel gücü geliştirerek ($f=5$), motivasyon sağlayarak ($f=2$) iş veriminde olumlu bir etki tecrübe ederler.

20. Pilates metodunun cesareti artırması ($f=12$), diğer sporları yapma isteği sağlaması ($f=5$), girişimci hissettirmesi ($f=5$), daha bilinçli, kontrollü ve açık şekilde düşünmeyi sağlaması ($f=1$) ve daha fazla egzersiz yapmaya istekli hale getirmesi ($f=1$) nedenleriyle risk alma ya da yeni bir aktiviteye başlama yaklaşımları üzerinde olumlu etkiye sahip olduğu ifade edilmiştir.

21. Katılımcıların çoğu (78%), Pilates metoduyla ilgili hoş gitmeyen ya da problemleri herhangi bir konu olduğunu düşünmemesine rağmen, problemleri olarak algılanan bir kaç yön diğer katılımcılar tarafından dile getirilmiştir (22%). Bunların belli egzersizleri yaparken zorlanma ($f=5$), Pilates seansının süresi, gün içinde yapıldığı zaman, sıklığı, ve yeri ($f=5$) ve derslere katılan diğer katılımcılar konusundaki hoşnutsuzluk ($f=3$) ile ilgili olduğu ifade edilmiştir.

22. Pilates metodunun çekici gelen yönleri sırasıyla fiziksel ($f=16$) ve psikolojik ($f=3$) faydaları ve beden farkındalığının gelişmesini ($f=3$) içeren hareketlerin yararları (68.75%); bütün hareketleri ($f=8$), germe hareketlerini ($f=5$), hareketlerin çeşitliliği ($f=3$) ve sıralamasını ($f=3$) sevmeyi kapsayan hareketlerin içeriği (65.62%); Pilates eğitmeninin yarattığı olumlu etki ($f=4$); seansları grupla ($f=3$) ve açık havada yapmaktan hoşlanma ($f=2$) ile bazı fizyoterapi ve yoga hareketleri arasındaki benzerlikleri fark etmek ($f=1$) biçiminde ifade edilmiştir.

23. Pilates metodunu düzenli şekilde uygulayamamanın fiziksel ve psikolojik olarak çeşitli olumsuz etkilere neden olabileceği dile getirilmiştir. Olası negatif fiziksel etkilerin başında günlük hayattaki hareketlerin olumsuz etkilenmesi ($f=8$), vücut formunun bozulması ($f=6$), duruş bozukluğu ($f=5$), ağrı şikayetleri ($f=4$), fiziksel rahatsızlıkların devam etmesi ($f=4$), hareketsizlikten kaynaklanacak monotonluk ($f=3$), kuvvetsizlik ($f=1$), menopoza geçiş sürecinin üstesinden gelmekte zorlanma ($f=1$) ve yaşamla ilgili meselelerde olumsuz davranma ihtimalleri ifade edilmiştir. Bunların yanında, Pilates metodunu düzenli şekilde uygulayamama durumunda deneyimlenebilecek olası psikolojik problemler

mutsuzluk hissi ($f=14$), özgüven eksikliği ($f=3$), karamsarlık / depresyon ($f=3$), sporu hayatın bir parçası yapamamak nedeniyle kendini suçlama ($f=1$) ve daha stresli ($f=1$) olunacağı şeklinde belirtilmiştir.

24. Bütün katılımcılar gelecekte Pilates metodunu uygulamaya devam edeklerini belirtmiştir.

TARTIŞMA

Tartışma bölümünde, elde edilen bulgular literatürdeki zihin-beden egzersizleri konusundaki diğer çalışma bulgularıyla, çeşitli fiziksel aktivite ve Pilates metodu literatürüyle karşılaştırılmıştır.

Demografik bilgilerden elde edilen bulgulara göre, bu çalışmada yer alan kadın katılımcıların eğitim düzeyinin yüksek olması fiziksel egzersiz yapma isteği yönünde bilgi ve farkındalıklarını geliştirip vücutlarına ve sağlıklarını korumaya verdikleri önemi artırdığını düşündürmektedir. Ayrıca, ekonomik olarak özel dersleri karşılayabilir düzeyde oldukları için düzenli yapabildikleri düşünülmektedir. Benzer şekilde, eğitim ve refah düzeyinin yüksek olduğu gelişmiş toplumlarda fiziksel egzersiz ve spor aktivitelerine daha çok zaman ayrıldığı ifade edilmiştir (Bunke ve diğ., 2011; Kiku, 2006, akt. Yüksel, 2015; Van Tuyckom ve Scheerder, 2010). Diğer taraftan, Yüksel (2015)'in çalışmasında daha düzenli fiziksel aktivite yapanların ilkökul ve ortaokul mezunları, daha az yapanların ise lisans derecesinden kişiler olduğu belirtilmiştir.

Fiziksel aktivite raporlarına göre bütün katılımcılar aktif olarak Pilates metodunu düzenli yaparken, %87.5'inin geçmişte ve/ve ya şu anda farklı egzersizler yaptıklarını belirtmeleri fiziksel egzersizin yaşamlarında önemli bir serbest zaman aktivitesi olduğunu düşündürmektedir. Benzer şekilde Görücü (2006), geçmişte özel bir spor branşında eğitim almış olan beden eğitimi ve spor bölümü öğrencilerinin sporun içinde daha aktif olduklarını, Öpözlü ve diğ. (2006) ise katılımcıların %17.5'inin düzenli fiziksel aktivite yaptıklarını belirtmiştir. Ayrıca, bu çalışmada katılımcıların % 56.25'inin geçmişte ve/ve ya şimdi en çok yaptığı fiziksel aktivite Öpözlü ve diğ. (2006) ve Yüksel (2014)'in çalışmalarında olduğu gibi yürüyüştür.

Bu çalışmanın başlıca sonucu, Pilates metodunun fiziksel ve sağlık değişkenleri üzerindeki olumlu etkileridir. Katılımcıların büyük çoğunluğu (93.75%), Pilates metodunu uygulamaya başlamadan önce özellikle kas-eklem problemleriyle ilgili ağrı, duruş bozukluğu ve boyun bel fitiği gibi çeşitli sağlık sorunları yaşadıklarını dile getirmişlerdir. Ancak, Pilates metodunu en az 8 ay en fazla 17 yıl süresince, haftada 1, 2, 3 ve en fazla 8 kez düzenli uygulamak olumlu fiziksel gelişmelere neden olmuştur.

Bu konuda yapılmış diğer çalışmalar da, Pilates metodunun sağlıklı kişiler ve kas-iskelet rahatsızlıkları yaşayan kişilerde omurga ve eklem hareketliliğinin, statik ve dinamik dengenin, koordinasyon, kas tonusu, duruş, esneklik, ve karın kas dayanıklılığının geliştirilmesinde kor (merkez) bölge ve uzuvların güçlenmesiyle olumlu etkiler sağladığını göstermiştir (Bernardo, 2007; Jago et al., 2006; Johnson et al., 2007; Sekendiz et al., 2007; Smith & Smith, 2005).

Bu çalışmada, Pilates metodunun en dikkat çeken etkisi özellikle boyun ve bel eklemlerindeki ağrıyı hafifletmesidir. Bu sonuç, Pilates terapi ve sacro-occipital tekniğinin skolyozu olan 39 yaşındaki kadın katılımcının tedavisinde olumlu etkisini gösterdiği Blum (2002) tarafından sürdürülmüş olan örnek olay incelemesi yaptığı çalışması ile paralellik göstermektedir. Benzer şekilde, bu çalışmada da skolyoz ve dönmüş omurga (rotated vertebrae) problemlerini yaşayan, yaşları 56 (Katılımcı 22) ve 62 (Katılımcı 27) olan iki katılımcı bulunmaktadır. Sırasıyla, 3.5 ve 2 yıl süresince düzenli olarak haftada 2 kez, 1 saat süreyle yaptıkları Pilates seanslarının omurga hareketliliğini artırdığını ve bel ağrılarını azalttığını ifade etmişlerdir. Blum (2002) ve mevcut çalışmanın benzer sonuçları, Pilates metodunun özellikle omurganın rotasyonundan sorumlu olan transversus abdominus, internal ve external obliques, multifidus ve erector spina kaslarını güçlendirmeyi gerektiren merkeze odaklanma prensibinden kaynaklandığı düşünülmektedir.

Gladwell ve diğ. (2006) tarafından yapılmış başka bir çalışma 6 hafta boyunca, haftada 1 kez yapılan modifiye edilmiş Pilates programının kronik nonspesifik bel ağrısına olan etkisini araştırmıştır. Değerlendirmeler sonucunda Pilates programının ağrıyı azaltarak esnekliği artırdığı görülmüştür. Benzer biçimde

mevcut çalışmada katılımcılar ağrı düzeyini azaltmakta etkileşimli parametreler olan esneklik ve kuvvetin arttığını belirtmişlerdir. Pilates metodu doğası gereği, esneklik, dayanıklılık ve kuvveti eş zamanlı geliştiren hareketleri içermektedir. Bu çalışmada katılımcıların %18.75'i esnekliklerinde gelişme olduğunu ifade etmelerine rağmen, Pilates metodunu haftada 1 kez uygulayan katılımcılar benzer sonucu göstermezken, 2 kez uygulayanlar esnekliklerinin arttığını belirtmişlerdir. Bu çalışmanın aksine Segal ve diğ. (2004) 47 yetişkinin katıldığı çalışmalarında haftada 1 kez, 1 saat süreyle, 2 ay süresince yapılan Pilates yer hareketlerinin esnekliği geliştirdiğini göstermiştir.

Randomize kontrollü bir çalışmada Altan ve diğ. (2009) 12 haftalık, haftada 3 kez, 1 saat süren Pilates egzersiz programının fibromiyalji hastalarının ağrı parametresinde gelişme olduğunu göstermiştir. Benzer şekilde, mevcut çalışmada haftada 2 kez, 3 yıl boyunca Pilates metodunu uygulayan, boyun fitiği ve fibromiyalji rahatsızlıkları bulunan Katılımcı 13 ağrılarının devam etmediğini belirtmiştir.

Bu çalışmanın bir diğer sonucuna göre, Pilates metodunu düzenli uygulamanın kadınların psikolojik iyi oluş durumlarına olumlu katkısı vardır. Katılımcılar Pilates çalışması neticesinde kendilerini mutlu ve hoşnut, rahat, ve olumlu ruh halinde hissetme gibi psikolojik durumları dile getirmişlerdir. Bunlar, duygu durumundaki gelişmeler üzerine yapılmış diğer çalışma sonuçları ile paralellik göstermektedir (Bullo ve diğ., 2015; Caldwell ve diğ., 2013; Pérez ve diğ., 2014). Örneğin, Boguszewski ve diğ. (2012) yaptıkları çalışmada, 10 hafta süresince haftada 1 kez 90 dakika yapılan Pilates antrenmanının yaşlı kadınlarda ruh halini olumlu yönde geliştirdiğini bulmuşlardır.

Ayrıca, mevcut çalışmada Pilates metodunun depresyon gibi olumsuz duygularla baş etmekte olumlu etkisinin olduğu (%81.25) sonucu, depresyon belirtilerini azalttığı öne sürülen diğer çalışmalar tarafından desteklenmektedir (de Siqueira Rodrigues ve diğ., 2010; Durutürk ve diğ., 2013; Hassan & Amin, 2011; Korkmaz, 2010; Öksüz, 2012). Bu konuda, Eyigör ve diğ., (2010) de 8 hafta boyunca haftada 3 kez yapılan Pilates egzersizlerinin göğüs kanseri hastası kadınların depresyon düzeyleri üzerinde etkili olduğunu göstermiştir.

Mevcut çalışmada katılımcıların pek çoğu (%78.1), Pilates metodunun stresle baş etmek konusunda etkisinin olduğunu ifade etmişlerdir. Caldwell ve diğ., (2013) tarafından yapılmış olan çalışma da haftada 3 kez, 50 dakika süresince 15 haftalık Pilates metodu yer egzersizlerinin lisans öğrencilerinin hissedilen stress düzeylerini azaltmakta etkisi olduğunu göstermiştir. Ayrıca, Babayiğit, 2009; Duruturk ve diğ., 2013; Öksüz, 2012; Reppa, 2013 tarafından yapılan çalışmalar kaygı durumunun azaltılmasında Pilates metodunun olumlu etkileri olduğunu göstermiştir. Mevcut çalışmada da katılımcılardan 3 kişi (1, 7 ve 23) Pilates çalışması öncesinde kaygı bozukluğu yaşadıklarını belirtmişler ve Pilates çalışmasını uygulama neticesinde kendilerini mutlu, rahatlamış, olumlu ruh hali, egzersiz yapmaktan memnun olduklarını ve depresyonun üstesinden gelebildiklerini ifade etmişlerdir. Uygulama süreleri, sıklığı, ve seans süreleri farklı olsa da, Pilates metodunun psikolojik iyi oluş hali üzerinde olumlu katkıları olduğu düşünülmektedir.

Bu çalışmanın en önemli sonuçlarından biri de, düzenli Pilates metodunu uygulamanın kadın katılımcıların öz-kimlikleri konusunda olumlu etkilerinin olduğunu göstermesidir. Bu sonuç, kendini algılama ve beden imgesi fikirlerinin detaylandırılmasıyla öz farkındalık kavramının açıklığa kavuşturulmasını hedeflemiştir. Bu nedenle, tartışma bölümünde bu konuda Pilates metodu ile ilgili çalışmaların limitli olması nedeniyle, fiziksel egzersizle ilgili uygun çalışmalar dahil edilmiştir. Bu konuda, Leung ve diğ. (2008a) tarafından akut koroner sendrom hastası kadınlarda vücut zihin terapisinin benlik bilincini ve duygu kontrolünü geliştirdiği, öz yeterliliği artırdığı, rahatlama sağladığı ve zihni sakinleştirdiği ortaya çıkarılmıştır. Diğer bir çalışmada, 200 kadın üniversite öğrencisi spor etkinliklerinde yer almanın öz saygı ve beden imgesini olumlu etkilediğini dile getirmişlerdir. Mevcut çalışmada katılımcıların Pilates metodunun öz saygıyı geliştirdiğini, öz güvenlerini artırdığını, ve daha mutlu ve hoşnut hissetmelerine neden olduğunu belirtilmiş olmaları Reppa (2013) tarafından yapılan çalışma ile benzerlik göstermektedir. İçerisinde Pilates egzersizlerini de dahil eden Balance & Reform adlı programın genç kadınlarda öz saygıyı artırması yönünde olumlu etkisi olduğu ortaya çıkarılmıştır.

Katılımcılar ayrıca fiziksel özellikleri ve kişilik özellikleri konusunda farkındalıklarının gelişmesinde Pilates çalışmasının etkileri olduğunu belirtmişlerdir. Fiziksel özellikler konusunda farkındalıkları açısından katılımcıların %31.25'inin öz güvenlerinin artmış olmasını ifade etmeleri, Demir (2013) tarafından orta yaş sedanter kadınlar ile yaptığı çalışma ile benzerlik göstermektedir. Araştırmacıya göre, 8 hafta süreyle, hafta 3 kez yapılan 1 saatlik Pilates metodu çalışmasının kadınların öz güvenlerini artırmada olumlu etkisi olmaktadır. Mevcut çalışmada katılımcıların kişilik özellikleri konusunda mutlu ve hoşnut hissettikleri ($f=15$) yönündeki ifadeleri, yaşam kalitesini artırma kavramı ya da diğer ifade şekilleri olan mutluluk, öznel iyi oluş ve yaşam doyumu ile de açıklanabilir. Bu konuda yapılmış olan diğer çalışmalar da Pilates metodunun yaşam kalitesi üzerindeki olumlu katkısını desteklemektedir (Klizas ve diğ., 2012; Öksüz, 2012). Bu noktada Cruz-Ferreira ve diğ., (2011) tarafından 62 kadın katılımcı ile sürdürülmüş olan çalışmada haftada 2 kez yapılan 60 dakikalık Pilates yer hareketlerinin 6 aylık çalışma sonucunda katılımcıların yaşam doyumunu artırdığı ifade edilmiştir.

Bu çalışmanın sonuçlarından bir diğeri de Pilates metodunu düzenli uygulamanın iş hayatı ve günlük yaşamda sağladığı olumlu etkileridir. İş verimliliği ve Pilates metodunun etkileri arasındaki ilişkiyi inceleyen çalışmaların sınırlı sayıda olması sebebiyle, iş verimliliği ve farklı fiziksel egzersiz programları arasındaki ilişkiyi araştıran çalışmalar dikkate alınmıştır. Örneğin, Tobiasson ve diğ. (2014) çalışmalarında bilgisayara bağımlı, sedanter ve monoton çalışma koşullarını önlemek için fiziksel hareketleri çalışma ofisine entegre etmenin önemini vurgulamışlardır. Bu çalışmada yer alan Katılımcı 5 bu konuda yaşadığı deneyimi şöyle dile getirmiştir: *“bir farkı var belki, hastane içinde çok inip çıktığım için, merdiven inip çıkarken eskiden asansörü daha çok tercih ediyordum, şimdi etmiyorum ve çıkarken o kadar yorulmuyorum önceye göre.”* Benzer şekilde Kim ve diğ. (2015) üniversite öğrencileri arasında kas-iskelet ağrılarının hafifletilmesi için 8 haftalık, haftada 3 kez, her seansta 20 dakika uygulanan duruş düzeltme egzersiz programının öğrenciler yanında sedanter iş koşullarında olan insanlar için iş verimini artırmada faydalı olduğunu ortaya koymuştur. Mevcut çalışmada Katılımcı 7, Pilates çalışması yapmanın iş yerindeki olumlu etkisini şöyle dile

getirmiştir: *“Oturuşumda kesinlikle oluyor. İçsel enerjiyle... oturmalar arasında daha fazla... ara veriyorum. Mesela, kalkıp yürüyorum daha çok, işimde oturarak geçirmiyorum, geçirmemeye çalışıyorum.”* Bunlara ek olarak, de Siqueira Rodrigues ve diğ. (2010) yaşlı kadınlarda kişisel özerklik sağlama ve yaşam kalitesini artırmada 8 haftalık, haftada 2 kez, 60 dakikalık Pilates metodu egzersizlerinin olumlu etkileri olduğunu ortaya koymuşlardır. Pérez ve diğ. (2014) ve Curi Pe’rez ve diğ. (2013) 12 hafta süresince yapılan Pilates metodunun yaşlı kadın katılımcıların günlük aktivitelerini daha kısa zamanda yerine getirmelerinde olumlu katkısını ortaya çıkarmışlardır. Bunlara ek olarak, Öksüz (2012) 6 haftalık, haftada 3 kez, 1 saat süreyle yapılan Klinik Pilates egzersiz programının günlük yaşam işlevselliğini olumlu yönde etkilediğini açığa çıkarmıştır. Örneğin, mevcut çalışmada 69 yaşında olan Katılımcı 10, 1 yıldır, haftada 2 kez, 1 saat boyunca düzenli yaptığı Pilates çalışması neticesinde günlük işlerini yaparken deneyimlediği farkı şöyle dile getirmiştir: *“Çok farklılık var, çok daha enerjik oluyorum... normal, evde bile yürürken yürüme şeklimde bir farklılık hissediyorum. Tempom daha hızlandı diyeyim, arttı...Koltukta oturup kalkmam bile, arabaya binip inmem bile, yolda yürümedeki vücut posturu, duruşu bile çok fark etti.”* Cerrah olan Katılımcı 11, 8 yıldır haftada 2 kez 1 saat süreyle yaptığı Pilates metodu ile iş performansındaki değişimi şöyle dile getirmiştir: *“mesleğim uzun süre ayakta kalmamı gerektiriyor. Bu anlamda performansımı pozitif yönde etkiliyor kesinlikle dayanıklılık olarak.”* Diş hekimi olan Katılımcı 24 de, 3 yıl boyunca haftada 2 kez 1 saat süren Pilates metodunun etkisiyle bu konuda şunları ifade etmiştir: *“meslek açısından sürekli aynı pozisyonda eğilerek çalıştığım için, zaten meslek hastalığı olarak da boyun kaslarımın çok kasıldığını hissediyordum. Teşhis konmuş bir boyun fitiği yok ama, çok kasılmış hissediyordum kaslarımı, onların oldukça rahatladığını hissediyorum şu anda.”*

Bu çalışmanın diğer önemli sonuçlarından biri de Pilates metodunu düzenli uygulamanın kişilerarası ilişkilere olan olumlu etkileridir. Bu sonuç, gruplarla yapılan aktivite sayısı ve sosyal aktivitelerin üniversite öğrencileri tarafından olumlu belirleyiciler olduğu ifade edilen Cooper ve diğ. (1992) tarafından yapılan çalışma sonucu ile benzerlik göstermektedir. Ayrıca Öpözlü ve diğ. (2006) de çalışmalarında yer alan katılımcıların rekreasyon aktivitelerine daha çok

arkadaşlarıyla (%60.3) katıldıklarını belirtmişlerdir. Bu konuda Katılımcı 11 şunları dile getirmiştir: *“arkadaşlarımla ilişkiyi etkiliyor aslında, onlara karşı, ki çoğu Pilates yapıyor arkadaşlarımla, Pilates'in her birimizin ruhuna iyi geldiği savını ortalıkta beraber konuştuğumuz zaman, bunun sosyal ilişkilerimi de etkilediğini düşünüyorum.”* Bunların yanında, Babayiğit (2009), 12 haftalık, haftada 3 kez, 1 saat süreyle yapılan Pilates egzersizlerin 65 yaş üstü kadınlarda sosyal yaşamı olumlu etkilediğini göstermiştir. Örneğin, 56 yaşındaki 2 yıldır haftada 1 saat süreyle düzenli Pilates metodunu yapan Katılımcı 18 bu konuda şöyle demiştir: *“ben çocuğumla beraber yaptığım için çok daha eğlenceli oluyor.”*

Özetlenecek olursa, bu bölümde demografik bilgilerden elde edilen bulgular ve araştırma soruları ışığında fiziksel, psikolojik, öz-kimlik, iş ve günlük yaşam ve kişiler arası ilişkiler üzerine Pilates metodunun etkileri tartışılmıştır.

SONUÇ

Bulgular ve tartışma bölümünde, nitel bulgular özetlenip, zihin-beden egzersizleri konusundaki diğer çalışma bulgularıyla, çeşitli fiziksel aktivite ve Pilates metodu literatürüyle karşılaştırılmıştır.

Zihin-beden argümanı gibi tartışmaya açık olan nitel bulgular ile Pilates metodu literatüründen kaynaklanan tartışmalar yapılmıştır. Çünkü, Pilates metodu başlangıç, orta ve ileri seviyelerdeki uygulayıcılar için fiziksel ve psikolojik olduğu kadar duygusal ve sosyal yönleri de kapsamaktadır. Farklı fiziksel ve mental egzersizlerin bir bileşimi olan Pilates metodunun uygulayıcılarına fiziksel ve psikolojik olarak farkındalık yanında kendileri hakkında duygusal ve sosyal olarak da farkındalık sunması konusu gündeme getirilmiştir.

Aşağıdaki sonuçlar Pilates metodunu düzenli uygulayan kadınların fiziksel ve psikolojik iyi oluşa etkileri konusundaki görüşlerinin ortaya çıkarılmasının araştırılmasına dayandırılmıştır.

1. Pilates metodunu düzenli uygulamak ağrının hafifletilmesi, enerji, kuvvet, esneklik, duruş, vücut farkındalığı ve nefesin geliştirilmesi ile ilgili fiziksel sağlık parametrelerinde kadınların iyi oluşlarına olumlu etkiler sağlamıştır.

2. Pilates metodunu düzenli uygulama neticesinde karamsarlık, depresyon, stres ve endişe bozukluğu ile baş etmede; konsantrasyon becerisinin geliştirilmesinde; duygu durumları konusunda mutlu, memnun, huzurlu, rahatlamış, sakin ve olumlu ruh hali sağlayarak psikolojik sağlık parametreleri üzerinde kadınların iyi oluşlarına olumlu etkileri olmuştur.

3. Pilates metodunu düzenli uygulamak vücut ve kişilik özellikleri konusunda farkındalığı arttırarak, öz saygı ve öz güveni geliştirerek kadınların öz kimlik algılarında olumlu etkilere neden olmuştur.

4. Pilates metodunu düzenli uygulamanın enerji, yaşam gücü, motivasyon ve konsantrasyon sağlaması, toleransı, cesareti, ve ilgiyi artırması ve girişimci hissettirmesi sonucunda kadınların günlük rutinlerini yerine getirmede, iş performansında ve yeni aktivitelere başlamaları konusunda olumlu etkileri olmuştur.

5. Pilates metodunu düzenli uygulamak tolerans, motivasyon, iletişim ve dayanışmayı artırarak sosyal bağlar, kişiler arası ilişkiler ve sosyal farkındalık konularında kadınların memnuniyetlerine olumlu etki sağlamıştır.

Pilates metodunun, zihin ve beden arasındaki farkındalığı artırmasıyla kadınların iyi oluşları üzerine önemli katkıları olduğu ortaya çıkarılmıştır. Olumlu etkilenen alanlar olan günlük aktiviteler, iş yaşamı, kişilik özellikleri ve kişiler arası ilişkiler üzerinde fiziksel, psikolojik, duygusal ve sosyal değişimlerin etkisinin olduğu görülmüştür. Bu değişikliklerin temelinde, artan zihin bağlantısıyla fiziksel sağlık durumunun gelişmesi sayesinde vücut ile yeni bir ilişki kurmanın olduğu görülmüştür.

Bu etkilerden fiziksel sağlık üzerindeki yararların, psikolojik yararlarla karşılaştırıldığında daha etkili olduğu görülmüştür. Bu nedenle, Pilates metodunun çoğunlukla fiziksel etkileriyle ön planda olduğu ve psikolojik alan yanında duygusal ve sosyal alanlara göre daha fazla hareket odaklı etkilere sebep olduğu dile getirilebilir. Ancak, Pilates metodunun olumlu katkılarının olduğu ifade edilen psikolojik, duygusal ve sosyal alanların da bu metodun sağladığı fiziksel katkılarından kaynaklandığını düşündürmektedir. Elde edilen bulgularla, Pilates

metodunun yardımıyla hareket etme ve harekete geme kabiliyetinin geliřtirilerek kiřinin duyguları ve ruh halinin doėrudan ve kolayca deėiřip dzenlenebileceėi nerilebilir. Kiřinin gnlk hayatındaki iřlevselliėi ve psikolojik iyi oluř halinin artmasının, vcudundaki olumlu deėiřiklikler sonucunda yařam kalitesinin artarak kendini daha rahat hissetmesiyle meydana gelebileceėi dile getirilebilir.

zetle, bu alıřmaya katılmıř olan kadınların byk oėunluėu Pilates metodu ile vcutlarını doėrudan antrene ederek nemli deėiřimler deneyimlemiřlerdir. Bu deėiřikliklerin oėunun geniř kapsamlı ve fiziksel olmanın yanında psikolojik, duygusal ve sosyal katkılara da neden olacak řekilde, zihin-beden iliřkisini entegre etmiř olmalarından kaynaklandıėı grlmektedir. Bu alıřma, Pilates metodunu dzenli uygulayan kadınların grřlerini ifade etmeleri neticesinde, fiziksel ve psikolojik iyi oluř hallerine olan olumlu etkilerine zellikle vurgu yapmıřtır.

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