

Role of Physical Activity in Positive Psychology Perspective

Pozitif Psikoloji Perspektifinde Fiziksel Aktivitenin Rolü

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ABSTRACT

Throughout the history of humanity, the question of what constitutes a good life has been a significant topic. Various philosophers have attributed different meanings to the concepts of well-being and happiness. Some associate a good life with a list of virtues, while others emphasize the importance of pleasurable feelings. Positive psychology emerged as an approach that emphasizes well-being and acknowledges happiness as a fundamental goal. The concept of well-being is defined in various ways to describe a positive state experienced by individuals and societies. Well-being encompasses both hedonic and eudaimonic approaches. Positive psychology utilizes scientific methods to understand well-being and examine the nature of happiness. According to the World Happiness Report, Turkey's low ranking in the international evaluation of happiness levels indicates a need for improvement in well-being areas. Globally, identifying the factors that can enhance happiness and quality of life, especially in countries that rank lower, is crucial for societies. Public policies and strategies need to focus on promoting happiness and well-being to enhance the welfare level of society. There is growing evidence that physical activity increases happiness levels and improves quality of life. Therefore, physical activity promotion may be an effective strategy for increasing happiness levels and has important potential for supporting societal well-being.

Keywords: Happiness, physical activity, positive psychology, well-being

ÖZ

İnsanlık tarihinde, iyi bir yaşamın nasıl olabileceği önemli bir konu olmuştur. Farklı filozoflar iyi yaşama çeşitli anlamlar yüklemiştir. Bazıları iyi bir yaşamı erdemlerin bir listesiyle ilişkilendirirken, diğerleri zevkli duyguların önemini vurgulamıştır. Pozitif psikoloji, refahı vurgulayan bir yaklaşım olarak ortaya çıkmıştır ve iyi oluşu temel bir amaç olarak kabul eder. İyi oluş kavramı, bireyler ve toplumlar tarafından deneyimlenen olumlu bir durumu tanımlamak için çeşitli şekillerde tanımlanmaktadır. İyi oluş, hedonik ve eudaimonik yaklaşımları kapsamaktadır. Pozitif psikoloji, iyi oluşu anlamak ve mutluluğun doğasını incelemek için bilimsel yöntemler kullanmaktadır. Dünya Mutluluk Raporu'na göre Türkiye'nin mutluluk düzeyinin ülkeler arası değerlendirmede alt sıralarda yer alması, iyi oluş konularında iyileştirmeye ihtiyaç olduğunu göstermektedir. Küresel olarak özellikle alt sıralarda yer alan ülkelerin mutluluk ve yaşam kalitesini artıracak faktörlerin belirlenmesi toplumlar için önemlidir. Kamu politikalarının ve stratejilerinin toplumun refah düzeyini artırmak için mutluluğu ve iyi oluşu teşvik etmeye odaklanması gerekmektedir. Fiziksel aktivitenin mutluluk seviyelerini artırdığı ve yaşam kalitesini iyileştirdiğine dair giderek artan kanıtlar bulunmaktadır. Bu nedenle, fiziksel aktivitenin teşvik edilmesi bireylerin mutluluk seviyelerini artırmak için etkili bir strateji olabilir ve toplumsal iyi oluşu destekleme konusunda önemli bir potansiyele sahiptir.

Anahtar sözcükler: Fiziksel aktivite, iyi oluş, mutluluk, pozitif psikoloji

Introduction

The question of how life can be improved is considered one of the most important issues of humankind. Throughout history, different philosophers have assigned various meanings to the subjective definition of well-being. Some have argued that the most desirable life can be defined by a list of favorable traits such as virtue, whereas others have suggested that pleasurable feelings are the essence of well-being. While Aristippus claimed that hedonism was the best approach to living a good life, Aristotle argued that stoicism was the best approach (Thanh 2023). With the emergence of positive psychology, researchers started examining well-being using scientific methods (Baysal 2022). There are two main approaches to well-being: subjective (hedonic) and psychological (eudaimonic) well-being (Ryff 1989). Hedonic well-being focuses on the balance between pleasure and pain, while eudaimonic well-being is defined as the realization of human capacities that are central to virtuous activities (Ryan and Deci 2001). The positive psychology approach is aimed at understanding well-

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Received: 03.03.2024 | **Accepted:** 06.07.2024

being, as well as examining the nature of happiness (Kashdan et al. 2008). Interest in the concept of happiness, which has often been regarded as the fundamental purpose of life throughout the history of philosophy and psychology, has increased with the rise of the positive psychology movement (Diener 2000).

Positive psychology emerged as a reaction to the psychopathology-oriented perspective by emphasizing people's strengths. This approach emphasizes the importance of well-being and acknowledges happiness as a fundamental goal (Diener 1984, Ryff 1989, Seligman and Csikszentmihalyi 2000). The concept of well-being is used in various senses and is defined in different ways. Well-being refers to a positive state experienced by individuals and societies and, like health, is an important resource for daily life. The well-being of a society is closely related to its resilience, capacity to take action, and ability to overcome challenges (World Health Organization [WHO] 2021a, 2021b). The subject of well-being is an area of important contributions to the psychology literature (Springer and Hauser 2006). Discussions in this area are often prioritized in developed democracies and involve complex academic, political, and cultural dimensions (Ryff 2022). Complexity in the definition and measurement of well-being is fueled by long-standing debates based on philosophical, sociological, psychological, and economic perspectives. Historically, well-being research has been shaped by the eudaimonic and hedonic perspectives, but there is still no definitive definition (Kesebir 2018). Modern research emphasizes that well-being is a multidimensional concept and is associated with various factors, such as positive affect, life satisfaction, happiness, and personal development (Ruggeri et al. 2020). Empirical research on happiness is increasing in the behavioral and social sciences (Helliwell and Aknin 2018).

The happiness levels of societies are being studied worldwide. The annually published World Happiness Report (Helliwell et al. 2024) ranks countries based on their happiness levels, life satisfaction, and well-being outcomes. According to the latest report, Finland has the highest happiness level among 143 countries, Afghanistan has the lowest, and Turkey is ranked 98th (Helliwell et al. 2024). These results demonstrate the importance of forming action plans for the development of public policies and strategies, especially for lower ranked countries. This is because individuals with low happiness levels are susceptible to psychological disorders and this results in deterioration of societal health (Gilgur and Ramirez-Marquez 2020, Chen et al. 2022). Therefore, the use of effective methods to increase happiness levels is necessary for the well-being of societies. The literature shows that physical activity is used as a method that has positively impacts on happiness (Lathia et al. 2017, Zhang and Chen 2019). This suggests that physical activity can be used as an effective strategy to increase the happiness levels of individuals and societies.

Physical activity has been associated with happiness (Richards et al. 2015, An et al. 2020). The WHO (2020) recommends engaging in varying levels and intensities of physical activity from childhood to older age for well-being. Despite sufficient evidence showing that physical activity enhances life satisfaction and quality across different age groups (Chen et al. 2020, Parra-Rizo and Sanchis-Soler, 2020, Chmelik et al. 2021), global trends indicate that physical inactivity has become a significant issue. Inactivity or low levels of physical activity are associated with unhappiness and poor mental health among specific populations (Ellingson et al. 2018, Redig et al. 2022). Research demonstrating that physical activity can improve overall life satisfaction and quality have focused on the psychological or physiological aspects of physical activity to show how it can more efficiently increase happiness (Mohammadi et al. 2015, Zhang and Chen 2019). These results provide an international reference for the observation of happiness levels and quality of life in different countries. The present study aims to address individuals' well-being and happiness by examining various dimensions of well-being, the development of positive psychology and happiness research, and the relationship between physical activity and happiness, and to transform this knowledge into applicable strategies for society.

Positive Psychology

The purpose of this field is to identify and develop the human strengths and virtues that make life valuable, thereby allowing individuals and societies to flourish (Seligman and Csikszentmihalyi 2000). Its main principle is that enabling people to live happier and more satisfying lives is as important as fixing or treating their pathologies (Lyubomirsky 2007). Positive psychology was conceptualized in the late 1990s as having three main concerns. The first of these is positive subjective experiences such as joy, happiness, flow, hope, and optimism. Secondly, it focuses on the individual, being concerned with people's virtues and favorable personality traits such as wisdom, open-mindedness, courage, and perseverance. Thirdly, at the social psychology level, positive psychology aims to identify, examine, and develop the qualities of social institutions that maintain and enhance individuals' positive subjective experiences and favorable traits (Seligman and Csikszentmihalyi 2000). Seligman (2011) stated that positive psychology is characterized by a commitment to serve humanity and addresses fundamental issues such as health, well-being, and satisfaction without being limited to university walls.

Positive psychology examines the relationships between groups and individuals and focuses on positive personal traits, or strengths, with the goal of creating the best possible quality of life. It also highlights the role of relationships and positive experiences and how they can contribute to individual health, well-being, and development (Peterson and Seligman 2004). Martin Seligman, one of the pioneering researchers in the field, suggested that positive psychology should focus on positive affect, engagement, relationships, meaning, and accomplishment (PERMA) rather than just happiness (Seligman 2011). Positive psychology examines positive emotional states such as gratitude, optimism, and resilience, and studies in these areas often address factors that prevent mental illness. Positive psychology encourages the development of these preventive strategies, which have a major impact in social and occupational contexts (Wong 2019). Therefore, it can be said that positive psychology has become a scientific research field focused on identifying preventive factors and studying optimal human development and functioning rather than focusing on mental disorders. It has been observed that psychologists have not provided sufficient help to mentally healthy individuals (Ngamaba et al. 2017). Consequently, positive psychology should focus on themes such as hope, wisdom, tolerance, creativity, vision, courage, spirituality, responsibility, and perseverance instead of focusing on disease and treatment. This is because for many people, mental disorders are associated with feelings of meaninglessness and purposelessness (Seligman and Csikszentmihalyi 2000). It can be said that positive psychology encourages the development of these impactful preventive strategies.

In psychology literature, a new movement called the "Second Wave" emphasizes the necessity of including life's negative emotions in well-being (Wong 2011). Positive psychology examines not only the positive aspects of life but also the most challenging and painful experiences, highlighting their positive role in human development and transformation (Ivtzan et al. 2015). Wong (2011) states that not all problems can be solved with positive emotions alone. This new approach aims to achieve well-being by accepting and transforming the dark side of human existence. Overcoming pain and difficulties is emphasized as important for sustainable well-being and a meaningful life. Therefore, positive psychology is used as an umbrella term that allows individuals to experience positive and negative experiences in a balanced and harmonious way (Wong 2019). In this context, the dialectic of positive and negative phenomena is important for positive psychology and provides a means of achieving sustainable happiness and well-being.

Happiness

In ancient Greece and even earlier, people wondered about the nature of a "good life." As to the questions of what makes life desirable and determines a high quality of life, it has been suggested that the answer is feeling and thinking one's life is desirable, regardless of the views of others (Rabbås et al. 2015). From Aristotle's time to the present, happiness has been considered the most important goal in life (Thanh 2023). Happiness is acknowledged as a fundamental human goal in many cultures and is usually characterized as an internal state independent of external factors such as wealth or power (Thin et al. 2017). It refers to a mental inclination that relies not on external conditions but is based on inner peace (Fulgêncio 2019).

The pursuit of happiness is emphasized as a positive experience, especially in Western culture, and pleasure is often perceived as the basis of well-being (Joshnloo 2014). However, happiness implies more than a simple pursuit of pleasure. Happiness involves living a happy life with acceptable physical and psychological health (Seligman and Csikszentmihalyi 2000). Lyubomirsky et al. (2005) proposed that genetic factors account for 50%, circumstances for 10%, and intentional activities for 40% of an individual's happiness level, a notion that has been long upheld. Genetic factors are considered as largely unchanging genetic chance throughout one's life, a claim supported by research on twins (Lykken and Tellegen 1996). However, more recent research, such as that by GÜDÜ Demirbulat and Avcıkurt (2015) on intentional activities and Menteş (2020) on life circumstances, suggests that these factors may play a larger role than previously thought in explaining individual differences in happiness levels (Aydoğdu Bıçak and Çolpan Erkan 2020). Such studies highlight the continuous interaction between biology and environment and shows that this dynamic process influences individual behaviors and that genetic predispositions are not the sole determining factor (Layous and Lyubomirsky 2014). Some determinants of happiness, such as social relationships and health, may change with age. However, when one looks at all age groups, it can be said that people are more or less happy (Fernandez-Portero et al. 2023).

Various adverse childhood events (e.g., abuse, poverty, depression) are known to impact the long-term physical and mental health of adults (Monnat and Chandler 2015, Nelson et al. 2020). Children exposed to emotional, physical, or sexual abuse and similar adverse events are at risk of facing a variety of negative health consequences in adulthood (Hughes et al. 2017). These risks include mental health problems, chronic diseases, functional limitations, and premature death (Merrick et al. 2017, Tzouvara et al. 2023). It is thought that this can also

influence an individual's happiness. (Merrick et al. 2017). Although the concept of happiness carries the same meaning as well-being (Joshi 2010), the term "happiness" is more commonly used in everyday language (Deci and Ryan, 2008). In the literature, while these terms are often used interchangeably, theories explaining empirical differences in concepts suggest similarities.

Well-Being

The term well-being is used and defined in many different ways, including holiness or virtue, pleasant emotional experience, the subjective evaluation of life using positive concepts, optimal psychological functioning, and the realization of human potential (Diener 1984, Ryff 1989). It is also used in association with various concepts such as life satisfaction, positive mental health, spiritual development, resilience, self-esteem, self-efficacy, and quality of life (Huppert 2017). When evaluated individually, well-being also includes the negative aspects of a person's subjective evaluation of their life.

Well-being is divided into eudaimonic and hedonic aspects (Ryan and Deci 2001). Hedonic well-being focuses on the balance of pleasure over pain, and Aristippus is considered one of its earliest proponents (435 BC - 356 BC) (Biswas-Diener et al. 2009). While many philosophers have questioned the hedonic tradition's focus on what is good for people, well-being according to the eudaimonic tradition has been defined as the knowledge and self-actualization central to virtuous activities (McMahon 2016). Aristotle (384 BC - 322 BC) is seen as one of the important proponents of eudaimonic well-being. Aristotle stated that eudaimonic well-being is more than simply being happy and is related to the realization of human potential (Huta and Ryan 2010).

Hedonic well-being, which typically focuses on present or short-term happiness, can be defined as the presence of positive emotions and the absence of negative emotions. Eudaimonic well-being, on the other hand, focuses on experiencing a full and deep sense of satisfaction. The hedonistic approach is based on engaging in pleasurable activities and avoiding pain, while the eudaimonic approach seeks a state of self-actualization, which is characterized by reaching one's full potential (Ryan and Deci 2001). Hedonic well-being is prominent in Western societies, while eudaimonic happiness is prominent in Eastern societies (Joshani 2014). Both the eudaimonic and hedonic aspects are strongly linked to happiness (Ryan and Deci 2001). Psychologists with a eudaimonic perspective tend to focus on meaning and development in their research on human well-being, arguing that the eudaimonic approach provides a more holistic perspective. The nature of eudaimonic well-being also leads to greater hedonic well-being (Chen and Zeng 2021).

Today, the term hedonic well-being is less used in the social and behavioral sciences. One of the reasons for this is that hedonism, a theoretical concept that is not based on data, is difficult to measure (Baselmans and Bartels 2018). Scientists have turned to empirical scientific methods to characterize well-being (Diener 2009). The definition of subjective well-being proposed by Diener to redefine the concept of hedonic thinking has been widely adopted. He stated that the basic characteristics of well-being are that it is subjective, involves not only the absence of negative factors but also positive measures, and includes a global assessment of life (Diener 1984). Subjective well-being is a key phenomenon within the hedonic tradition and refers to a cognitive and emotional assessment of a person's life. It consists of two basic components: cognitive (life satisfaction) and emotional (positive/negative affect). Life satisfaction is a subjective evaluation of the quality of life based on personal criteria (Lucas et al. 2018). The emotional component refers to happiness and the person emotionally evaluates the intensity and content of happy moments in their life. Although subjective well-being is included in the literature under the heading of positive psychology, it indicates a feeling of complete well-being based on the subjective judgment of the individual (Diener 2009). The term eudaimonic well-being has also changed over time to refer to psychological well-being, which is assessed in six basic dimensions: self-esteem, personal growth, autonomy, life purpose, positive relationships with others, and environmental mastery (Ryff and Keyes 1995). Subjective well-being and psychological well-being offer various measures for understanding the well-being of individuals, communities, and societies (Diener 1984, Ryff 1989). Positive psychology is considered a science that investigates well-being (Diener 2009).

The science of psychology has demonstrated the need to focus not only on individuals' maladaptive characteristics but also on the adaptive traits and processes that contribute to well-being (Şimşek 2009). Thus, positive psychology emerged in response to a psychopathology-oriented view of human functioning and focuses on investigating psychological strengths rather than human weaknesses (Seligman and Csikszentmihalyi 2000). This paradigm emphasizes the need to demonstrate which behaviors lead to well-being, which is one of the main goals of psychology (Şimşek 2009). Research on psychological health has generally focused on negative health (e.g., anxiety, depression). However, there is now growing interest in examining the positive elements of mental

health as well as negative elements. Well-being is influenced by social, economic, and environmental factors and improves the quality of life (WHO 2021b). Many studies have associated subjective well-being with health and death (Martín-María et al. 2017, Petrie et al. 2018).

Health is regarded not only as the absence of disease, but also as the presence of both hedonic (pleasure) and eudaimonic (meaning/purpose of life) happiness (Lambert et al. 2015). Similarly, WHO (2021a) states that health cannot be evaluated only as the absence of disease or disability, but requires the achievement of complete physical, social, and mental well-being. Studies show that a belief that life has meaning or purpose is associated with better mental and physical health and healthier lifestyles (Czekierda et al. 2017, Marco et al. 2017). Many types of physical activity are considered beneficial for both mental and overall health.

Physical Activity

Physical activity refers to any bodily movement produced by the skeletal muscles that causes an individual to expend more energy than their basal level (Sigal et al. 2018). In simpler terms, physical activity includes all movement-based activities, such as sports, walking, cycling, and other active recreation and play (WHO 2020). Health and wellness include the individual's physical, mental, and social well-being (Mburu-Matiba 2015). Health is not considered just an objective of life, but also a resource for daily life. A study conducted by Pasanen et al. (2019) suggested that planning physical activity may provide additional benefits. Therefore, it is important to understand current activity behaviors in order to establish appropriate physical activity programs for specific populations (Treuth et al. 2022). The positive effects of physical activity on health are recognized as an important strategy to improve overall health and reduce risk of disease (Sackner et al. 2020, Ginis et al. 2021, Li and Ning 2022). However, it is known that countries that cannot meet the globally recommended physical activity levels face physical and mental problems due to sedentary lifestyles (WHO 2019a).

Inactivity poses a significant health risk to individuals, potentially contributing to serious health problems such as diabetes, heart disease, stroke, and cancer (Katzmarzyk et al. 2022). A large-scale study by Gerovasili et al. (2015) including 19978 participants revealed that weekly physical activity levels decreased with age among adults in Europe between the ages of 18 and 64. Similarly, a global study by Guthold et al. (2018) showed that more than one in four adults worldwide could not meet the recommended levels of physical activity (at least 150 minutes of moderate-intensity activity per week). WHO (2019a) global assessments also indicated that 81% of the adolescent population and a quarter of adults do not engage in the recommended level of physical activity. In economically developing countries, inactivity levels can reach up to 70% due to factors such as transportation models, technology use, cultural values, and established behaviors. Increasing levels of inactivity negatively affect the environment, economic development, health systems, societal well-being, and quality of life (WHO 2020). Therefore, it is important to encourage physical activity and make it a lifestyle (DiPietro et al. 2020).

Relationship Between Physical Activity and Positive Psychology

Positive psychology encompasses a wide field of study and is multidisciplinary in nature. This is exemplified by the research being conducted in the field of sports on the relationship between physical activity and levels of well-being and happiness (Cooper and Barton 2006, Bell et al. 2019, Morris and Roychowdhury 2020). At the societal level, there is evidence that communities where physical activity is widely practiced may be healthier and have higher social capital (Faulkner 2019). Physical activity, which is an important factor in improving global public health, has been shown to have positive effects on psychological and physical health outcomes (Warburton and Bredin 2017, Shaw et al. 2023).

Physical Activity and Health

The WHO (2020) offers physical activity recommendations of different levels and intensities for a wide range of demographics, including people of all age groups, pregnant and postpartum women, and individuals living with chronic diseases or disabilities. Adults are recommended to engage in 150-300 minutes of moderate-intensity physical activity or 75-150 minutes of high-intensity physical activity per week, or any equivalent combination of these. The Turkish Guideline on Physical Activity (Sağlık Bakanligi 2014) highlights the health benefits of doing moderate- to high-intensity aerobic activity for an average of 60 minutes a week for children and adolescents, but also emphasizes the importance of regular muscle strengthening exercises for all age groups and recommends the reduction of sedentary behaviors. The beneficial effects of a physically active lifestyle on reducing the risk of chronic disease and improving mental health are significant. Physical activity is said to contribute to well-being through outcomes such as delaying the onset of dementia and helping maintain a

healthy weight (Livingston et al. 2020). On an individual level, physical activity can help prevent mental illness, alleviate stress, generate positive affect, and facilitate personal growth in the wake of challenges (Faulkner 2019, Stubbs et al. 2018).

Mental illness is considered a global concern that affects millions of people. Worldwide, more than 264 million people are affected by depression and more than 284 million by anxiety (GBD 2017 Disease and Injury Incidence and Prevalence Collaborators 2018). Furthermore, it is estimated that 30% of the world's population suffers from a mental disorder (Steel et al. 2014). Physical activity plays an important role in shaping psychological factors and health behaviors (Sheeran et al. 2018), and psychological factors are also linked to physical activity and health status. In a study conducted by Rouch et al. (2014), individuals diagnosed with metabolic syndrome reported low perceived health and decreased life satisfaction. In another study, anxiety, pessimism, depression, and hostility were found to be associated with low physical activity levels, unhealthy eating habits, increased risk of developing metabolic syndrome, and poor prognosis (Reichenberger et al. 2018). In contrast, positive affect, life satisfaction, and positive traits such as optimism and self-esteem were associated with a lower risk of developing metabolic syndrome (Boylan and Ryff 2015). This relationship may be explained by the facilitation of healthy behaviors by positive psychological factors (Choi et al. 2019). For example, enjoyment from physical activity is a predictor of physical activity intention and behavior in healthy people, while optimism and positive affect may contribute to adaptation to physical activity and other health-promoting behavior (Van Cappellen et al. 2018).

Participation in regular physical activity may reduce the prevalence, morbidity, or mortality of leading causes of death (Zhou et al. 2017, Min et al. 2020, Zhao et al. 2020). A study conducted by Bowden Davies et al. (2018) showed that even short-term inactivity can have detrimental effects on the physical health of healthy individuals as well as individuals with previous pathological findings. In their study of 6728 individuals between the ages of 20-88 years, Galper et al. (2006) reported that an increase in routine physical activity was cross-sectionally associated with greater well-being.

Participation in regular physical activity can provide many physiological and psychological benefits to individuals in addition to reducing all-cause deaths. The considerable impact of physical activity on overall well-being has been attributed to a change in self-efficacy and ability to perform the actions necessary to meet situational demands. This change was highlighted as the most prominent variable affecting psychological health and well-being (Leyland et al. 2019). Physical activity not only offers obvious physical health benefits, but also has a significant impact on mental well-being. Research shows that individuals with low physical activity levels often have higher morbidity rates and greater health expenditures, leading to recommendations of activity to address these challenges and promote mental well-being (Hupin et al. 2017, Santos et al. 2023). Experimental studies have demonstrated that physical activity shows a consistent relationship with positive mental health characteristics. More research is needed to understand the physiological and psychological mechanisms through which physical activity improves mental health, especially considering its effects on self-concept and body image (Mahindru et al. 2023). Regular physical activity to improve quality of life in individuals with nonpsychiatric illnesses was reported to potentially help alleviate the symptoms of certain diseases, especially fibromyalgia (Masquelier and D'haeyere 2021).

Physical activity is considered an important focus in well-being research (Mutz et al. 2021). Previous studies show that physical activity is consistently positively correlated with health-related quality of life (Sigvartsen et al. 2016), happiness (Richards et al. 2015), and life satisfaction (Urchaga et al. 2020). In this context, physical activity has positive effects on well-being in all age groups, from young to old, and from adults to children (Lera-López et al. 2017). Observational and intervention studies show that even low levels of physical activity can lead to significant increases in well-being (White et al. 2017, Wiese et al. 2018, Zhang and Chen 2019). Downward and Dawson (2016) noted in their study that lower-intensity physical activity was associated with overall well-being levels.

Physical Activity and Well-Being in Different Age Groups

There are studies in the literature that examine specific populations based on the amounts of physical activity recommended by the WHO (2020) for different age groups. For example, international guidelines recommend that children engage in moderate to intense physical activity for at least 60 minutes a day on average because of its critical impacts on health (Bull et al. 2020). In recent years, there has been a growing interest in children's well-being and affective enjoyment (Jovanović et al. 2019, Tomyň et al. 2017). Physical activity has also received increasing attention due to its positive effects on cognitive function and physical health as well as subjective and

psychological well-being (Li et al. 2018, Festa et al. 2023, White et al. 2023). Physical activity is recognized as important for mental and physical health during development (Park and Wang 2019, Dhuli et al. 2022). Participation in physical activity was shown to be positively correlated with well-being and negatively correlated with anxiety and depressive symptoms (McMahon et al. 2017), and also improved self-concept and self-worth (Liu et al. 2015). However, the WHO (2020) reported that more than 70% of children did not meet their recommendations and had insufficient physical activity. It has been suggested that children who experience negative affect for any reason during childhood, especially during physical activity participation, become avoidant of physical activity and accordingly adopt a sedentary lifestyle that may cause sedentary behavior later in life (Cardinal et al. 2013). Given the positive impact of physical activity on health and well-being (Stenseng et al. 2015), it is important to prevent negative experiences during physical activity in childhood. In this context, it can be argued that more research is needed to effectively sustain the relationship between physical activity and happiness during the developmental stages and to potentially transform early negative affect into positive outcomes.

Well-being among adolescents has become an important public health issue (Steptoe 2019), as low subjective well-being in adolescence can contribute to low self-esteem, poor academic performance, behavioral and social problems, and depression (Bücker et al. 2018). It is suggested that increased happiness, which is considered one of the most fundamental goals of life, is also an important prerequisite for the overall health of adolescents (Biddle et al. 2019). Happiness was also shown to be associated with physical activity in adolescents. Daldaş and Erturan (2024) determined that physical activity had a positive effect on adolescents' mental well-being, subjective fitness, and happiness levels. There are two complementary mechanisms that explain the relationship between happiness and physical activity. Interestingly, these mechanisms indicate a bidirectional relationship between the two concepts. The direct effect of physical activity on happiness can be attributed to physiological processes (van Woudenberg et al. 2020). Physical activity increases transmission of serotonin, dopamine, and norepinephrine in the brain and increases endorphin production (Alghadir et al. 2020). Both of these physiological responses are reported to support well-being by reducing depressive symptoms and anxiety (Belcher et al. 2021). In contrast, the effect of happiness on physical activity can be explained through cognitive and emotional processes, including theories such as planned behavior theory, self-determination theory (Ryan and Deci 2022), and affective behavioral change models (Ekkekakis et al. 2013). As noted above, positive affect has been shown to favorably influence physical activity intentions, while negative affect has an unfavorable impact on physical activity intention (Catellier and Yang 2013). However, in a longitudinal study examining the relationship between physical activity and well-being among adolescents, there was no relationship between initial physical activity levels (measured by accelerometry) and mental well-being three years later. The researchers emphasized that repeated measurements over time should be included to understand the direction of this relationship (Barth Vedøy et al. 2021). Akgül and Karafil (2021) concluded in their study that social support for physical activity received by middle school students had a significant and positive effect on the students' psychological well-being. More research is needed to understand the impact of physical activity on mental health and vice versa (Richards et al. 2015, Bell et al. 2019).

Physical activity exhibits positive associations with life satisfaction and happiness. A comprehensive study conducted in 24 countries showed that young adults 18-30 years of age with moderate or high physical activity levels had higher life satisfaction, greater happiness, and better perceived health (Pengpid and Peltzer 2019). In another study, Brodani and Kovacova (2019) emphasized the importance of regular, voluntary physical activities, which have the potential to increase joy of movement in the lives of high school students. Similarly, it was reported that levels of both psychological well-being and life satisfaction increased in association with physical activity levels in university students (Çakır and Ergin 2023). These findings demonstrate the important role of physical activity in increasing happiness levels among the young population.

Recent research findings indicate that physical activity can improve the quality of life of adults of all conditions and ages. Yüceant (2023) reported that an 8-week physical activity program had favorable effects on stress, anxiety, depression, life satisfaction, psychological well-being, and levels of positive and negative affect in sedentary individuals. Walking is a common and readily accessible form of physical activity for adults, and dance is another affordable form of physical activity enjoyed by many people (Akarolo-Anthony and Adebamowo 2014). Individuals who engage in regular physical activity are healthier and more independent than those who are sedentary (Mutz et al. 2021). It is known that globally, more than a quarter of adults are physically inactive (getting less than 75 minutes of vigorous-intensity or 150 minutes of moderate-intensity activity per week as recommended). However, adults living in low- and middle-income countries are more active than those living in high-income countries (Guthold et al. 2018).

Engaging in physical activity during old age is crucial for individuals to age actively and successfully (Daskalopoulou et al. 2018). Physical activity provides numerous benefits for elderly individuals, including prevention of cognitive and physical function decline, improvement of mental health, and enhancement of social engagement (Szychowska and Drygas 2022). An et al. (2020) observed that physical activity was significantly associated with life satisfaction and happiness in young, middle-aged, and older adults, and found that life satisfaction and happiness increased with age. In another study, it was found that physical activity among individuals aged 65 and older is associated with higher levels of happiness compared to a sedentary lifestyle (García et al. 2014). Regular physical activity plays a critical role in preventing diseases, maintaining independence, and improving quality of life in elderly individuals. However, it is reported that a large proportion of elderly individuals worldwide do not meet the recommended levels of physical activity, highlighting the importance for healthcare professionals to prioritize awareness and promotion campaigns regarding the benefits of physical activity (Erdem et al. 2021).

The general consensus is that there is a strong relationship between physical activity and happiness (Zhang and Chen 2019). International studies have revealed that different intensities of physical activity levels have different effects on happiness level. Wicker and Frick (2015) and Downward and Dawson (2016) stated that moderate-intensity activities positively affect happiness while intense activities negatively affect happiness. However, more recent studies show that intense physical activity also has a positive effect on happiness (Wicker and Frick 2017, Zhang et al. 2022, Castellanos-García et al. 2023). The indirect effects of different intensities of physical activity on happiness have also been observed. Physical activity is believed to increase happiness through health and social capital. It is generally accepted that physical activity improves physical and mental health (WHO 2019b), and the positive relationship between health status and happiness is well established (Ngamaba et al. 2017). Physical activity is also reported to increase social capital (Pawlowski and Schüttoff 2019).

Conclusion

The link between physical activity and happiness has a profound effect on human health and well-being. Many studies show that regular physical activity improves people's overall quality of life and increases their level of happiness. Physical activity is acknowledged as an important strategy for maintaining health and preventing various diseases. However, recent studies have revealed that physical activity has significant effects not only on physical health, but also on mental health and well-being. Evidence suggests physical activity has an important role in combating mental health problems such as depression and anxiety. Positive psychological factors were shown to be effective in preventing and ameliorating physical health problems such as metabolic syndrome. Therefore, it should be emphasized that physical activity is important not only for physical health, but also for mental health.

The impact of physical activity on happiness can be attributed to a combination of many factors. First, physical activity can increase the release of hormones such as endorphins and serotonin, which can elevate a person's sense of happiness by improving their emotional state. Physical activity can also reduce stress, which positively affects mood. Individuals who engage in regular physical activity often experience less stress and have higher levels of well-being. Second, physical activity can increase a person's self-confidence. Feeling physically stronger and healthier can boost self-confidence and contribute to a more positive sense of self, which directly increases happiness. Moreover, physical activity can encourage social interactions. Physical activities such as group or outdoor activities bring people together and strengthen social bonds. Strengthening of social relationships can increase happiness and improve quality of life.

Recent studies have highlighted the important effects of physical activity on human health and well-being. These studies, which are examined in depth in the health literature and include various age groups, reveal the positive effects of physical activity on physical and mental health. In particular, it has been observed that physical activity plays a critical role in reducing the risk of chronic diseases and supporting mental health and overall well-being. Physical activity contributes to overall well-being in several ways, including delaying the onset of cognitive disorders such as dementia and supporting healthy weight control. These effects emphasize the importance of performing regular physical activity at the recommended levels, taking into account demographic differences. The WHO recommends that all age groups, from children to older adults, increase their levels of physical activity and avoid sedentary lifestyles.

Concepts such as well-being, life satisfaction, and happiness are also closely related to physical activity. In particular, it has been determined that regular physical activity has a positive effect on life satisfaction and happiness. In this context, it should be emphasized that physical activity is important not only in terms of

physical health, but also in terms of overall well-being and quality of life. However, it should be noted that the effect of physical activity may differ according to age, gender, and other demographic factors. For example, multicomponent physical activities for older adults are seen as more appropriate in terms of physical mental and physical health.

In conclusion, the positive effects of physical activity on health and well-being are widely recognized and studied. Therefore, individuals should be encouraged to engage in regular physical activity and various strategies should be developed to increase access to physical activity. In addition, it is important that individuals are guided to physical activity consistent with their needs, taking into account demographic differences. Physical activity has a strong impact on happiness and can help people lead happier and more fulfilling lives. In this context, promoting and supporting physical activity stand out as important strategies for increasing individuals' health and happiness. Societies should develop various policies and programs to increase access to physical activity and encourage individuals to adopt an active lifestyle. This may allow the cultivation of a healthier and happier society. The relationship between levels of physical activity and happiness is complex and should be examined accordingly. Moreover, further research is needed to effectively establish strategies regarding the effects of physical activity on happiness through health and social capital.

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Authors Contributions: The author(s) have declared that they have made a significant scientific contribution to the study and have assisted in the preparation or revision of the manuscript

Peer-review: Externally peer-reviewed.

Conflict of Interest: No conflict of interest was declared.

Financial Disclosure: No financial support was declared for this study.