Education Quarterly Reviews

The online version of this article can be found at:
https://www.asianinstituteofresearch.org/

The Asian Institute of Research *Education Quarterly Reviews* is a peer-reviewed International Journal. The journal covers scholarly articles in the fields of education, linguistics, literature, educational theory, research, and methodologies, curriculum, elementary and secondary education, higher education, foreign language education, teaching and learning, teacher education, education of special groups, and other fields of study related to education. As the journal is Open Access, it ensures high visibility and the increase of citations for all research articles published. The *Education Quarterly Reviews* aims to facilitate scholarly work on recent theoretical and practical aspects of education.

Investigation of the Effect of 8-Week Life Kinetic Training on Self-Confidence, Attention and Psychological Skill Levels in Sedentary Men Students

Ali Yildirim[1]

[1] High school of Physical Education and Sports / Kilis 7 Aralık University / Turkey.
Email: aliyildirim2784@gmail.com

Abstract

This research was conducted to examine the effect of 8-week life kinetic training on self-confidence, attention and psychological skill levels in sedentary men students. Fifteen sedentary men participated in the study and the research was conducted using the pretest-posttest research model. In order to collect the data, "D2 Test of Attention" developed by Brickenkamp (1981), "Self-confidence Scale" developed by Akın (2007), "Athletic Coping Skills Inventory" developed by Smith (1995) and personal information form were used. The data were evaluated with the SPSS 25.0 statistical package program and the significance level was considered as $p<0.05$. The normality test of the data was done with the Kolmogorov-Smirnov test, and the Wilcoxon test was used to compare the pre-test and post-test scores. According to the findings, no statistically significant difference was found between the 8-week life kinetic training sub-dimensions of sedentary men's self-confidence, attention and psychological skill levels ($p>0.05$). As a result, it could be argued that life kinetic training applied for eight weeks does not have a positive effect on increasing self-confidence, attention and psychological skill levels in sedentary men.

Keywords: Sedentary, Life Kinetics, Self-Confidence, Attention, Student

1. Introduction

A sedentary lifestyle is seen as living away from an active lifestyle. A sedentary lifestyle brings about very serious health problems and threatens human health very severely (Akdur et al., 2007). Sedentary behavior refers to the moment when the human body has very little or no physical exercise and the energy loss is almost at the same level as the resting pulse level. It is the pattern of behaviors in situations such as sitting at home, watching TV, lying down, reading a book, playing computer games at the desk, driving, eating and drinking, and other situations with little movement (Memiş, 2017).

Developed in Germany, life kinetic exercises are used as a training program that stimulates the neuronal learning process, which is practiced in many countries of the world today, increases new brain networks, reduces neural symptoms, and improves concentration and performance of the visual system (Lutz, 2011). Many different tools such as balls of different sizes and colors, ribbons, and colored circles are used for life kinetic exercises. In

addition, the materials to be used vary according to the sports branches such as racquet sports, team sports, individual sports (Ateş et al., 2019). With the effect of developing technology and opportunities in the recent age, the needs of adolescents and young children to apply what they have learned in their school and social lives now play a very essential role. It is normal to expect adults to have responsibilities in their family and business life, and to expect the elderly to be able to stay physically and mentally healthy. Indeed, these are not the things that will naturally occur by themselves, but the things that require an effort to occur (Lutz, 2012). Life Kinetics exercises are not only done in gyms, but they can also be performed anywhere such as in school, classrooms, office and home. You can use almost any material for the exercise by using your creativity (Neureuther, 2009).

Self-confidence, according to a definition, is the state of an individual to develop positive and optimistic feelings and thoughts towards himself/herself and to feel good about himself/herself. It is the situation in which individuals are at peace with themselves and those around them thanks to this good condition (Akagündüz, 2006). In another definition, it is stated as recognizing and knowing one's own abilities, self-confidence and self-love (Kasatura, 1998). Lindenfield (2011) divides self-confidence into inner confidence and outer confidence. Inner confidence consists of the individual's own feelings. On the other hand, external confidence is complementary to inner self-confidence. It is the behavior of the individual to show that s/he is satisfied with herself/himself and that s/he accepts and loves herself/himself.

Attention was defined 110 years ago by William James as the simultaneous receptiveness of one of several objects or trains of thought by the mind in a lively, focused manner. Focus, concentration, and awareness are the essence of attention. Attention is the selection of certain things to be handled more frequently than others (Tiryaki, 2000). The concept of attention is a general concept that includes all of the functions of prioritizing, sequencing, planning and organizing (Yazgan, 2002). People are faced with many stimuli throughout their lives, starting from the mother's womb. The conscious choices people make among the stimuli they encounter are explained with the concept of "attention" (Özmen, 2006). The concentration of consciousness at a certain point is called "attention." Attention affects people's perception levels and thus their learning skills (Asan, 2011). In other words, attention is defined as "selectively focusing on the elements that are the center of attention by putting aside other elements that are encountered" (Soysal et al., 2008). In its shortest definition, psychological skill refers to the development of activities and exercises, which are performed daily in a natural and routine way, in a special perspective such as sports and training. It also means the regular and consistent performance of mental and psychological skills in order to increase performance, perceived pleasure, or personal satisfaction from sports and physical activity.

When we look at the studies in the field of life kinetics, research studies on the effects of life kinetics on performance and cognitive level in sports have been conducted with athletes from different branches and students from different groups. Due to the limited number of studies on the effect of life kinetics on self-confidence, attention and psychological skills of sedentary individuals, we think that the results obtained with our research will contribute to the literature.

2. Method

For this research, it was aimed to examine the effect of 8-week life kinetic training on self-confidence, attention and psychological skills. 15 sedentary male students studying at Gaziantep Turgut Özal Secondary School were determined and the necessary permissions were received from the school administration.

The research was conducted using the pretest-posttest research model. First, the participants in the study were provided with the necessary information about the content of the study. Along with the warm-up and cool-down exercises, participants were given life kinetic training sessions lasting 45-50 minutes three days a week. Before starting the 8-week life kinetic training and after completing the 8-week life kinetic training, the Personal Information Form, the "D2 Test of Attention" developed by Brickenkamp (1981), the "Self-confidence Scale" developed by Akın (2007) and "Athletic Coping Skills Inventory" developed by Smith et al. (1995) was used to collect the data. At the end of 8 weeks, post-tests were applied to sedentary male students participating in the study and they were statistically analyzed.

2.1. Data Collection Tool

Personal Information Form: It includes questions created by the researcher to determine the demographic characteristics of the participants.

D2 Test of Attention: The D2 Test of Attention developed by Brickenkamp (1962) was used to determine the attention levels of the participants. The D2 test consists of 14 lines and 47 marked letters. It is performed to evaluate mental concentration and selective attention. As a result of the study conducted on the athletes, it was emphasized that the Cronbach's Alpha value was determined as Total Item (TI)=0.95, Total Item-Error (TI-E)=0.96, and Concentration Performance (CP)=0.96 (Çağlar & Koruç , 2006). According to the results of Yaycı's study, it was reported that the Cronbach's Alpha value of D2 Test of Attention on sedentary individuals was found to be Total Item (TI)=0.831, Total Item-Error (TM-E)=0.831, and Concentration Performance (CP)=0.877 (Yaycı, 2013).

Self-confidence Scale: As a data collection tool in the study, the 33-item "Self-confidence Scale" developed by Akın (2007) was used. The scale consists of two sub-dimensions, inner self-confidence and outer self-confidence. Inner self-confidence items in the scale are 4-25-32-17-10-30-12-3-19-5-21-27-9-23-1-7-15 and outer self-confidence items are 6-31-20-29-16-14-22-11-18-33-2-28-26-13-8-24. The scale is a 5-point Likert type. Akın (2007) found the reliability value of the scale he developed to be 0.94 for the whole scale. The reliability rate of the scale, as a result of our study, was found to be 0.90 in the pre-test, while the Cronbach's Alpha value in the post-test was 0.86.

Athletic Coping Skills Inventory: The scale is a self-assessment tool developed by Smith, Schutz, Smoll, and Ptacek (1995) to evaluate the psychological skills of athletes. This tool developed for athletes consists of 28 items, 7 sub-dimensions and 4 items for each sub-dimension. The scale, which consists of a total of 28 items, is in the form of a 4-point Likert type scale. Questions numbered 3.7.10.12.19 and 23 of the scale are negative and must be numbered in reverse. Scoring for the sub-dimensions ranges from 0 to 12, and an increase in the score from the scale indicates that the athlete's psychological skills are good. Seven sub-dimensions were created by Smith, Schutz, Smoll, and Ptacek R (1995) and interpreted by Smith R and Christensen D (1995). Definitions and item examples of these seven sub-dimensions are given below (148). As a result of our study, the reliability score of the scale was found to be 0.72 in the pre-test, while the Cronbach's Alpha value in the post-test was 0.80.

2.2. Data Analysis

SPSS 25 statistical package program was used in the analysis of the data obtained during the study. The normality test of the data was done with the Kolmogorov-Smirnov test. Wilcoxon test was used to compare the pre-test and post-test values. The level of statistical significance was taken as $p<0.05$.

3. Findings

Table 1: Descriptive Statistics.

Variables	Groups	N	%
Age	12	12	80,0
	13	3	20,0
	Total	15	100,0
The Education Level of Mother	Primary	8	53,3
	Secondary	6	40,0
	High-school	1	6,7
	Total	15	100,0
The Education Level of Father	Primary	6	40,0
	Secondary	7	46,7
	High-school	2	13,3
	Total	15	100,0
Monthly Family	3500TL-4500 TL	7	46,7

Income (TL)	4501TL-5500TL	5	33,3
	5501TL-6500 TL	3	20,0
	Total	15	100,0

While 80.0% of the participants are in the 12 age group, 20.0% are in the 13 age group. When we look at the education level of mother, it is seen that the majority of them have a primary school education level with a rate of 53.3%. When the education level of father is taken into consideration, it is seen that 40.0% are primary school graduates, 46.7% are secondary school graduates and the remaining 13.3% are high school graduates. In addition, it was determined that 46.7% have an income of 3500TL-4500TL, 33.3% have an income between 4501TL-5500TL and 20.0% have an income of 5501TL-6500TL.

Table 2: Wilcoxon Results of Pretest and Posttest Scores Regarding Self-Confidence Levels of Sedentary Men

	Variables		**N**	**M**	**SD**	**z**	**p**
Self-confidence Scale	Inner Self-confidence	Pre-test	15	64,87	9,463	-2,198	0,052
		Post-test	15	63,67	9,693		
	Outer Self-confidence	Pre-test	15	62,27	6,861	-1,338	0,181
		Post-test	15	63,87	4,984		

According to the table, no significant difference was observed in the inner self-confidence values in the sub-dimension of the self-confidence scale (p>0.05).

Table 3: Wilcoxon Results of Pre-test and Post-test Scores Regarding Athletic Coping Skills Levels of Sedentary Men

	Variables		**N**	**M**	**SD**	**z**	**p**
Athletic Coping Skills Inventory	Coping With Adversity	Pre-test	15	7,87	1,922	-1,232	0,218
		Post-test	15	7,53	1,807		
	Coachability	Pre-test	15	8,07	2,314	-1,104	0,270
		Post-test	15	6,73	2,251		
	Concentration	Pre-test	15	8,47	1,885	-1,933	0,053
		Post-test	15	8,00	1,964		
	Confidence and Achievement Motivation	Pre-test	15	8,87	2,031	-0,631	0,528
		Post-test	15	8,60	1,805		
	Goal Setting/Mental Preparation	Pre-test	15	7,20	2,077	-0,284	0,776
		Post-test	15	7,33	1,988		
	Peaking Under Pressure	Pre-test	15	7,00	2,104	-1,539	0,124
		Post-test	15	7,47	1,727		
	Freedom From Worry	Pre-test	15	6,33	2,526	-1,470	0,142
		Post-test	15	4,67	2,380		

According to the table, no significant difference was observed in the sub-dimensions of the Athletic Coping Skills Inventory (p>0.05).

Table 4: Wilcoxon Results of Pretest and Posttest Scores Regarding Levels of Attention of Sedentary Men

	Variables		**N**	**M**	**SD**	**z**	**p**
Test of Attention	Total Item	Pre-test	15	329,40	92,801	-1,140	0,254
		Post-test	15	324,27	95,660		
	Total Error Score	Pre-test	15	31,53	19,770	-1,311	0,190
		Post-test	15	25,93	12,027		

Concentration Score	Pre-test	15	99,67	25,765	-0,852	0,394
	Post-test	15	95,27	18,972		

According to the table, no significant difference was observed in the sub-dimensions of the test of attention scale (p>0.05).

4. Discussion and Conclusion

80.0% of the majority of sedentary men who participated in our research are in the 12 age group. In terms of education level of mother, it is seen that 53.3% of them are primary school graduates, 40.0% are secondary school graduates and 6.7% are high school graduates. In terms of education level of father, 40.0% of them were primary school graduates, 46.7% were secondary school graduates and 13.3% were high school graduates. When we look at the monthly family income, it is seen that 46.7% of them have income between 3500TL-4500 TL, 33.3% have income between 4501TL-5500TL and 20.0% have income between 5501TL-6500TL.

According to the post-test results of the sedentary men who participated in our study, no significant difference was observed in the sub-dimensions of self-confidence development.

According to the results of the study conducted to compare the self-confidence levels of high school athlete students and sedentary students, it was concluded that sedentary students had both lower inner and lower outer self-confidence levels compared to athlete students (Özbek et al., 2017). In the study conducted to determine the effect of sports activities on the self-confidence levels of individuals aged 13-14, it was found that the self-confidence levels of those who participate in sports activities are statistically higher than those who do not participate in sports activities (Yaylacı, 2019). According to the results of the study conducted by Zorba (2012), it is stated that doing sports regularly helps to increase positive results such as developing self-esteem and increasing self-confidence for individuals.

When the studies are analyzed, it has been determined in many studies that the self-confidence of the people who participate in sports increases with the effect of situations such as the increase in social relations and the development of personal skills; on the other hand, there is no change in sedentary people. When the relevant literature was reviewed, no study was found about the effect of life kinetic training on the level of self-confidence in sedentary individuals, and we think that this study will contribute to the literature.

According to the post-test results of the sedentary men who participated in our study, no significant difference was observed in the sub-dimensions of Athletic Coping Skills Inventory.

According to the results of the study, which was conducted to examine the basic psychological needs of students who do and do not do sports, based on various variables, it was concluded that the basic psychological needs of students who do sports are met more than students who do not do sports (Çırak, 2017). According to the results of the research conducted to compare the levels of resilience, self-esteem, optimism and locus of control of athletes and sedentary individuals, it was concluded that athletes have higher levels of resilience, self-esteem, locus of control and optimism than sedentary individuals (Özdemir, 2017). According to the results of the study conducted to determine the socialization levels of foreign national high school students who do and do not do sports, it was determined that foreign national high school students who do sports take more successful steps in communication with their friends, social relations, reflection of their perspective on sports and socialization compared to sedentary students (Yenişan, 2020). In Tunç's (2015) study on university students who do and do not do sports, the subjective well-being scores of women who do sports were found to be significantly higher than those who do not.

The sports environment provides many contributions in terms of making individuals feel good and teaching many skills that can improve their individual qualities. Also, it supports individuals by improving psychological skills such as motivation, anxiety, stress, assertiveness and self-confidence. When the studies were examined, it was seen that there were no studies on the effect of life kinetic training on psychological skill levels. That is, we

think that the results obtained will contribute to the relevant literature regarding being a study in the field of psychological skills.

According to the post-test results of the sedentary men who participated in our study, no significant difference was observed in the sub-dimensions of test of attention. According to the study conducted to compare the attention skills of table tennis players to sedentary individuals, it was determined that those who play table tennis are more successful in test of attention than sedentary ones, and playing table tennis positively affects the level of attention of individuals (Reyhan, 2019). In a study conducted by Adsız (2010) to determine the effect of sports on attention development in primary school 4th and 5th grade children, it was seen that those who do sports are 83% more careful than those who do not. In a study conducted by Özdemir (1990) to compare the attention levels of university students aged 17-23 who do and do not do sports, it was found out that students who are athletes are more attentive than those who are not. In a study conducted by Gür (2022) to examine the effect of life kinetic exercises on performance in darts athletes no statistically significant improvements were found between pretest and posttest values in all of the performance values of the control group.

When the studies were examined, there was a significant increase in the attention levels in the post-test results of the athletes who participated in table tennis, darts, game training and sports-related exercises, while there was no significant difference in the post-tests results of sedentary people. We think that the results of this study will contribute to the literature, since there are no studies on the effect of life kinetic training on the attention level of sedentary people.

When the literature is reviewed, it is seen that there are studies conducted to examine the effect of life kinetic training on cognitive abilities and to examine the effect on skill learning. Therefore, it is thought that our study has a unique value and will contribute to the literature, since it was conducted to examine the effect on self-confidence, psychological skill levels and attention levels in sedentary people. In future studies, it may be suggested to examine the effects of life kinetic training on different variables in people who actively do sports. In addition, longer studies such as 12-16 weeks can be done with adult age groups. It can be suggested to contribute to the literature by conducting more research on psychological skill training practices and life kinetic training practices.

References

Akdur, H., Sözen, A.B., Yiğit, Z., Bolata, N. & Güven, Ö. (2007). Theeffect of Walking and Step Aerobic Exercise on Physıcal Fitness Parameters In Obese Women. *İstanbul Üniversitesi İstanbul Tıp Fakültesi Dergisi. 70 (3),* 064-069.

Memiş, U.A., (2017). The Relationship Between Physical Activity Experiences in Childhood and Adolescence and Level of Physical Activity in Adulthood, Yayınlanmamış Doktora Tezi, Gazi Üniversitesi, Beden Eğitimi ve Spor Öğretmenliği Anabilim Dalı. Ankara.

Lutz, H. (2011). LK&wetenschappelijk onderzoek research en samenstelling 1-8, Germany.

Ateş B., Çetin E. ve Yarım İ., (2017). Balance Ability and Balance Training in Female Athletes. *Gaziantep Üniversitesi Spor Bilimleri Dergisi, 2(2),* 66-73.

Lutz, H. (2012). *Life kinetik gehirntraining durch bewegung*. München: BLV Buchverlag.

Neureuther, F. (2009). *Mein Training mit Life Kinetik: Gehirn Bewegung mehrLeistung. München,* Herbig Verlagsbuchhandlung GmbH, 112-153.

Akagündüz, N. (2006). *İnsan Yaşamında Özgüven Kavramı.* İstanbul: Ümraniye Rehberlik ve Araştırma Merkezi Müdürlüğü Yayınları. Sayı:1.

Kasatura, İ. (1998). Personality and Confidence. İstanbul: Evrim Yayınevi.

Lindenfield, G. (2011). Raising Confident Children. İstanbul: Yakamoz Yayınları.

Özmen, SK. (2006). Activities to develop attention skills – Pre-school. Ankara: Anı Yayıncılık.

Asan, R. (2011). The effect of eight weeks of table tennis exercise on attention in children aged 9-13. Selçuk Üniversitesi Sağlık Bilimleri Enstitüsü, Yüksek Lisans Tezi, Konya.

Soysal, AŞ, Yalçın K, Can H. (2008). Theories of attention in cognitive psychology. *New Symposium Journal; 46(1):* 35-41.

Tiryaki, Ş. (2000). Sports Psychology Concepts, Theories and Practice, Eylül Kitap ve Yayınevi, Ankara. ;s.75.

Yazgan, Y. (2002). Hyperactive Child at School, İstanbul, Evrim Yayınevi. ;s.12.

Robert, W. (2001). "Collegiate Coaches' Perceptions of Their Goal-Setting Practices: A Qualitative Investigation, *Journal of Applied Sport Psychology; 13,* 374-398.

Çağlar, E. Koruç Z. (2006). Reliability and Validity of the D2 Attention Test in Athletes. *J. Of Sport Sciences; 17 (2),* 58-80.

Yaycı, L. (2013). Validity and Reliability Study of the D2 Attention Test, *Kalem Eğitim ve İnsan Bilimleri Dergisi; 3(1),* 43-80.

Akın, A. (2007). Development of Self-Confidence Scale and its Psychometric Properties. *Abant İzzet Baysal Üniversitesi Eğitim Fakültesi Dergisi; 7(2),* 167-176.

Smith, R.E. Schutz R.W. Smoll F.L. Ptacek J.T. (1995). Development And Validation Of A Multidimensional Measure Of Sport-Specific Psychological Skills: The Athletic Coping Skills Inventory-28. *Journal of Sport&Exercise Psychology; 17*, 379-398.

Özbek, S. Yoncalık M T. Alıncak F. (2017). Comparison of Self-Confidence Levels of Athlete and Sedentary High School Students (Kırşehir Province Example). *Gaziantep Üniversitesi Spor Bilimleri Dergisi; 2(3),* 46-56.

Yaylacı, S T. (2019). The Effect of Sports Activities on Self-Confidence Levels of 13-14 Year Olds. Yüksek Lisans Tezi, Sağlık Bilimleri Enstitüsü, Hitit Üniversitesi.

Zorba, E. (2012). Lifetime Sport for All, Neyir Yayınları, Ankara.

Çırak, M F. (2017). Investigation of Meeting the Basic Psychological Needs of Students Who Play and Don't Do Sports. Yüksek Lisans Tezi, Sağlık Bilimleri Enstitüsü, Bartın Üniversitesi.

Özdemir, E. (2017). Comparison of Psychological Resilience, Self-Esteem, Optimism and Locus of Control Levels of Athletes and Sedentaries. Yüksek Lisans Tezi, Sağlık Bilimleri Enstitüsü, Muğla Sıtkı Koçman Üniversitesi.

Yenişan, C. (2020). Investigation of Social Skill Levels of Foreign Athletes and Sedentary Students Studying in High School. Yüksek Lisans Tezi, Sağlık Bilimleri Enstitüsü, Erciyes Üniversitesi.

Tunç, A Ç. (2015). The Effect of Sports on Social Anxiety and Subjective Well-Being Levels of University Students. Yayınlanmamış Yüksek Lisans Tezi, Sağlık Bilimleri Enstitüsü, Selçuk Üniversitesi.

Reyhan, Ş G. (2019). Comparison of Attention Skills of Table Tennis Athletes with Sedentaries. Yüksek Lisans Tezi, Sağlık Bilimleri Enstitüsü, Kahramanmaraş Sütçü İmam Üniversitesi.

Adsız, E. (2010). Investigation of the Effect of Regular Sports on Attention in Primary School Students. Yüksek Lisans Tezi, Sağlık Bilimleri Enstitüsü, Ege Üniversitesi.

Özdemir, M Y. (1990). Investigation of Attention Levels of University Athletes and Non-Athletes. Yüksek Lisans Tezi, Sağlık Bilimleri Enstitüsü, Marmara Üniversitesi.

Gür, Y., Hamdemirci, I. H., Taşkin, C., & Taşkin, S. (2022). Investigation of the Effect of Life Kinetic Exercise on Performance in Dart Athletes. *Pakistan Journal of Medical & Health Sciences*, *16*(06), 518-518.