



Education Quarterly Reviews

Gunel, I., & Hacicaferoglu, S. (2022). Investigation of the Effects of Teachers' Participation in Sportive Recreational Activities on Assertiveness and Hopelessness. *Education Quarterly Reviews*, 5(3), 78-86.

ISSN 2621-5799

DOI: 10.31014/aior.1993.05.03.526

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

Published by:
The Asian Institute of Research

The *Education Quarterly Reviews* is an Open Access publication. It may be read, copied, and distributed free of charge according to the conditions of the Creative Commons Attribution 4.0 International license.

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.



ASIAN INSTITUTE OF RESEARCH
Connecting Scholars Worldwide

Investigation of the Effects of Teachers' Participation in Sportive Recreational Activities on Assertiveness and Hopelessness

Ilker Gunel¹, Serkan Hacicaferoglu²

¹ Faculte of Sport Science Sport Management, Usak University, Turkey. Email: ilker.gunel@usak.edu.tr / Orcid: 0000-0001-7642-1707

² Department of Physical Education and Sports, Istanbul Technical University, Turkey. Email: hacicaferoglus@itu.edu.tr / Orcid: 0000-0001-8301-304X

Correspondence: Serkan Hacicaferoglu, Department of Physical Education and Sports, Istanbul Technical University, Maslak, 34467, Turkey. Tel: +90 (212) 285 34 08. E-mail: hacicaferoglus@itu.edu.tr

Abstract

This study was carried out to examine the effect of sportive recreational activities, in which female teachers teaching in different branches, participate on assertiveness and hopelessness. In order to determine the effects of assertiveness and hopelessness, the method of applying pre-test and post-test to the participants was followed in the study. Assertiveness and hopelessness levels of the participants were collected using the “Beck Hopelessness” and “Rathus Assertiveness” scales. Descriptive statistics and ANOVA test were used in the analysis of the data. As a result of the research, it was determined that there was a statistically significant difference between the first test and post-test mean scores of the hopelessness and assertiveness levels of the sedentary women in the experimental group who performed recreational activities, while there was no significant difference between the first-test and post-test mean scores in the control group. In addition, it was determined that sedentary female teachers who participated in regular recreational activities for twelve weeks had a significant decrease in hopelessness levels and an increase in assertiveness levels. In this context, it can be said that directing sedander female teachers to sportive recreational activities will be more efficient in coping with hopelessness and increasing the sense of assertiveness, and will contribute to the education processes.

Keywords: Hopelessness, Assertiveness, Recreational Activities, Sedentary Women Teachers

1. Introduction

Today, individuals who spend most of their lives working in front of the computer in the office may have some physical and psychological problems in the long term. From a physical point of view, in addition to diseases such as obesity, cholesterol and diabetes caused by a sedentary lifestyle (Jin et al., 2018), it can also bring mental problems such as psychological reluctance, low motivation and hopelessness (Tobin, Leavy & Jancey, 2016). Despair, which is defined as the lack of a positive perspective towards the future and feeling inadequate in the way of self-healing or getting better (Ryba, 2008), can lead to negative situations such as isolation from society, lack

of communication and shyness, which is the opposite of assertiveness, depending on the process. However, features such as greater autonomy, dominance in human relations, being at peace with oneself, commitment to a purpose in life, and a significant decrease in hopelessness levels can often be observed in individuals who do regular physical activity compared to those who do not (Edwards, Ngcobo, Edwards & Palavar, 2005; Hacicaferoglu & Ozturk, 2020; Hacicaferoglu, Gunel & Duyan, 2018; Kirkcaldy, Shephard & Siefen, 2002; Maltby & Day, 2001). In this respect, it can be said that physical activities are important in increasing the hope levels of individuals (Gunel & Hacicaferoglu, 2021; Scheier & Carver, 1985). It should not be forgotten that sports organizations, recreational activities and sports facilities are needed for the realization of physical activities (Hacicaferoglu, Gundogdu & Hacicaferoglu, 2012; Hacicaferoglu, Gundogdu, Hacicaferoglu & Yucel, 2014; Ozturk, 2016).

The concept of hopelessness is expressed as a measure of psychological well-being (Cashin, Potter, & Butler, 2008; Dunn et al., 2019). Despair can express feelings of a pessimistic view of the future. In this respect, individuals with a high level of hopelessness may have negative paradigms for both the moment they live and any future situation. It can generally be seen in individuals who do not have full control over their own lives or who believe that they do not have the resources available to improve their psychological state (Palmer & Connelly, 2005). The concept of assertiveness was first used in the literature with the studies conducted by Wolpe and Lazarus (1966). It is stated that the rights and feelings of individuals fall within the scope of assertiveness, which is accepted by the society. Assertiveness is also known as a multi-faceted concept in which both verbal and non-verbal behaviors related to certain situations are effective (Galassi & Galassi, 1978). The concept of assertiveness is one of the important factors in the psychological well-being of individuals, just like hopelessness. For this reason, individuals' being assertive in any matter and seeking their rights are related to thinking more positively for the present and for the future. In the literature, it has been determined that individual or collective participation in recreational activities contributes to the increase of assertiveness, extraversion and psychological well-being, and to the reduction of mood disorders such as depression and anxiety (Shaw, 2000; Zabriskie & McCormick, 2000).

The concept of sportive activities or recreational sportive activities has become increasingly popular today and constitutes an important part of the concept of recreation as a leisure time activity that has become widespread in society. In this direction, the time that has the potential to be evaluated without any pressure is evaluated within the scope of "leisure time" activities (Shivers & Delisle, 1997). Recreational sportive activity can generally be defined as any bodily movement which is produced by the contraction of skeletal muscles and puts the energy decrease in individuals over the basal level (Kenefick & Chevront, 2012). In some studies on participation in sports activities and exercise, it is emphasized that when individuals do physical activities regularly, there are significant benefits for them both psychologically and physically (Barnett, Smoll & Smith, 1992). Individuals participating in any sportive recreational activity can be more socially competent and improve in physical appearance, as well as having a more positive perspective on physical activity after completing the recreational activity exercise program (Waldron, 2009). In addition, some studies in the literature have reported that participating in sportive recreational programs reduces anxiety and tension in individuals, increases body image, and improves psychological well-being (Donger, Ozkartal & Sarigoz, 2016; Kim, June, & Rhayun, 2002; Mavrovouniotis, Argiriadou & Papaioannou, 2010).

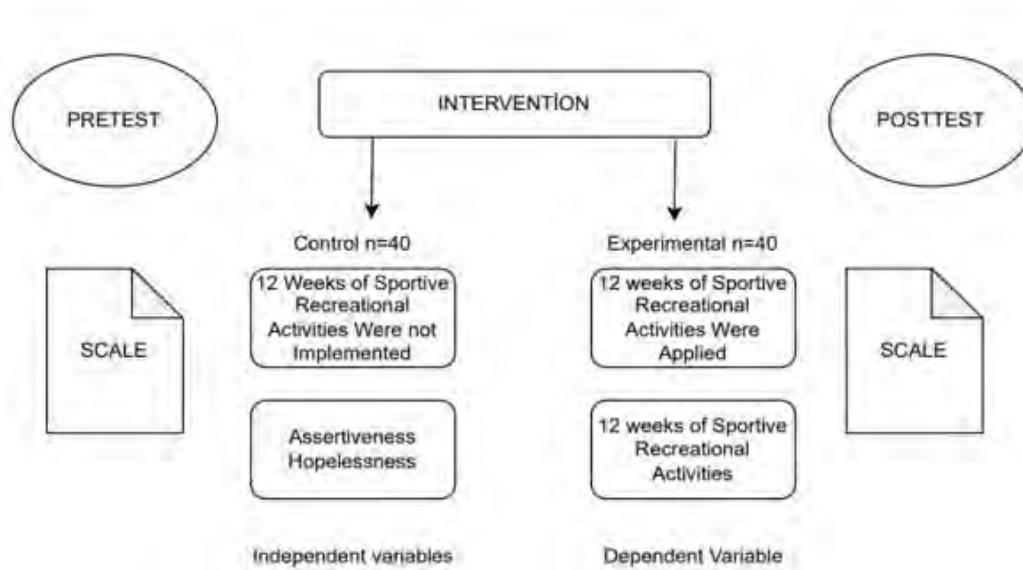
Individuals participating in recreataional sports activities can provide designated recreational activity opportunities for them to gain a certain physical, psychological and social value from their environment. In this context, recreational activities have important contributions to meeting the needs of individuals to realize themselves as a civilized person in their social lives (Hanani, 2017). There are many studies on assertiveness and hopelessness in the literature. However, it has been observed that there are very limited studies on female teachers who have professional experience in sports and recreational activities in different fields, addressing the levels of assertiveness and hopelessness at the same time. In this study, it was aimed to examine the effects of sportive recreational activities on the assertiveness and hopelessness levels of sedentary female teachers.

2. Material and Method

2.1. Model of the Research

The research was conducted according to the experimental research design, pre-test and post-test design, which is one of the quantitative research designs with a randomized control group (Hussen, 2010). The procedures of the study include the selection of the participants, the sportive recreational participation process, pre-test and post-test analysis. In line with these analyses, an answer will be sought to the question of whether the weekly sportive recreational activities of the participant sedentary women have a significant effect on assertiveness and hopelessness.

2.2. Pattern of the Research



2.3. Population and Sample

The population of the research consisted of female teachers, aged between 25 and 35, residing in the city center of Antalya and working in state educational institutions, with different professional branches. The sample of the study consists of 40 volunteer sedentary female teachers, who were selected from the universe by simple random sampling method and were women working in different educational institutions who had never participated in sportive-reactive activities.

Table 1: Descriptive findings regarding the participating individuals.

| Variables | Experimental group (N=40) | | Control Group (N=40) | |
|---------------------------------------|---------------------------|------|----------------------|------|
| | \bar{x} | Ss | \bar{x} | Ss |
| Ages of Participants | 28.35 | 3.06 | 28.18 | 2.43 |
| Participants' Height (cm) | 1.61 | 0.04 | 1.64 | 0.04 |
| Weight of Participants (kg) | 61.25 | 3.39 | 61.23 | 3.84 |
| Body mass index((kg/m ²) | 38.04 | 2.26 | 37.40 | 2.00 |

The sedentary office workers in the experimental group who participated in the study consisted of women with $n=40$, $M_{age} = 28.35 \pm 3.06$, and those in the control group had $n=40$, $M_{age} = 28.18 \pm 2.43$ values.

2.4. Research Process

Before starting the exercises, detailed information about the exercise program was given to the female teachers who participated in the sportive and recreational activities. In addition, it was informed that the records would be kept strictly confidential and an informed consent form was signed before the event. Attention was paid to ensure

that the demographic values of the sedentary women in the experimental and control groups were close to each other and that the participants did not know each other. In addition, a health report was requested from the women in the experimental group, stating that there was no harm in participating in fast-paced walking, and their participation in sportive recreational activities with sports content was ensured. The women in the experimental group participated in all of the recreational activities that took place regularly for a period of 12 weeks. The women in the control group did not participate in any recreational activities. They continued their daily routine lives. The women in the experimental group, who participated in regular recreational activities, were given 60-minute brisk walking exercises 3 days a week for 12 weeks. The tempo speed of the walks determined for the subjects participating in these exercises was fixed at 50-70%. They walked 3 km for 60 minutes in the first 3 weeks, 4 km for 60 minutes in the 4th, 5th, 6th weeks, 5 km for 60 minutes in the 7th, 8th, 9th weeks, and 6 km for 60 minutes in the 10th, 11th, 12th weeks. The women in the experimental group were given a 15-minute warm-up exercise and then a 10-minute cooling-off exercise before performing the walking exercise. Warm-up exercises included jumping rope, rotation jumps, front leg stretches, kneeling hip stretches. Cool-down exercises were performed with whole body muscle stretches. The intensity of the exercises applied to the subjects was determined as a result of the heartbeat count within 15 seconds from the carotid artery in the neck of the participants, immediately after the end of the recreational activity, according to the heartbeat reserve method (Karacan & Gunay, 2003). The control group was not included in any exercise program and was asked to continue their daily routine life. Responses to measurement tools are anonymous.

2.5. Data Collection Tools

The Rathus assertiveness inventory was developed by Rathus (1973). Turkish validity and reliability study of the scale was carried out by Voltan (1980). The scale, which consists of a total of 30 items, is used with 6 grades, ordered from -3 to +3. The total score to be obtained from the scale is calculated between -90 and +90. -90 denotes the shyness of individuals at the highest degree, and +90 denotes the highest degree of assertiveness. The value of $r=.92$ was obtained by using the reliability coefficient Pearson product-moment correlation formula, adopting the test-retest method. In addition, using the Spearman-Brown equation, the reliability coefficient obtained from the student's inventory results was found to be $r=.77$ (Voltan, 1980).

Beck Hopelessness Scale was developed by Beck, Rush, Shaw & Emery (1974) and adapted into Turkish by Seber, Dilbaz, Kaptanoglu & Tekin (1993). The scale is a scale that shows the extent to which individuals have positive and negative feelings about their own future. The scale is a 20-item true/false self-report measure. 11 items were coded for the answers given about the hopelessness measures of the individuals. 9 of these 11 items were coded for wrong answers about the concept of hopelessness. In general, the hopelessness score regarding the opinions on hopelessness was calculated between 0 and 20. In the current study, the Cronbach's alpha value was determined as ($\alpha=.86$). Beck Hopelessness Scale is an important scale in terms of validity and reliability. It is a 20-item scale consisting of true and false questions that evaluate the degree of pessimism of individuals or the pessimistic view of the person towards the future (Durak, 1994).

2.6. Statistical Analysis

In order to determine the assertiveness and hopelessness levels of working sedentary women, the data obtained from the scales used in the current study were coded with numerical expressions for data entry and data analysis. The data were analyzed through a statistical analysis program. Descriptive statistics were used to determine the mean and standard deviations of variables such as age, height, weight and body mass index (BMI) of the experimental and control groups participating in the study (Table 1). Two-way repeated measures analysis of variance (ANOVA) was used to compare the groups in terms of assertiveness and hopelessness levels, and the level of significance was determined as .05. $BMI = \text{Weight(kg)} / \text{Height(m)}^2$ formula analysis was used to determine the body mass index of the subjects.

3. Findings

In this part, the statistical values of the data obtained from the participants are included.

Table 2: Statistical descriptions for two-way repeated measurements in terms of assertiveness level of participants

| | | <u>Imperishableness</u> | | | | | | | |
|--------------------|----|-------------------------|------|-----------|-----------|-----|-------|-------|----------|
| | | Pre-test | | | Last-test | | | | |
| Working Groups | N | \bar{x} | ss | \bar{x} | ss | sd | F | p | η^2 |
| Experimental group | 40 | 25.68 | 4.76 | 28.50 | 4.48 | 3 | 3.802 | .012* | .089 |
| Control Group | 40 | 22.10 | 8.57 | 23.98 | 6.20 | 117 | | | |

*p<.05

When comparing the sedentary women in the experimental/control group (pretest/posttest) in terms of assertiveness levels, it was found that there was a statistically significant effect at the 95% confidence level, and the effect level was moderate ($F_{(3,117)}=3.802$; $p < 0.05$; $\eta^2=.089$). According to this result, it was seen that the assertiveness level of the participants in the experimental group increased with more points in the post-test than the first test measurements after the sportive recreational exercise program was completed. In addition, it was determined that the participants in the experimental group had higher assertiveness levels than the female participants in the control group. It can be said that 8.9% of the change in the assertiveness levels of sedentary women in the experimental group was due to the positive effect of sportive and recreational activities.

Table 3: Statistical Descriptions for Two-Way Repeated Measurements in terms of Hopelessness Level of Participants in Experimental and Control Groups

| | | Hopelessness | | | | | | | |
|--------------------|----|--------------|------|-----------|-----------|-----|-------|-------|----------|
| | | Pre-test | | | Last-test | | | | |
| Working Groups | N | \bar{x} | Ss | \bar{x} | Ss | Sd | F | p | η^2 |
| Experimental group | 40 | 21.04 | 5.19 | 17.35 | 4.48 | 3 | 4.150 | .008* | .096 |
| Control Group | 40 | 21.28 | 6.18 | 21.75 | 4.34 | 117 | | | |

*p<.05

When the participant (pre-test/post-test) sedentary women in the experiment/control group were compared in terms of their self-esteem levels, it was found that there was a statistically significant effect at 99% confidence level and the effect level was moderate ($F_{(3,117)}=4.150$; $p < .01$; $\eta^2=.096$). According to this result, it was determined that the hopelessness levels of the experimental group decreased statistically after the completion of the sportive recreational exercise program, according to the first test measurements. Compared to the participants in the control group, it was determined that the post-exercise hopelessness perceptions were statistically lower after the exercise. In this context, it can be said that 9.6% of the change in the hopelessness levels of the sedentary women in the experimental group is due to the positive effect of recreational activities.

4. Discussion

Based on the findings of this study, in which the effect of the exercise program including sportive recreational activities on the assertiveness and hopelessness of sedentary female teachers was investigated, it was determined that there were significant differences in the assertiveness and hopelessness levels of sedentary women participating in the sportive activity exercises within the scope of the Rathus Assertiveness Inventory after completing the 12-week exercise program that lasted for 12 weeks and gradually increased each week. In the current study, it was determined that while the assertiveness levels of the experimental group who completed the sportive and recreational activity program increased significantly, there was no statistically significant effect between the pre-test and post-test scores of the control group. It is thought that the increase in assertiveness levels

of sedentary women working in any occupational group with sportive recreational activities is an indicator of the increase in women's communication power and socialization skills. In addition, it can be said that with the increase in the assertiveness levels of the participants, their feelings of shyness decrease. Although some physical activities are of different intensities (low or moderate), they can be said to have a curative effect on depressed individuals (Teychenne, Ball & Salmon, 2008). In addition, it is stated that many sports activities contribute to positive developments in the communication and social integrity of individuals (Hacicaferoglu & Ozturk, 2020). It has been determined that scientific sports education is a very functional teaching model in order to develop assertiveness, which is directly related to human and individual responsibility (Gutierrez, Garcia-Lopez, Hastie & Calderon, 2013). Garcia-Lopez & Gutiérrez (2015), Nojedehi, Aghdasi & Shojaei (2015) and Rani (2019) stated in their research that the assertiveness levels of individuals involved in active sports were higher than those who did not do sports. In the studies of Elliot, Kennedy, Morgan, Anderson & Morris (2012) and Fox (1999), it was stated that regular participation in physical activities contributed to significant decreases in hopelessness, depression and suicidal tendencies in individuals who adopted a sedentary lifestyle. Despite this situation, in the research conducted by De La Torre, Manzano, López-Serrano & Ruiz-Ariza (2021), it is seen that the physical activities performed should be long-term, and that short-term sportive activities do not have an effect on assertiveness.

It was determined that the hopelessness levels of the female participants who participated in the sportive activity exercises within the scope of the Beck Hopelessness Scale and who were in the experimental group decreased significantly after completing the sportive recreational activity program. It was determined that there was no change in the hopelessness levels of the control group between the pre-test and post-test scores. The experimental group, which consisted of mostly sedentary women working in an office environment, experienced a significant decrease in the hopelessness of their daily life together with physical activities. In this context, it can be said that if individuals make doing sports and/or take part in sportive recreational activities, their pessimistic perspective will change. In addition, it is thought that their motivation will increase and this will reflect positively on their job performance. In this context, it can be said that sedentary women participate in activities as a team without competition during the exercise program implementation and their socialization has an effect on the decrease in hopelessness levels with sportive recreational activities. Nixdorf, Frank & Beckmann, (2016) determined in their study that individual athletes had higher depressive and hopelessness levels than team athletes. In addition, it is stated in the literature that there is a highly inverse relationship between physical activity and hopelessness levels, and that as physical activity level increases, individuals' hopelessness levels decrease significantly (Ali, Azam & Alam, 2020; Hembree, 2000; Taliaferro, Rienzo, Pigg, Miller & Dodd, 2009; Valtonen et al. , 2009). Another study showed that individuals who did more physical activity had a significantly lower hopelessness level than individuals who did less physical activity (Cashin, Potter & Butler, 2008; Caver, 2012; Page & Tucker, 1994). Voltanen et al., (2010) stated in their study that physical activity reduced the level of hopelessness even after it continued for a while and was interrupted.

4.1. Conclusion And Suggestions

Based on the findings of this study, in which the effect of the exercise program including sportive recreational activities on the assertiveness and hopelessness of sedentary female teachers was investigated, it was determined that there was a significant increase in the assertiveness levels of female teachers from different education branches who do not do any physical activity in their lives with regular sports and recreational activities (walking, warming-up and cool- down). It was observed that there was a significant decrease in hopelessness levels. In this direction, it can be said that thanks to the regular physical activity of female teachers who are experts in different education branches, their shyness decreases, and their communication and socialization, that is, their assertiveness levels, have a positive effect. In addition, it is seen that with the decrease in their hopelessness levels, their motivation will increase and it will help them to lead a more willing and energetic life. In this context, it is recommended that working women take part in sports and recreational activities at regular intervals in office environments. It is beneficial for employers to make arrangements within the scope of workplace recreation for their personnel without discriminating between men and women. It is recommended that they make the necessary arrangements regarding this.

References

- Ali, A., Azam, M. & Alam, M. (2020). Necessity of physical activity to reduce hopelessness: An analytical approach. *Research Journal of Physical Education & Sports Science*, 15.
- Barnett, N. P., Smoll, F. L. & Smith, R. E. (1992). Effects of enhancing coach-athlete relationships on youth sport attrition. *The Sport Psychologist*, 6, 111-127
- Beck, A. T., Rush, A. J., Shaw, B. F. & Emery, G. (1979). *Cognitive therapy of depression*. New York: Guilford.
- Beck, A., Weissman, A., Lester, D. & Trexler, L. (1974). The measurement of pessimism: The Hopelessness Scale. *Journal of Consulting and Clinical Psychology*, 42, 861-865.
- Cashin, A., Potter, E. & Butler, T. (2008). The relationship between exercise and hopelessness in prison. *Journal of Psychiatric and Mental Health Nursing*, 15(1), 66-71.
- Caver, C. (2012). A qualitative study of hopelessness and homelessness among African-American male ex-offenders (Doctoral dissertation, The University of the Rockies).
- Cashin, A., Potter, E. & Butler, T. (2008). The relationship between exercise and hopelessness in prison. *Journal of Psychiatric and Mental Health Nursing*, 15(1), 66-71.
- De la Torre, S., Manzano, S. S., López-Serrano, S. & Ruiz-Ariza, A. (2021). The effect of an 8-week program of high intensity cooperative physical activity on assertiveness, *Education, Sport, Health and Physical Activity (ESHPA): International Journal*, 5(1), 41-51.
- Donger, A., Ozkartal, Z. & Sarigoz, O. (2016). Investigation of professional self-efficiency beliefs of employees in educational institutions in terms of some variables. *International Refereed Academic Social Sciences Journal*, 7(24), 1-17.
- Dunn, S. L., Robbins, L. B., Smith, S. W., Ranganathan, R., DeVon, H. A., Collins, E. G. & Tintle, N. L. (2019). Enhancing physical activity in cardiac patients who report hopelessness: Feasibility testing of an intervention. *Health Education Journal*, 78(2), 226-237.
- Durak, A. (1994). Validity and reliability study of the Beck Hopelessness Scale. *Turkish Journal of Psychology*, 9(3), 1-11.
- Elliot, C. A., Kennedy, C., Morgan, G., Anderson, S. K. & Morris, D. (2012). Undergraduate physical activity and depressive symptoms: a national study. *American Journal of Health Behavior*, 36(2), 230-241.
- Edwards, S. D., Ngcobo, H. S., Edwards, D. J. & Palavar, K. (2005). Exploring the relationship between physical activity, psychological well-being and physical self-perception in different exercise groups. *South African Journal for Research in Sport, Physical Education and Recreation*, 27(1), 59-74.
- Fox, K. R. (1999). The influence of physical activity on mental well-being. *Public Health Nutrition*, 2(3a), 411-418. doi: 10.1017/s1368980099000567.
- Galassi, M. D. & Galassi, J. P. (1978). Assertion: A critical review. *Psychotherapy: Theory, Research, and Practice*, 46, 537-546.
- García-López, L. M. & Gutiérrez, D. (2015). The effects of a sport education season on empathy and assertiveness. *Physical Education and Sport Pedagogy*, 20(1), 1-16.
- Gunel, I. & Hacicaferoglu, B. (2021). The effect of school burnout on employment hope: An application on the students of the faculty of sports sciences, *International Journal of Eurasian Education and Culture*, 6(15), 2290-2320.
- Gutierrez, D., Garcia-Lopez, L. M., Hastie, P. A. & Calderon, A. (2013). Spanish students' perceptions of their participation in seasons of sport education. *The Global Journal of Health and Physical Education Pedagogy*, 2(2), 111-127.
- Hacicaferoglu, S., Gundogdu, C. & Hacicaferoglu, B. (2012). Evaluation of the thoughts of Physical Education and Sports School students about sports organizations and sports facilities (Inonu University example). *e-Journal of New World Sciences Academy*, 7(4), 59-67.
- Hacicaferoglu, S., Gundogdu, C., Hacicaferoglu, B. & Yucel, A.S. (2014). Determining and examining the participation of the Physical Education and Sports School students in leisure activities (Inonu University example). *Journal of Sports and Performance Research*, 5(1), 5-17.
- Hacicaferoglu, S. & Ozturk, H. (2020). Examination of the attitudes of prospective students who want to study in physical education and sports school towards playing games containing physical activity. *Journal of Social and Humanities Sciences Research*, 7(57), 2200-2206.
- Hacicaferoglu B., Gunel I. & Duyan M. (2018). Effects of organizational stress management on job performance: an application on sports organizations. *European Journal of Physical Education and Sport Science*, 4(10), 93-111.
- Hembree, L. D. (2000). *Exercise and its effect on hopelessness and depression in an aging female population in eastern Oklahoma*. University of Arkansas.
- Hanani, E. S. (2017). The study on value of recreational sports activity of urban communities. *Jurnal Kesehatan Masyarakat*, 12(2), 286-291.
- Hussen, S. S. (2010). Use of tai chi trainings to development some of the Physiological variables and psychological skills for Karate players. *Procedia-Social and Behavioral Sciences*, 5, 2063-2066.

- Jin, Y., Kim, D., Cho, J., Lee, I., Choi, K. & Kang, H. (2018). Association between obesity and carotid intima-media thickness in Korean office workers: The mediating effect of physical activity. *BioMed Research International*, (4285038), 1-10.
- Karacan, S. & Gunay, M. (2003). The effects of aerobic training program on cardiovascular risk factors of postmenopausal women, *Journal of Education Faculty of Gazi*, 23(3), 257-273.
- Kenefick, R. W. & Cheuvront, S. N. (2012). Hydration for recreational sport and physical activity. *Nutrition Reviews*, 70(2), 137-S142.
- Kim, C.G., June, K.J. & Rhayun, S. (2002). Effects of health promotion program on cardiovascular risk factors, health behaviours and life satisfaction in institutionalized elderly women. *Journal of Korea Gerontology Society*, 19(3), 51-64.
- Kirkcaldy, B. D., Shephard, R. J. & Siefen, R. G. (2002). The relationship between physical activity and self-image and problem behaviour among adolescents. *Social Psychiatry and Psychiatric Epidemiology*, 37(11), 544-550.
- Maltby, J. & Day, L. (2001). The relationship between exercise motives and psychological well-being. *The Journal of Psychology*, 135(6), 651-660.
- Mavrovouniotis, F., Argiriadou, E. & Papaioannou, C.S. (2010). Greek traditional dances and quality of old people's life, *Journal of Bodywork and Movement Therapies*, 14(3), 209-218.
- Nojedehi, A., Aghdasi, M. T. & Shojaei, M. (2015). The effect of the skill level, sports disciplines, and gender on karatekas' assertiveness (kata and kumite), *International Journal of Sport Studies*, 5(4), 470-474.
- Nixdorf, I., Frank, R. & Beckmann, J. (2016). Comparison of athletes' proneness to depressive symptoms in individual and team sports: Research on psychological mediators in junior elite athletes. *Frontiers in Psychology*, 7, 893.
- Nixdorf, I., Frank, R., Hautzinger, M. & Beckmann, J. (2013). Prevalence of depressive symptoms and correlating variables among german elite athletes. *Journal of Clinical Sport Psychology*, 7(4):313-326.
- Ozturk, H. (2016). Attitudes of students studying in coaching and sports management departments towards playing games containing physical activity. *Gaziantep University Journal of Social Sciences*, 15(2).
- Page, R. M. & Tucker, L. A. (1994). Psychosocial discomfort and exercise frequency: An epidemiological study of adolescents. *Adolescence*, 29, 193-191.
- Palmer, E. J. & Connelly, R. (2005). Depression, hopelessness and suicide ideation among vulnerable prisoners. *Criminal Behaviour and Mental Health*, 15(3), 164-170.
- Rathus, S. (1973). Rathus assertiveness scale. *Behavior Therapy*, 4, 398-406.
- Rani, A. (2019). Assertiveness and its association with self-efficacy among sports persons and non-sports persons, *International Journal of Physiology, Nutrition and Physical Education*, 4(1), 1699-1701
- Ryba, N. L. (2008). Cognitive-behavioral therapy for offender hopelessness: Lessons from treatment of forensic inpatients. *Journal of Contemporary Psychotherapy*, 38(2), 73-80.
- Voltan, N. (1980). The validity-reliability study of the Rathus Assertiveness Inventory. *Turkish Journal of Psychology*, 3(10), 23-25.
- Seber, G., Dilbaz, N., Kaptanoglu, C. & Tekin, D. (1993). The Hopelessness Scale: Validity and reliability. *Kriz Magazine*, 1, 139-142.
- Scheier, M. F. & Carver, C. S. (1985). Optimism, coping, and health: assessment and implications of generalized outcome expectancies. *Health psychology*, 4(3), 219.
- Shaw, S. (2000). *Ideals versus reality: Contradictory aspects of family leisure*. Abstracts from the 2000 Symposium on Leisure Research, 56. Ashburn, VA; National Park and Recreation Association.
- Shivers, J. S. & Delisle, L. J. (1997). *Story of LeisureContext, concepts, and current controversy*. Champaign, Illinois: Human Kinetics.
- Taliaferro, L. A., Rienzo, B. A., Pigg, R. M., Miller, M. D. & Dodd, V. J. (2009). Associations between physical activity and reduced rates of hopelessness, depression, and suicidal behavior among college students. *Journal of American College Health*, 57(4), 427-436.
- Teychenne, M., Ball, K & Salmon, J. (2008). Physical activity and likelihood of depression in adults: A review. *Preventive Medicine*, 46(5), 397-411.
- Valtonen, M., Laaksonen, D. E., Laukkanen, J., Tolmunen, T., Rauramaa, R., Viinamäki, H. & Niskanen, L. (2009). Leisure-time physical activity, cardiorespiratory fitness and feelings of hopelessness in men. *BMC Public Health*, 9(1), 1-7.
- Valtonen, M., Laaksonen, D. E., Laukkanen, J., Tolmunen, T., Rauramaa, R., Viinamäki, H. & Kauhanen, J. (2010). Sedentary lifestyle and emergence of hopelessness in middle-aged men. *European Journal of Preventive Cardiology*, 17(5), 524-529.
- Tremayne, T. (2011). *Therapeutic recreation activity guide: A guide instructing professionals and parents of individuals with disabilities on the use of visual supports in the implementation of social recreation activities*. Master's Thesis. Recreation and Leisure Studies. California; California State University.
- Tobin, R., Leavy, J. & Jancey, J. (2016). Uprising: An examination of sit-stand workstations, mental health and workability in sedentary office workers, in Western Australia. *Work*, 55(2), 359-371.

- Zabriskie, R. & McCormick, B. (2000). *An examination of family leisure contributions to family life satisfaction*. Abstracts from the 2000 Symposium on Leisure Research, 71. Ashburn, VA; National Park and Recreation Association.
- Wolpe, J. & Lazarus, A. A. (1966). *Behavior therapy techniques: A guide to the treatment of neuroses*. Pergamon Press, Elmsford, NY.
- Waldron, J. J. (2009). Development of life skills and involvement in the Girls on Track program. *Women in Sport and Physical Activity Journal*, 18, 60-74.