



RESEARCH ARTICLE

Investigation of the Effects of Game and Yoga Training on Social Integration and Subjective Wellness

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Abstract

The aim of this study is to examine the effect of games played before yoga on social integration and the effect of yoga training on subjective wellness. A total of 34 people with a mean age of 24,88±5,20 years, who had never practised yoga before, participated in the study. The participants were divided into two groups as game-supported yoga group (n:17) and yoga-only group (n:17). The first group consisted of those who played intra-group acquaintance and mingling games before each beginner-level yoga practice and then practiced yoga (Game+Yoga), while the second group regularly participated in beginner-level yoga practices. Both groups were asked to fill out the Social Integration Scale in Sport (Yılmaz 2006) and Subjective Wellness Scale (Uysal 2014) before and after 8 weeks. Descriptive statistics, Independent T-test, Paired Sample T-test and One Way Anova test were used in the analysis of the data through Spss 24 software. As a result of the findings obtained from the research, it was seen that there was no significant difference between the groups in terms of social integration and subjective wellness in terms of pre and post test values ($p>0.05$). However, when in-group comparisons were examined, it was determined that there were statistically significant differences between the pre-post test ($p<0.05$). According to the results of the study, it can be said that game-supported yoga training has no effect on social integration, but 8-week yoga training positively affects the level of social integration and subjective wellness.

Keywords

Game, Yoga, Wellness

INTRODUCTION

Although the exact starting date of yoga is not known, it is seen that yoga postures are depicted on stone carved seals dating back to 3000 BC (Gürsoy, 2019). Yoga is a comprehensive exercise programme that includes muscle development, mobility and endurance in adults (Grabara & Szopa, 2015). Urban life and hustle and bustle weaken people's ties with nature and more importantly with themselves. Individuals who need to re-understand and recognise themselves and participate in recreational activities

are confronted with yoga with its increasing popularity as well as many alternatives. Yoga, which is no longer an activity performed only in yoga centres, is finding increasing application areas in universities, hospitals, kindergartens and schools, workplaces and homes during the pandemic process through online or offline recordings. Yoga can be a useful form of exercise to improve balance and flexibility in healthy children in the school environment (Donahoe-fillmore, B. et al. 2019). Having school-age people practice yoga is beneficial not only for their mental state but also for increasing their physical activity

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levels (Forseth et al. 2022). Yoga, which is used as a supportive method in the treatment of all diseases, especially physical diseases, is now accepted as a serious discipline in developed countries such as European countries, America and Japan (Gürsoy, 2019). Yoga gives good results as a support for addiction and depression treatments with its stress-reducing effect, which has become a permanent part of today's life (Omelan et al. 2022).

According to Chang (2022), participation in sporting activities, in addition to the benefits it provides to individual health and happiness, helps nations and societies create and develop social capital and encourages the establishment of collective identities. Through these different dimensions, as a result of its proper implementation, it is expected to have an impact on both the personal fitness and social attitudes of individuals. However, the prejudice and stress that individuals who will come together for the first time and experience this may create due to various factors may delay their getting used to the group, getting used to a new practice and achieving these expected benefits.

Playing games can be considered as the most direct and easy way for people to leave their social anxieties and masks aside, regardless of their age. The most important person who cannot be mentioned without mentioning the game and its effects on human life is undoubtedly the Dutch history professor Johan Huizinga, who introduced the concept of "Homo Ludens". According to Huizinga, the game is a culture maker and is older than all acts, even culture (Gönül, 2019). Play does not emerge from various cultures, but is one of the most important features in the formation of cultures (Koçyiğit et al. 2007). Beyond providing learning, play also requires research, trial and error, relationship building, control and problem solving (Gülsoy, 2019). Social interaction is one of the most frequently cited benefits of sport organisations and can bring together people from different backgrounds who might not otherwise come together (Logan et al., 2019). Health benefits of physical activity and participation in sport organisations may also include better overall mental health in young adolescents (Vella & et al., 2017).

According to Yılmaz et al. (2006), "Sport fulfils the function of social integration from past history to the present". Before social integration, it is necessary to look at what is meant by the

concept of "integration" in terms of sociology, integration in sociology is the state of fusion between different elements of the social structure. The fact to be emphasised with the concept of social integration is that each society has its own material and immaterial cultural elements. This situation will naturally make it necessary to address the concept of integration in a society-specific manner and the need to develop measurement tools that will serve this purpose will arise. The concept of social integration, as stated in Yılmaz et al. (2006), corresponds to the complementarity of the cultural elements in the society in such a way that they come together and form a functioning whole. When the importance of the concept is recognized, it can be said that social integration is related to the individual's sense of belonging and thus quality of life. According to Charles-Rodriguez et al. (2023), physical activity, stress reduction, and well-being are related through social cohesion. From this point of view, considering the meditative aspects of yoga, which does not only consist of physical movements but also provides psychological gains that will contribute to integration such as belonging and rooting, it was thought that it would have an effect on social integration as well as subjective wellness in this study.

Vitality is associated with a sense of power and calm energy and is a subjective experience of having both physical and mental high energy (Popovych et al. 2021). Ryan & Frederick (1997) define subjective vitality as the energy that emerges from the essence of the individual rather than environmental conditions and the conscious experience that the person has energy and vitality. People who feel subjectively fit can cope with stress more easily and see themselves as mentally healthier (Ryan & Frederick, 1997). Analysing the studies in the literature, Uysal et al. (2014) concluded that subjective vitality, which means subjective well-being, is negatively associated with depressive symptoms, internet addiction, anxiety and emotional instability, sadness, external locus of control and physical pain, and positively associated with subjective happiness, social, psychological and emotional well-being and life satisfaction. When we look at the effect of yoga practices in studies on young people, it has an effect on anxiety, depression, stress, and positive mood. In addition, it has been observed that it has a positive effect on physical performance (He et al.

2018; Ju et al. 2019; LaSala et al. 2021). When the literature is examined, the effects of yoga on well-being have generally been examined and no other study has been found that examines the effects of yoga on wellness and social integration at the same time. In line with this information, the aim of the study is to examine the effect of games to be applied before yoga on social integration and the effect of yoga training on subjective wellness.

MATERIALS AND METHODS

In order to examine whether there is a difference in the social integration and subjective well-being of people receiving game-supported yoga and yoga-only practice, a quasi-experimental model with a pretest-posttest unequalized control group model design was used among quantitative methods. It was foreseen that 45 people over the age of 18, who had no previous experience of regular yoga practice and who were randomly selected on the basis of volunteerism would participate in the study. The participants were divided into two groups. The first group consisted of 22 people (8 males and 14 females) who played intra-group acquaintance and mingling games before each yoga practice and then practised yoga (Game+Yoga), while the second group consisted of 23 people (8 males and 15 females) who regularly participated in beginner-level yoga practices (Yoga) once a week for a total of eight weeks.

Inclusion criteria

- Participants must be over 18 years of age and healthy
- Experiencing yoga practice for the first time
- Voluntary participation

Exclusion criteria

- One male participant from the yoga-only group was excluded from the study due to orthopaedic problem because of the rule that if the participant has any health problem that prevents him/her from practising, he/she will be excluded from the study.
- A total of 10 participants, two of whom were male, who did not complete the measurements or yoga practices were also excluded from the study.

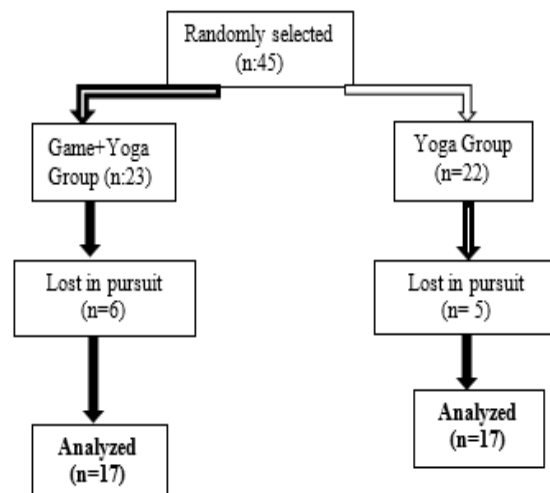


Figure 1. Participant Flowchart

The study was completed with a total of 34 participants (mean age $24,88 \pm 5,20$ years), including 17 participants (Game+Yoga group mean age $22 \pm 4,29$ years and yoga group mean age $26,88 \pm 5,37$ years) in both groups.

Ethics

The study was approved by the Scientific Research Ethics Committee of Alanya Alaaddin Keykubat University, Social Sciences and Humanities (Decision No: 2022/14, Decision date 07.12.2022)

Procedure

Before starting the study, the participants were informed about the study and a signed consent form was obtained according to the Declaration of Helsinki. Yoga training given by a certified yoga instructor was completed at the end of 8 weeks, 1 day a week in Alanya Youth Centre multi-purpose hall. Before the study and at the end of eight weeks, the participants were asked to fill out the scales.

Data Collection Tools

Subjective Wellness scale and Social Integration Scale in Sport were used in the study. The Turkish form of the Subjective Wellness scale developed by Ryan and Frederick (1997) was developed by Uysal (2014) by conducting validity and reliability tests, and the scale consists of 7 questions of 7-point Likert type. Cronbach Alpha internal consistency reliability coefficient of the scale was found to be .84 and test-retest correlation coefficient was found to be .79. The Social Integration Scale in Sport, which was developed by Hall (2004) and adapted into Turkish by Yılmaz (2006), consisted of 7 sub-dimensions and 32 5-point Likert-type scale questions. Cronbach's

Alpha internal consistency value of the scale was 0.91.

Game content

In the first group that performed game-supported yoga, 30-minute group games (Table 1) were played by the yoga instructor before yoga one day a week for 8 weeks. In the first weeks, introductory games were played, while in the following weeks, entertainment-oriented games that were integrative and mobilising were preferred. The games were further coloured by asking the players who got burned and lost in the games with fire and punishment to do the poses they drew from the children's yoga cards.

Table 1. Games Played

Weeks	Games	
1.	İsim-Bitki	Battaniye/ Paravan
2.	Soğan- Sarımsak	Patlıyor- Patlıyor-Patladı
3.	Müzikli Balonlar	Bana Öykünü Anlat
4.	Tuvalet Kâğıdı	A'yı Kovala, B'den Kaç
5.	Düğüm	Aaaa-Şiişşt
6.	Elektrikli Çit	Köpekbalığı-Küçük Balık
7.	Kulaktan Kulağa	Gözler Kapalı Dans
8.	Ev Sahibi ve Kiracı	Bana Beni Anlat



Picture 1. Image from Game (Game names are turkish language)

Yoga content

In the first weeks, yoga practices, which are based on correct breathing, correct posture and balance alignments, have started to turn into routine flows in the future. With 3-4 minutes of breath-oriented, guided meditation, it is aimed to enable the participant to come to the mat with his/her whole self from the rush of daily life, and each session starts in this way, starting with the opening mantra. Mantra means special Sanskrit sentences or sounds that colour yoga practices with their Sanskrit sound. This is followed by warm-up movements synchronised with the breath that warms the neck and joints. In particular, warm-up

exercises that warm and stretch the neck, shoulder blades, knees, backs of legs, wrists and ankles and warm-up exercises that mobilise the energy body are included. The warm-up exercises are followed by the Surya Namaskar (Salutation to the Sun) series. Afterwards, various asana practices are performed in accordance with the goal of the day, while various resting asanas and breathing breaks are added in between. Asana is the name of physical movements in yoga practice. Asanas are synchronised with the breath as much as possible. By experiencing yoga asanas, it can be seen that it has stress reduction benefits that reduce psychological distress despite increasing life stress conditions (Franklin et al. 2018). While applying the asanas, modifications or preliminary preparation asanas were made according to the development of the participants, and gradual progress was adopted. Towards the end, relaxation, relaxation exercises and deep resting Shavasana are taken towards Shavasana, and in the Shavasana part, there are also directions for breathing and relaxation, and Shavasana lasts at least 10 minutes. After Shavasana, the participants are awakened to return to daily life in a calm manner, the Infinite Sun song is sung, and a total of 60 minutes of practice is completed with the closing mantra and salute.



Picture 2. Image from Yoga

Analysis

Spss 24 statistical programme was used for the mean and frequency values, standard deviation, and comparisons of descriptive statistics of the participants. The kurtosis-skewness test was applied to test normality. Since the data showed normal distribution as a result of the analysis, Independent T test was performed in binary independent variables, Paired Sample T test in pre-post test comparisons, One Way Anova test in the comparison of multiple variables. The significance level was accepted as $p < 0.05$.

RESULTS

Table 2. Demographic data of the participants

Variable	Group	N	%
Activity type	Game±Yoga	17	50
	Yoga	17	50
	Total	34	100
Sex	Woman	21	61,8
	Man	13	38,2
	Total	34	100
Age	18-22 years	15	44,1
	23-27 years	10	29,4
	28 years and over	9	26,5
	Total	34	100
Educational level	Bachelor	24	70,6
	Master	1	2,9
	Ph. D	7	20,6
	Graduate	2	5,9
	Total	34	100

Table 2 shows that 61.8% of the participants were female, 52.9% were 23 years of age or older, 70.6% were undergraduate students and 50% were 17 people who received only yoga education.

Table 3. Comparison between groups

	PRE			POST		
	GROUP	MEAN±SD	p	GROUP	MEAN±SD	p
SOCIAL INTEGRATION TOTAL	Game+Yoga	129,17±14,12	0,948	Game+Yoga	135,94±15,5	0,493
	Yoga	129,58±21,47		Yoga	139,76±16,6	
Sub dimension Personal development	Game+Yoga	27,94±3,71	0,733	Game+Yoga	29,35±4,3	0,447
	Yoga	28,47±5,13		Yoga	30,47±4,15	
Sub dimension Socialising	Game+Yoga	29,35±2,97	0,511	Game+Yoga	30,58±3,31	0,668
	Yoga	28,29±5,81		Yoga	31,11±3,8	
Sub dimension Physical benefit	Game+Yoga	21,29±3,29	0,599	Game+Yoga	21,05±3,39	0,114
	Yoga	21,88±3,16		Yoga	22,88±3,14	
Sub dimension Integration	Game+Yoga	17,88±1,96	0,166	Game+Yoga	18,11±2,64	0,653
	Yoga	16,35±3,95		Yoga	18,47±1,8	
Sub dimension Psychological development	Game+Yoga	16,11±2,54	0,477	Game+Yoga	16,94±2,77	0,728
	Yoga	15,47±2,69		Yoga	16,58±3,08	
Sub dimension Moral development	Game+Yoga	9,23±3,78	0,167	Game+Yoga	11,29±3,15	0,461
	Yoga	10,82±2,67		Yoga	12±2,29	
Sub dimension Emotional development	Game+Yoga	7,35±1,99	0,129	Game+Yoga	8,58±1,66	0,495
	Yoga	8,29±1,49		Yoga	8,23±1,3	
Subjective Wellness	Game+Yoga	32,647±6,28	0,94	Game+Yoga	37,64±4,68	0,189
	Yoga	27,23±11,16		Yoga	34,47±8,47	

p<0,05

When Table 3 is analyzed, no difference was found between the two groups in the mean scores of social integration and subjective well-being (p>0.05).

Table 4. Within group comparison

	GAME±YOGA			YOGA		
	Variable	Mean±SD	p	Variable	Mean±SD	p
SOCIAL INTEGRATION TOTAL	Pre	129,17±14,12	0,018	Pre	129,58±21,47	0,002
	Post	135,94±15,5		Post	139,76±16,60	
Sub dimension Personal development	Pre	27,94±3,71	0,124	Pre	28,47±5,13	0,028
	Post	29,35±4,30		Post	30,47±4,15	
Sub dimension Socialising	Pre	29,35±2,97	0,101	Pre	28,29±5,81	0,001
	Post	30,58±3,31		Post	31,11±3,80	
Sub dimension Physical benefit	Pre	21,29±3,29	0,781	Pre	21,88±3,16	0,098
	Post	21,05±3,39		Post	22,88±3,14	
Sub dimension Integration	Pre	17,88±3,29	0,722	Pre	16,35±3,95	0,015
	Post	18,11±2,64		Post	18,47±1,80	
Sub dimension Psychological development	Pre	16,11±2,54	0,13	Pre	15,47±2,69	0,064
	Post	16,94±2,77		Post	16,58±3,08	
Sub dimension Moral development	Pre	9,23±3,78	0,006	Pre	10,82±2,67	0,024
	Post	11,29±3,15		Post	12±2,29	
Sub dimension Emotional development	Pre	7,35±1,99	0,006	Pre	8,29±1,49	0,791
	Post	8,58±1,66		Post	8,23±1,30	
Subjective Wellness	Pre	32,64±6,28	0,011	Pre	27,23±11,16	0,004
	Post	37,64±4,68		Post	34,47±8,47	

Table 4 shows that there was a significant difference in the total score of social integration and moral and emotional sub-dimensions of the game-supported yoga group between the pretest and posttest. In addition, a significant difference was also found in subjective well-being mean scores. It was also found that there were significant

differences in the total score of social integration, personal development, socialisation, integration and moral sub-dimensions of the yoga-only group between the first and last measurement. It was also found that there was a statistically significant difference between the first and last measurement of subjective wellness mean scores ($p < 0.05$).

DISCUSSION

The aim of the study is to examine the effect of games played before yoga on social integration and the effect of yoga training on subjective wellness. There was no statistically significant difference in the mean scores of social integration and subjective wellness in the first and last measurements between the group who played games before yoga training and the group who only did yoga ($p > 0.05$). This result may be due to the fact that yoga shows a holistic development of the individual. Macovei & Popescu (2022) examined the cognitive development of primary school children who played movement games and stated that movement games are an ideal educational tool both in terms of movement,

motor, and cognitive development and in terms of shaping personality and social integration. Özbek (2020) states that hunting, which is one of the oldest sports found in archaeological artefacts, and wrestling and similar physical games found in pharaonic tombs have positive contributions to social integration and society. It is certain that people will have gains in the direction of social integration by gathering in certain areas to watch the games, taking sides, laughing and having fun. The effects of the game are not limited to those who play. It also affects the people and the environment in which it takes place. Positive contributions to cognitive functions, social integration and quality of life have been described after the use of yoga in chronic conditions (Dietz et al. 2020). At the end of the research conducted on

adolescent students aged 13-15 years in order to evaluate the effects of Yoga Nidra on various dimensions of Well-being, the psychological general well-being of the participants increased (Vaishnav et al. 2018). In a study, Yoga was reported to improve the psychological well-being of retired people (Borotikar et al. 2023). In the study evaluating the effectiveness of Yoga Therapy on Psychological well-being and Quality of Life in anxiety disorders (mild to moderate categories), participants' Psychological well-being and Quality of Life levels increased (Annapoorna et al. 2011). In the study examining the effect of 12-week yoga training on the quality of life of individuals with schizophrenia, it was determined that there was a difference between the study and control groups as a result of the last measurement and that this difference was due to the improvement in the study group (Sertel et al. 2022). However, when we examined another study, no significant relationship was found between yoga exercises, well-being perceptions of individuals, and yoga training (Güler, 2010).

In our study, there was a significant difference in the total score of social integration and in the sub-dimensions of moral development and emotional development between the first and last tests of the game-supported yoga group ($p < 0.05$). In addition, a significant difference was found in subjective well-being mean scores ($p < 0.05$). On the other hand, it was found that there were significant differences in the total score of social integration, personal development, socialisation, integration and moral development sub-dimensions between the first and last measurement of the yoga group ($p < 0.05$). In addition, it was found that there was a statistically significant difference between the first and last measurement of subjective well-being mean scores ($p < 0.05$). As a result of in-group pre-post test comparisons, it was observed that the average scores of social integration and subjective wellness increased in both groups, that is, there was an improvement. It can be said that 8-week yoga training positively affects both social integration and subjective wellness of individuals. Sarnowska et al. (2018), in their project by establishing a homeless team for the Petanque Games in order to mobilise the homeless in Poland, is a good example to show those interested how movement classes can improve the quality of life in a shelter in an environment that allows social integration

and does not exclude the homeless. Offering yoga as group classes enables more meaningful relationships with the community, thus increasing social integration and well-being (Pearson et al. 2020). Asthanga yoga includes sadhana and practices that control and balance the chakras to achieve personal and social integration (Jordan, 2016). Yoga, which does not only mean spiritual or mental relaxation, also includes a large number of physical asanas. It can be said that there is a positive relationship between physical mobility and social integration. Hassmen (2000), in his study for Finland to determine the relationship between physical mobility and psychological well-being, found that those who exercise 2-3 times a week have a stronger sense of coherence and social integration than those who exercise less.

In a study conducted on young people, it was observed that yoga had a positive effect on well-being (Akhtar et al. 2013). A 10-day yoga-based short lifestyle change and stress management programme improved the subjective well-being of individuals (Sharma et al. 2008). It has been reported that the psychological well-being of inmates undergoing Yoga Prana Vidya System therapy increased (Nanduri & Revathi, 2020). The researchers stated that as a result of a total of 12 weeks of yoga training, one day a week for 90 minutes, there was a statistically significant difference between the psychological well-being pre-post test scores of female athletes in the experimental group and yoga had a positive effect on psychological well-being (Öner & Biçer, 2017). After the 8-week play training programme applied to university students, it was observed that there was a statistically significant difference in the subjective well-being levels of the study group in the pre-post follow-up test (Özdemir, 2019). As a result of the 12-week yoga exercise programme, which was determined as two days a week for 40 minutes, it was reported that it had a positive effect on the quality of life of women with premenstrual syndrome (Kılıç & Hakan, 2020). In another study, at the end of a study in which yoga exercises were performed three times a week for a total of 10 weeks, it was determined that the quality of life values of the participants improved in the post-test results (Demirezer & Biçer, 2023). However, Atılgan & et al. (2018) reported that yoga-based exercises did not have a significant effect on quality of life, physical activity and depression.

According to the results of the study, it can be said that game-supported yoga training does not have a significant effect on social integration, but 8-week yoga training positively affects social integration and subjective wellness. In new studies, the effect of increasing the duration or frequency of play before yoga training on social integration can be examined.

Conflict of Interests Statement

There are no conflicts of interest for the contributing author.

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Ethics Statement

The study was approved by the Scientific Research Ethics Committee of Alanya Alaaddin Keykubat University, Social Sciences and Humanities (Decision No: 2022/14, Decision date 07.12.2022)

Author Contributions:

Study Design, MÖ; Data Collection, EG; Statistical Analysis, MÖ; Data Interpretation, MÖ, EG; Manuscript Preparation, MÖ; Literature Search, MÖ, EG. All authors have read and agreed to the published version of the manuscript.

REFERENCES

- Akhtar, P., Yardi, S., & Akhtar, M. (2013). Effects of yoga on functional capacity and well being. *International journal of yoga*; 6(1), 76.
- Annapoorna, K., Latha, K., Bhat, S. M., & Bhandary, P. V. (2011). Effect of yoga therapy on psychological well-being and quality of life in anxiety disorder. *Int J Yoga Allied Sci*; 2, 97-103.
- Atilgan, E., & Erbahçeci, F. (2018). "Comparison of the effects of yoga and physiotherapy program on quality of life, balance, pain level, and sleep quality in individuals with chronic low back pain " *Journal Of Exercise Therapy And Rehabilitation*; 5(3): 158–66.
- Borotikar, S., Tillu, G., Lavalekar, A., & Nagarkar, A. (2023). Effect of yoga on psychological well-being in men. *GeroPsych*.
- Chang, C., Hsiung, T. T., Wang, F. J., Sum, R. K. W., & Cheng, C. F. (2022). "Application of the social impact of sport scale in chinese society." *Sports & Exercise Research*; 24(I): 19–31.
- Charles-Rodriguez, U., Venegas de la Torre, M. D., Hecker, V., Laing, R. A., & Larouche, R. (2023). The relationship between nature and immigrants' integration, wellbeing and physical activity: a scoping review. *Journal of immigrant and minority health*, 25(1), 190-218.
- Demirezer, A., & Biçer, M. (2023). The effect of yoga exercises on body composition and quality of life in sedentary women. *Gaziantep University Journal of Sport Science*; 8(1), 57-69.
- Dietz, A., Duncan ES., Bislick L., & Stegman S. (2020) "Yoga as therapy for people with aphasia". *Perspectives of the ASHA*.
- Donahoe-fillmore, B., & Grant, E. (2019). "The effects of yoga practice on balance, strength, coordination and flexibility in healthy children aged 10-12 years." *Journal of Bodywork & Movement Therapies*; 23(4): 708–12.
- Duman, F. K. (2020). The effect of sport on social integration. *Journal of Sport Education*; 4(3), 169-177.
- Forseth, B., Polfuss, M., Brondino, M., et al. (2022). "Adherence to and changes in mental and physiological health during an 8-week yoga intervention: A pilot study." *Journal of Bodywork & Movement Therapies*; 30: 203–9.
- Franklin, R. A., Butler, M. P., & Bentley, J. A. (2018). "The physical postures of yoga practices may protect against depressive symptoms, even as life stressors increase: A moderation analysis." *Psychology, Health & Medicine*; 23(7): 870–79.
- Güler, M. M. (2010). The effect of yoga exercises on the wellness and quality of life of the employees. Master Thesis. Marmara University. Health Science Institute.
- Gürsoy, S. Ş. (2019). Rising trend "yoga" in terms of consumer society and ontological security erosion, Doctoral Thesis. Hacettepe University. Institute of Social Sciences.
- Grabara, M., & Szopa, J. (2015). Effects of hatha yoga exercises on spine flexibility in women over 50 years old. *J. Phys. Ther. Sci*; 27:361-365.

- Hassmen, P. K. (2000). Physical exercise and psychological well-being: A population study in Finland, *Preventive Medicine*; 17-25.
- He, Z., Qi, X., Tong, J., Chen, S., & He, S. (2018). The Acute Effect of a Single Yoga Lesson on Mood and Stress among College Students: 279 Board #120 May 30 9 30 AM -11 00 AM. *Medicine & Science in Sports & Exercise*.
- Jordan, S. (2016). Biopsychology and yoga sadhana: Education for self knowledge and social welfare. In *International Educational Futures Conference* (p. 28).
- Ju, L., Zhu, W., Yan, H., & Wang, Z. (2019). Effectiveness of Short-Term Yoga Interventions for Stress of College Students: A Meta-Analysis. *Medicine and Science in Sports and Exercise*, 51(6), 112-113.
- Kılıç, N., & Hakan Ü. (2020). "12 Week yoga exercise on anxiety levels and quality of life in woman with pms (premenstrual syndrome) problem" *Spormetre The Journal of Physical Education and Sport Sciences*; 18(2): 126–35.
- Lasala, T. T., Trayer Run-kowzun., & Michael Figueroa. (2021). "The effect of a hatha yoga practice on hamstring flexibility." *Journal of Bodywork & Movement Therapies*; 28:439–49.
- Logan, K., Cuff, S., LaBella, C. R., et al. (2019). Organized sports for children, preadolescents, and adolescents. *Pediatrics*; 143(6).
- Macovei, R. A & Popescu, V. (2022). "Cognitive development through movement games in elementary school pupils". *Studia Ubb Educatio Artis Gymn.*, LXVII, 4, 2022, Pp. 113-123.
- Nanduri, V. S., & Revathi, R. (2020). Effects of yoga prana vidya intervention on psychological wellbeing and criminal attitude of under-trial prisoners. *Ind J Psychiatric Social Work*; 11(2), 1-9.
- Omelan, Aneta., Justyna, Wiśniewska., & Robert Podstawski. (2022). "Body composition and psychophysical well-being of women practicing yoga." *Baltic Journal of Health and Physical Activity*, 14(3): 1–9.
- Öner, Ç., & Biçer, T. (2017). The effect of yoga on the psychological well-being level of women athletes. *Euroasian Research in Sport Science*, 2 (1), 48-59.
- Özbek, F. (2020). Sports, games and entertainment in islam. Master Thesis. Aksaray University. Institute of Social Sciences.
- Özdemir, İ. (2019). The effect of movement education on self-efficacy beliefs and subjective well-being levels of university students. Doctoral Thesis. Burdur Mehmet Akif Ersoy University. Institute of Education Science.
- Pearson, N., Prosko, S., Sullivan, M., & Taylor, M. J. (2020). White paper: Yoga therapy and pain—how yoga therapy serves in comprehensive integrative pain management, and how it can do more. *International Journal of Yoga Therapy*, 30(1), 117-133.
- Popovych, I. S., Kuzikova, S. V. I. T. L. A. N. A., Shcherbak, T., Blynova, O. Y., Lappo, V., & Bilous, R. (2021). "Original article empirical research of vitality of representatives of parachuting and yoga practice: A comparative analysis." *Journal of Physical Education and Sport*; 21(1): 218–26.
- Ramazanoğlu, F., Karahüseyinoğlu, M. F., Demirel, E. T., Ramazanoğlu, M. O., & Altungül, O., (2005). Evaluation of social dimensions of sport. *Firat Üniversitesi Doğu Araştırmaları Dergisi*, 3(3), 153-157.
- Ryan, R. M., & Christina, F. (1997). "On energy, personality, and health: subjective vitality as a dynamic reflection of well-being." *Journal of Personality*; 65(3): 529–65.
- Sarnowska, M., Gach, S., Tereba, A., & Czarnecki, M. (2018). Activation of homeless people through Petanque Game. *Journal of Education, Health and Sport*; 8(8), 674-683.
- Sertel, M., Sabiha B., Fatih K., & Emine H. K. Ş. (2022). "Effects of yoga on quality of life, fatigue, and dynamic balance in individuals with schizophrenia: A single blind randomized controlled trial." *Journal Of Exercise Therapy And Rehabilitation* 9(1): 12–19.
- Sharma, R. A. T. N. A., Gupta, N., & Bijlani, R. L. (2008). Effect of yoga based lifestyle intervention on subjective well-being. *Indian J Physiol Pharmacol*; 52(2), 123-31.
- Thurston, Miranda., & Daniel, B. (2020). "A quest for relaxation? a figurational analysis of the

- transformation of yoga into a global leisure time phenomenon.” *Sport in Society*; 23(10): 1615–29.
- Uysal, Recep. (2014). “The psychometric properties of turkish version of subjective vitality scale. *Muğla Sıtkı Koçman University Journal of Social Sciences and Humanities Researches*; (33): 136–46.
- Vaishnav, B. S., Vaishnav, S. B., Vaishnav, V. S., & Varma, J. R. (2018). Effect of yoga-nidra on adolescents well-being: A mixed method study. *International journal of yoga*; 11(3), 245.
- Vella, S. A., Swann, C., Allen, M. S., Schweickle, M. J., & Magee, C. A. (2017). Bidirectional associations between sport involvement and mental health in adolescence. *Medicine and science in sports and exercise*; 49(4), 687-694.
- Yılmaz, B., Karlı, Ü., & Yetim, A. A. (2006). “Reliability and validity study of social integration in sports.” *Gazi Journal of Physical Education and Sport Sciences*; 11: 3–10.



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