

ORIGINAL ARTICLE

Examination of the Postgraduate Theses Published on Amputee Football Players in the Field of Sports Sciences in Turkey

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ABSTRACT

Aim: The aim of this research is to examine thesis published on amputee football players in the field of sports sciences in Turkey in terms of the level postgraduate, year of publication, purpose, age of participant, number of participant, data collection tools and results.

Methods: In the literature, review studies are generally carried out with three different methods: systematic review, traditional review and meta-analysis. This research was designed using the systematic review method. A total of 17 theses were reached as a result of the search made by scanning the keywords "amputee and football amputee" between 20.01.2022 and 05.02.2022 on the database of the Turkish National Thesis Center.

Results: Although there are very few postgraduate theses published in the field of physical education and sports sciences, it has been determined that there has been a great increase in recent years. At the same time, it was determined that the theses published were mostly master's theses. While the age range of the participant groups of these theses was not specified in some theses, it was determined that they were between the ages of 15-50 in other theses. The number of participant groups of these varies considerably between theses. When examined in terms of data collection tool, it was determined that physical performance values were measured the most. Secondly, it was determined that the most measurement tool was questionnaire. It was determined that the least number of semi-structured interview forms were used.

Conclusion: As a result, it has been determined that the number of postgraduate thesis researches on amputee football players in the field of physical education and sports is quite low and sports performance measurement tests are mostly applied in the existing theses. In future studies, it may be recommended to conduct studies examining psychological and social situations.

Keywords: Amputee football players, Amputee, Physically disabled individuals

INTRODUCTION

In recent years, it has been observed that physically disabled individuals take part as active athletes in almost all team and individual sports branches¹. Improving the sports performance of physically disabled athletes can increase the interest of disabled individuals and their parents in sports and can be effective in ensuring more disabled individuals participate in sports². One of the sports branches in which physically disabled individuals participate is amputee football³. The popularity of Amputee football, which is an increasingly widespread sport in Turkey, is increasing day by day⁴.

Amputee football is a team sport involving athletes who have unilateral lower limb amputation (defense, midfield and offensive players) or unilateral upper limb amputation (goalkeeper) or les autres (group with congenital hand, foot and upper limb anomalies)^{5,6}. Features such as high endurance, strength, flexibility, speed, quickness, skill and strategy are very important in this game⁷. Therefore, various training practices and performance measurement tests are applied in order to improve and monitor athlete performance. When we look at the studies on amputee football in the literature, it is seen that the studies mostly focus on performance evaluation^{6,8-14}. Amputee football has also been the subject of research by many researchers in Turkey and various studies have been carried out at the graduate thesis level.

Aim of the study: The aim of this research is to examine thesis published on amputee football players in the field of sports sciences in Turkey in terms of the level

Postgraduate: year of publication, purpose, age of participant, number of participant, data collection tools and results.

MATERIAL AND METHODS

Research model: In the literature, review studies are generally carried out with three different methods: systematic review, traditional review and meta-analysis^{15,16,22}. This research was designed using the systematic review method. The systematic review consists of synthesizing the findings obtained from the studies included in the research by examining all the studies published in the relevant field within the framework of various inclusion and exclusion criteria in order to answer a question or find a solution to a problem^{17,18,19,20,21}.

Inclusion criteria for the study; Being a postgraduate thesis published in the field of sports sciences, being an amputee football player of the research participant group. Exclusion criteria from the study; Not having a postgraduate thesis published in the field of sports sciences, not being an amputee football player in the research participant group.

Scanning Strategy and data collection: A total of 17 theses were reached as a result of the search made by scanning the keywords "amputee and football amputee" between 20.01.2022 and 05.02.2022 on the database of the Turkish National Thesis Center. As a result of the first evaluation made within the framework of the inclusion criteria of the study, it was determined that the participant groups in 6 theses did not consist of individuals who were

amputee football players, and these theses were not included in the research by being grouped as those that were not suitable for the purpose of the research within the scope of exclusion criteria from the research. Within the scope of the inclusion criteria of the study, it was determined that there were 11 postgraduate theses and

these theses were grouped as the theses suitable for the purpose of the research and included in the research.

RESULTS

The findings of the research are given in table below.

Table 1: Findings related to level postgraduate (GR), year of publication (PY), aim (AM), age of participant (AG), number of participant (NP), data collection tools (DC) and results (RS)

Number of thesis	Contents	Results
1	GR	Master Degree
	PY	2019
	AM	Determining the factors affecting the psychological resilience levels of amputated football players
	AG	18-42 age range
	NP	16 amputated football players
	DC	Semi-structured interview form
	RS	It has been determined that some individual and environmental protective factors are important in coping with some risk factors and are effective in being psychologically resilient individuals
2	GR	Master Degree
	PY	2018
	AM	It was investigated whether the leg strength and hand grip strength of amputee football players have an effect on sportive performance and, accordingly, on league ranking.
	AG	Mean age 32.17
	NP	48 amputated football players
	DC	Leg strength dynamometer and hand grip strength measurement dynamometer
	RS	Within the scope of the research, it was determined that the teams with higher average values in terms of leg strength, right and left hand grip strength had better sportive performances and ranked higher in the league ranking.
3	GR	Master Degree
	PY	2014
	AM	To investigate the effects of 6-week preparation period training on some physical and physiological parameters of amputee football players.
	AG	19-50 age range
	NP	33
	DC	Back strength, leg strength, hand grip strength, flexibility, vertical jump, body fat percentage, 30 m sprint test and 1 mile running tests
	RS	It has been determined that the 6-week preparation period training program has positive effects on physical and physiological parameters.
4	GR	Master Degree
	PY	2013
	AM	To determine the activation patterns of the upper extremity elbow flexor and extensor muscles and shoulder flexor and extensor muscles in amputee football players by surface electromyography and to compare the activation levels in different movement patterns.
	AG	Means age 25.5
	NP	10 amputated football players
	DC	Surface electromyography
	RS	It has been observed that the left arm elbow extensors have the highest muscle activation levels in walking, running, and shooting with the cane. It has been observed that the shoulder extensor has the highest muscle activation during cane walking, running, left arm and shooting.
5	GR	Doctorate
	PY	2021
	AM	Investigation of the relationship between isokinetic knee flexion/extension strength and bone mineral density values of amputated and non-amputee football players and comparison of the measured parameters of amputated and non-amputee football players.
	AG	Unspecified
	NP	14 amputated football players, 14 non-amputee football players
	DC	Anthropometric measurements, isokinetic knee extension and flexion strength measurements, bone mineral density measurements
	RS	It has been reported that non-amputee football players have higher muscle strength and bone mineral density values than amputated football players.
6	GR	Doctorate
	PY	2021
	AM	The effect of eight-week core training on the physiological and technical parameters of amputee football players was investigated.
	AG	Unspecified
	NP	11 amputated football players
	DC	Anthropometric measurements, Flexibility Test (Sit-Reach Test), Standing Single Leg Long Jump Test, Vertical Jump Test, Flamingo Balance Test, Static Balance: Stork Test, 30 sec Shuttle Test, Bent-Arm Hanging Test, T agility Test, Illinois Agility Test , 30 sec Push-up Test, Abdominal Muscles Strength, Lateral Flexors' Strength (Right-Left), Extensors' Strength, Plank Test, Reverse Plank Test, 20 m Dribbling Test, Bounce Test, Purple - Christian General Football Ability Test, Rockport Walking Test , Blood Parameters Measurements (Complete Blood Count (CBC), Cardiac NT-proBNP, Cardiac Troponin, Creatine Kinase (CK), Creatine Kinase Myocardial Band (CK-MB), Triglyceride, Low Density Lipoprotein (LDL), High Density Lipoprotein (HDL) , Lactate Dehydrogenase (LDH))
	RS	Core training in amputee football players has a positive effect on biochemical and technical parameters without causing cardiac problems.
7	GR	Master Degree
	PY	2021
	AM	Seasonal analysis of physical performance parameters of amputee football players according to their positions
	AG	Unspecified

	NP	16 amputated football players
	DC	Anthropometric measurements, Right hand grip strength, left hand grip strength, back strength, leg strength, arm strength, right hand visual reaction, left hand visual reaction, 10m speed, 20m speed, 30m speed, flexibility, resting heart rate and maximal heart rate
	RS	It has been reported that the seasonal trainings of amputee football players have different positive contributions to the physical performance parameters according to the positions
8	GR	Doctorate
	PY	2021
	AM	Physiological changes and movement profiles in amputee football match were investigated
	AG	Unspecified
	NP	9 amputated football players
	DC	maximal heart rate (HR max), modified shuttle running test, blood lactate concentrations (LA), movement profiles analysis
	RS	In the physiological responses to the amputee football match, it was determined that the physiological responses other than CAHort did not differ according to the circuits. When the movement profiles were examined, it was determined that the Hizmax was similar according to the circuits during the amputee football match, but the total distance traveled, the percentage distribution of different running speed and the time spent at different HRmax% differed
9	GR	Master Degree
	PY	2021
	AM	To examine the relationship between the quality of life, leisure time and disability levels of amputee football players
	AG	Unspecified
	NP	106 amputated football players
	DC	personal information form, quality of life scale and leisure barriers scale
	RS	When there is an improvement in the leisure time barriers of the athletes, there is an increase in the overall quality of life
10	GR	Master Degree
	PY	2019
	AM	Investigation of personality traits and decision-making styles of sedentary physically disabled individuals, amputee football players and wheelchair basketball players according to some factors
	AG	15-46 age range
	NP	30 sedentary physically disabled individuals, 40 amputee football players and 40 wheelchair basketball players
	DC	Melbourne Decision Making and the Five-Factor Personality Scale
	RS	Amputee football players, wheelchair basketball players and sedentary physically disabled individuals did not differ significantly in terms of personality traits and decision-making styles, according to various demographic variables, sports status and league level of the relevant sports branch.
11	GR	Master Degree
	PY	2019
	AM	To determine whether there is a relationship between the upper extremity physical fitness of wheelchair basketball players and amputee football players.
	AG	Mean age 27.97
	NP	23 amputee football players and 27 wheelchair basketball players
	DC	Body composition, flexibility, Left hand grip strength and reaction time measurements
	RS	It has been seen that amputee football players have better grades in terms of body mass index, left-right shoulder flexibility and right hand reaction time values. While the left hand was equal, it was observed that wheelchair basketball players had better values in both hands in terms of grip strength.

CONCLUSION

It can be said that the number of postgraduate thesis studies on amputee football players in the field of physical education and sports is quite low, but there has been an increase in recent years. When the published theses are examined by years, it has been determined that the most theses with 5 theses were published in 2021. Following this, it was determined that 3 theses were published in 2019, and one thesis was published in 2014, 2013 and 2012. It was determined that 8 theses were published as master's theses and 3 theses were published as doctoral theses. When examined according to the age range, the minimum age was 15 and the maximum age was 50. When evaluated in terms of the number of participants, it was determined that the minimum number of participants was 9 and the maximum was 110. When examined in terms of data collection tool, it was determined that physical performance values were measured the most. Secondly, it was determined that the most measurement tool was questionnaire. It was determined that the least number of semi-structured interview forms were used.

As a result, it has been determined that the number of postgraduate thesis researches on amputee football players in the field of physical education and sports is quite low and sports performance measurement tests are mostly applied in the existing theses. In future studies, it may be

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REFERENCES

1. Kaya M. 13-15 Comparison of static and dynamic balance activities of the visually impaired in the age group doing sports. Master Thesis, Institute of Health Sciences, Department of Physical Education and Sports, Gazi University, Ankara: 2003.
2. Ilkim M, Ilbak, I. Content analysis of the thesis for the physically disabled individuals between 2010-2019 years in the field of sport science in Turkey. Sivas Cumhuriyet University Journal of Sport Sciences, 2020; 1(1): 29-43.
3. Yazıcıoğlu K., Tahmisoğlu M. Amputee sports for victims of terrorism. NATO science for peace and security series. Human and Societal Dynamics, 2007; 31: 94-100.
4. Ozkan A. Safaz I, Safaz I, Yasar E, Yazıcıoğlu K. Determination of performance-related physical fitness characteristics of amputee football players. International Journal of Sport Culture and Science, 2014; 1(3), 66-77.
5. Simim MA., da Mota GR, Marocolo M, da Silva BV, de Mello MT, Bradley PS. The demands of amputee soccer impair muscular endurance and power indices but not match physical performance. Adapted Physical Activity Quarterly, 2018; 35(1): 76-92.
6. Simim MA, Bradley PS, da Silva BV, Mendes EL, de Mello MT, Marocolo M, da Mota GRI. The quantification of game-induced muscle fatigue in amputee soccer players. J Sport Med Phys Fit. 2017;57(6):766-72.

7. Lowter J, Lane A, Lane H. Self-efficacy and psychological skills during the amputee soccer world cup. *Athletic insight. The Journal of Sports Psychology*, 2002; 4(2): 23-34.
8. Mikami Y, Fukuhara K, Kawae T, Sakamitsu T, Kamijo Y, Tajima H, Adachi N. Exercise loading for cardiopulmonary assessment and evaluation of endurance in amputee football players. *Journal of Physical Therapy Science*, 2018; 30(8): 960-965.
9. Aytar A, Pekiavas NO, Ergun N, Karatas M. Is there a relationship between core stability, balance and strength in amputee soccer players? A pilot study. *Prosthet Orthot Int*, 2012; 36(3): 332-338.
10. Tatar Y, Gercek N, Ramazanoglu N, Gulmez I, Uzun S, Sanli G, Cotuk HB. Load distribution on the foot and lofstrand crutches of amputee football players. *Gait Posture*, 2018; 64: 169-73.
11. Guchan Z, Bayramlar K, Ergun N. Determination of the effects of playing soccer on physical fitness in individuals with transtibial amputation. *J Sport Med Phys Fit*, 2017; 57(6): 879-886.
12. Gunaydin G. The relationship between upper extremity strength and performance in elite amputee football players. *Baltic Journal of Health and Physical Activity*, 2020; 12(2): 64-72.
13. Maehana H, Miyamoto A, Kiuchi M, Koshiyama K, Yoshimura M. The Comparison of Attacking Aspects between the International Level and Domestic Level in Amputee Soccer Tournament. *International Journal of Sport and Health Science*, 2018; 16: 1-9.
14. Miyamoto A, Maehana H, Yanagiya T. The relationship between sprint speed and sprint motion in amputee soccer players. *European Journal of Adapted Physical Activity*, 2019; 12(2).
15. Moula P, Goodman M. *Nursing Research*. London: SAGE Publication Ltd., 2009.
16. Gerrish K, Lacey A. *The research process in nursing*. (6th ed.). London: Wiley-Blackwell. 2010.
17. Burns N, Grove SK. *The practice of nursing research: Appraisal, synthesis, and generation of evidence*. (6th ed.). USA: Saunders. 2009.
18. Burns N, Grove SK. *Understanding nursing research: Building an evidence-based practice*. (4th ed.). China: Saunders. 2007.
19. İlkim M., Mergan B., Karadağ H., Rüzgar K., Investigation Of Attitudes Of Pre-Service Teachers Of Exercise And Sports Education For Disabilities Towards Children With Mental Disabilities, *Pakistan Journal Of Medical & Health Sciences*, Volume15, Issue 9, 2021, Page 2641-2645..
20. İlkim M. Çelik T., Mergan B. (2021) Investigation of Sports Management Students' Perceptions and Attitudes towards the COVID-19 Pandemic, *Pakistan Journal Of Medical & Health Sciences*, Volume15 Issue 2 Page799-803,
21. Karaca Y., İlkim M., Investigation Of The Attitudes Distance Education Of The Faculty Of Sport Science Students In The Covid-19 Period, *Turkish Online Journal Of Distance Education* Volume22, Issue 4, Page114-129,2021
22. Yurtseven C.N., Duman F.K., Evaluation of Boss Phubbing in Sports Businesses, *Pakistan Journal Of Medical & Health Sciences*, 15(2).2021, 839-844