AMATEUR TENNIS PLAYER PROFILE FROM SOUTH-WEST BULGARIA AND NORTHERN GREECE

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ABSTRACT
There are few surveys related to amateur tennis. The existing surveys on this topic inform regarding the available facilities, prices for services and different programs. Our survey was focused on comparison of gender and age of amateur tennis players, as well as conditions and opportunities for amateur tennis in a hundred kilometers radius area covering two countries – Bulgaria and Greece. The collected information may be useful for tennis enthusiasts from both countries, and it may contribute to improvement of the relationship and partnership between them, especially since the distance between some tennis clubs in R. Greece and R. Bulgaria is less than sixty kilometers. The objective of the current study was creating a profile (age, gender, social and sport) of the amateur tennis player from Northern Greece and Southwestern Bulgaria and opening up opportunities for practicing amateur tennis in these border regions.
The results established some differences in the profile of amateur tennis players from the two countries, by gender and preferences. There was a significant difference in the age of Greek and Bulgarian tennis players, in Greece, the highest percentage was this one of 19 - 25 year olds, while the highest percentage of players in Southwestern Bulgaria was between 25-30 years old. The tennis courts in Bulgaria seem to be better maintained than those in Greece. On the positive side, the distances to the tennis clubs are not long, and the participants from both countries responded that this made it easier for them to practice tennis. The tennis amateurs are used to playing in one place, and prefer to play with the same partner. Tennis is an affordable sport as both in Greece (region of Macedonia) and in South-West Bulgaria, the prices of tennis services are within the means of all surveyed tennis players.

Keywords*: interest, gender, age conditions, programs, tennis services, accessibility*

INTRODUCTION

Tennis is one of the most popular games nowadays. Tennis is a sport that is often popularized by media (Stoyanova, 2013). It is not only the most popular racquet sport, but it is also among the three sports with the most (over 1.2 billion) followers worldwide. It is played by 87 million people of all ages and all sexes in Europe, North and South America, Asia, Australia, Japan, Russia. The International Tennis Federation is the third largest in its membership of 213 national federations. (Itftennis.com)

The International Tennis Federation is the third largest tennis federation, with 210 national federations as members (International Tennis Federation, 2021). David Haggerty, ITF President, says in the Global Tennis Report 2021 that the ITF member countries are 210 and the goal is to increase the number of people playing tennis to 120 million by 2030 (International Tennis Federation, 2021).

Evidence of the game's growing popularity around the world in recent years are the millions of fans and followers of top tennis players on social media (Hodgkinson, 2016).

After a literature review of print and Internet sources, we found that research in tennis is focused primarily on the regularly practicing athletes. (Skorodumova, 1994; Bolitieri, 2009, Crespo and Miley, 2002; Read, Quinn, & Crespo, 2003; Reid et al, 2009 Robert, & Gropel 2004, Roetert, & Ellenbecker 2009).

The existing surveys related to amateur tennis are few and inform regarding the available facilities, prices for services and different programs. (Eskiyecek & Keskin 2020; Chansheng, 2017; Xin He 2022)

For example, one study among students (Stoyanova, 2013) established that the interest in playing amateur tennis was only weakly related to the interests in some other sport games with a ball.

It was of interest to us to define the gender, age, conditions and opportunities for practicing amateur tennis in an area with a radius of one hundred kilometers covering two neighboring regions. In the context of the scientific intentions thus declared, our study pursued the following *objective*: to create a profile (age, gender, social and sport) of the amateur tennis player from Northern Greece and South-West

Bulgaria and to reveal the opportunities for practicing amateur tennis in these two bordering regions.

We believe that the information obtained as a result of this research may be useful for tennis lovers from both countries, where in some cases the distance between a tennis club in Greece and a tennis club in Bulgaria is less than sixty kilometers. We hope the research findings to contribute to improving the relationship and partnership between them.

METHODS

The study was conducted from February 2021 to May 2021. This was a cross-sectional study.

Participants

The participants in the study were 130 amateur tennis players, of which 75 from Greece (from the cities of Pella, Thessaloniki, Kilkis, Serres and Drama), and 55 from Bulgaria (from the cities of Blagoevgrad, Petrich, Sandanski, Gotse Delchev and Bansko). In this region of Bulgaria, the earliest organized tennis began to be played in 1982 in Blagoevgrad. In the other settlements in both regions, tennis courts and clubs appeared 10 to 20 years later.

The difference between the number of the studied amateur tennis players from Bulgaria and Greece was not statistically significant ($\chi2 = 3.077$, df = 1, p = .079).

Table 1. *Percentage distribution of some socio-demographic characteristics of the studied Bulgarian and Greek amateur tennis players*

Socio-demographic characteristics	**Greek** amateur tennis players	**Bulgarian** amateur tennis players
Gender:	63% women 37% men	51% women 49% men
Age	45% aged 19-25, 43% aged 26-50 years, 12% over 50 years old	31% aged 19-25 years, 63% aged 26 - 50 years, 6% over 50 years old

There were not any statistically significant differences ($\chi2 = 0.018$, df = 1, p = .893) between the number of the studied men in Bulgaria (N=27) and in Greece (N=28), but the studied women amateur tennis players in Greece (N=47) were statistically significant more ($\chi2 = 4.813$, df = 1, p = .028) than the studied Bulgarian women tennis players (N=28) – see Table 1.

Statistically significant ($\chi2 = 5.120$, df = 1, p = .024) more participants from 19 to 25 years were studied in Greece (N=33) than this age group in Bulgaria (N=17) – see Table 1. There were not any statistically significant differences between the number of Greek (N=33) and Bulgarian (N=35) participants from 26 to 50 years old ($\chi2 = 0.059$, df = 1, p = .808). There were not any statistically significant differences between the number of Greek (N=9) and Bulgarian (N=3) participants above 50 years old ($\chi2 = 3$, df = 1, p = .083).

The studied Bulgarian and Greek amateur tennis players statistically significant differed in their education ($\chi2 = 21=072$, df = 3, p < .001; Cramer's V = 0.403, i.e., a moderate effect size, according to IBM, 2022) – see Table 2. Significantly more amateur tennis players with secondary and higher education than expected were studied in Bulgaria – see Table 2. Significantly more amateur tennis players with doctoral education than expected were studied in Greece – see Table 2.

Table 2. *Frequency distribution of educational characteristics of the studied Bulgarian and Greek amateur tennis players*

			Education			
			Elementary	Secondary	Higher	Doctoral
Country	Bulgaria	Observed Count	3	21	30	1
		Expected Count	5.5	16.1	23.7	9.7
		% within country	5.5%	38.2%	54.5%	1.8%
	Greece	Observed Count	10	17	26	22
		Expected Count	7.5	21.9	32.3	13.3
		% within country	13.3%	22.7%	34.7%	29.3%

Instruments

The survey was the main method of data collection in this study. All participants answered to three main groups of questions - about their sports experience, motivation, as well as about their playing conditions and some financial issues related to accessibility to the tennis services used.

Methods for data analysis

The results were descripted as percentages and were compared by means of chi-square analysis by means of SPSS 20.

RESULTS

Table 3 compares the results of the responses of Greek and Bulgarian tennis amateurs regarding their sports experience.

Table 3. *Percentage distribution of some responses of Greek and Bulgarian tennis amateurs concerning their sports experience*

Questions	**Greek** amateur tennis players' answers	**Bulgarian** amateur tennis players' answers
How many times a week do you play tennis?	13% - every day, 17% - 6 times a week, 24% - 4 times a week, 46% - 1-2 times a week	12% every day, 17% - 6 times a week, 23% - 4 times a week, 48% 1-2 times a week
Are you playing with the same partner?	57% - same 43% - different	60% - same 40% - different
What tournaments do you participate in?	20 athletes in club tournaments, 20 in city, 25 in municipal, 5 in regional, 32 in state, 2 in international tournaments	46 athletes in club tournaments, 25 in city, 24 in municipal, 7 in districts, 3 in state, 3 in international tournaments

There were not any statistically significant differences between the studied Bulgarian and Greek tennis players in their frequency of playing tennis during the week, i.e. how many times a week they played tennis ($\chi 2 = 0.054$, df = 3, p = .997) – see Table 3. The largest percentage of both groups of participants indicated that they played tennis 1-2 times a week. They preferred to play tennis with the same partner in both countries – see Table 3. The studied Greek and Bulgarian amateur tennis players participated in almost the same number of tournaments – 104 tournaments in total for the Greek tennis players and 108 tournaments in total for the studied Bulgarian tennis players – see Table 3. However, the studied Bulgarian tennis players participated in more club tournaments (N = 46) than the Greek amateur tennis players (N = 20), while the last participated in more state tournaments (N = 32) than the former (N = 3) – see Table 3.

Table 4. *Percentage distribution of some responses of Greek and Bulgarian tennis amateurs concerning t heir motivation*

Questions	**Greek** amateur tennis players' answers	**Bulgarian** amateur tennis players' answers
Why do you play tennis?	52% - for fun 26.6% - to improve health 21.3% - because it's trendy	47.3% - for fun 30.9% - to improve health 21.8% - because it's trendy
Who introduced you to tennis?	38.7% - friends 30.7% - family 16% - classmate 8% - PE teacher 6.6% - coach	49.1% - friends 25.4% - family 1.8% - classmate 14.5% - PE teacher 9% - coach

There were not any significant differences between the studied Bulgarian and Greek amateur tennis players in their explanations why they played tennis ($\chi2 = 0.346$, df = 2, p = .841) – see Table 4. Primarily tennis was played for recreation and as a means of improving health. There were not any significant differences between the studied Bulgarian and Greek amateur tennis players in the types of people who introduced them to tennis ($\chi2 = 8.99$, df = 4, p = .061) – see Table 4.

Table 5. *Percentage distribution of some responses of Greek and Bulgarian tennis amateurs concerning some financial issues related to tennis services*

Questions	**Greek** amateur tennis players' answers	**Bulgarian** amateur tennis players' answers
What are the prices for the services?	One hour -10 euro, individual lesson with coach 50 euro in a group 10 euro	One hour -10 leva, (5 euro) individual lesson with a coach 20-30 leva (10-15 euro) in a group 10 leva (5 euro)
Do you use some appliances that you rent?	Yes 42.6% No 57.3 %	Yes 56.3% No 43.7%
Price of tennis racket	44% spend from 100 -200 euros, 28% up to 100 euros and 28% > 200 euros	40% up to 200 leva = (about 200 euros) 30,1% up to 200-400 BGN = (about 100-200 euros) 29,8% > 400 leva = (about 200 euros)
Over what period of time do you buy a new racket and balls?	45.3% every 2-3 years 25.3% - buy 1 racket every year 29.3% - buy a racket every > 3 years	47.2% - every 2-3 years 25.4% buy 1 racket every year 27.2% > 3 years
How many tennis rackets do you have?	38.6% -2 rackets 36% - 1 racket 20% - 3 rackets 5.3 % > 3 rackets	34.5% - 2 rackets 32.8% - 1 racket 14.5% - 3 rackets 18.2% > 3 rackets
How often during the year do you change the cordage on the rackets?	52% - once 37.3% - 2 times 10.7% > 3 times	41.8% - once 40% - 2 times 18.1% > 3 times

The price of the court and the price of group lessons in the two regions was very similar. Noticeable is the difference in the price of individual lessons, almost 4-5 times higher in Greece compared to Bulgaria.

There were not any significant differences between the studied Bulgarian and Greek amateur tennis players in their use of some appliances that they rent ($\chi2 = 2.383$, df = 1, p = .123) – see Table 5. There were not any significant differences between the studied Bulgarian and Greek amateur tennis players in the period of time over which they bought a new racket and balls ($\chi2 = 0.073$, df = 2, p = .964) – see Table 5. Most of them bought new rackets on average every 2 years. There were not any significant differences between the studied Bulgarian and Greek amateur tennis players in the number of rackets they had ($\chi2 = 5.642$, df = 3, p = .13) – see Table 5. Most Greek and Bulgarian athletes owned 2 rackets each. There were not any significant differences between the studied Bulgarian and Greek amateur tennis players in the frequency of changing of the cordage on the rackets ($\chi2 = 2.043$, df = 2, p = .36) – see Table 5. The studied athletes had their racquets strung at the clubs where they played, in most cases once a year.

Table 6. *Percentage distribution of some responses of Greek and Bulgarian tennis amateurs concerning how the price of tennis court reflected on their visits to court*

			Does the cost of the service limit your visits to the court?	
			not bothered by the price of the court	Yes, the price limits the court visits
Country	Bulgaria	Observed Count	48	7
		Expected Count	37.7	17.3
		% within country	87.3%	12.7%
	Greece	Observed Count	41	34
		Expected Count	51.3	23.7
		% within country	54.7%	45.3%

Significantly more Bulgarian amateur tennis players than expected were not bothered by the price of the tennis court, in difference with Greek amateur tennis players who limited their court visits more than expected ($\chi2 = 15.624$, df = 1, $p < .001$, Cramer's V = 0.347, i.e. moderate effect size, according to according to IBM, 2022) – see Table 6.

Table 7. *Percentage distribution of some responses of Greek and Bulgarian tennis amateurs concerning their playing conditions*

Questions	**Greek** amateur tennis players' answers	**Bulgarian** amateur tennis players' answers
Do the tennis courts have lighting installed?	85.3% of the courts have lighting without lighting are 14.6%	There is lighting on 94.5% of the courts without lighting are 5.4%
Whose property are the tennis courts?	21.3% - state 61.3% - municipal 12% - private 5.4% - corporate	12.7% - state 56.3% - municipal 25.4% - private 5.5% - corporate
Do you play in one club or do you go to the other as well?	84% play at the same club 16% in other clubs	81,8% play at the same club 18.2% in other
Does your club organize tournaments for amateurs?	35 club tournaments, 5 city tournaments, 45 municipal tournaments, 0 regional, 15 state, 12 international	39 club tournaments, 21 city tournaments, 33 municipal tournaments, 4 regional 3 state, 2 international

There were not any significant differences between the answers of the studied Bulgarian and Greek amateur tennis players regarding the lighting of tennis courts in each country ($\chi2 = 2.802$, df = 1, $p = .094$) – see Table 7. Almost all facilities in both Greece and Southwest Bulgaria had lighting, and could be used in the evening hours.

There were not any significant differences between the answers of the studied Bulgarian and Greek amateur tennis players regarding the types of the property of tennis courts in each country ($\chi2 = 4.708$, df = 3, $p = .194$) – see Table 7. Most courts in both regions were municipally owned.? In Greece, the courts with a hard surface (64%), and in Bulgaria, a larger part are clay courts (69.1%), answered the respondents.

There were not any significant differences between the answers of the studied Bulgarian and Greek amateur tennis players regarding if they played tennis in the same tennis club or in other tennis clubs ($\chi2 = 0.107$, df = 1, $p = .743$) – see Table 7. Tennis players usually used the same courts. The tennis clubs of the studied Greek and Bulgarian amateur tennis players organized some tournaments for amateurs – almost the same number of club tournaments in Bulgaria as in Greece – see Table 7.

Table 8. *Percentage distribution of the responses of Greek and Bulgarian tennis amateurs concerning their proximity to tennis courts*

			How close is the court you play on to your home?	
			up to 5 km	longer distance
Country	Bulgaria	Observed Count	51	4
		Expected Count	42.7	12.3
		% within country	92.7%	7.3%
	Greece	Observed Count	50	25
		Expected Count	58.3	16.7
		% within country	66.7%	33.3%

Significantly more Bulgarian amateur tennis players than expected lived near the tennis court, in difference with Greek amateur tennis players whose homes were far from the tennis court more frequently than expected ($\chi 2 = 12.434$, df = 1, $p < .001$, Cramer's V = 0.309, i.e., moderate effect size, according to according to IBM, 2022) – see Table 8.

When asked what they thought as necessary for improvement of the conditions and opportunities for amateur tennis in their area, both the studied Bulgarian and Greek amateur tennis players recommended free participation, creation of new courts, maintenance of courts, lighting of courts, free equipment (rackets, balls), participation in tournaments, and hiring coaches. All participants said that in order to improve the conditions and opportunities for amateur tennis, the following should be done:

- Access to municipal and state tennis facilities to be free and unrestricted.
- Construction of new modern courts and improved maintenance of existing ones,
- installation of adequate lighting,
- free provision of equipment (rackets, balls),
- opportunities to participate in tournaments and
- hiring of tennis coaches.

DISCUSSION

After a thorough and correct processing of the data from the present study, we found that the number of female amateur tennis players in Northern Greece was higher than that of men. In the South-West Bulgaria, the number of men and women who participated in the survey was approximately equal. Another significant difference was in the age of the Greek and Bulgarian players - in Greece the largest percentage of players was 19-25 years old, and they were significantly more in number than this age group in Southwestern Bulgaria. Amateur tennis players with a doctoral degree of education prevailed in Greece (Macedonia) compared to Southwestern Bulgaria.

The studied amateur tennis players in Bulgaria and in Greece had similar motivation for playing tennis. More participants from Greece (Macedonia) than from Bulgaria were not satisfied with the price of the courts they used and with the distance to the tennis court that reflected on the affordability of tennis service. In this part of Greece, the tennis courts are mostly hard surfaced, in contrast to Southwest Bulgaria, where clay courts predominate.

Both in Bulgaria and in Greece, the amateurs were well organized and participate in a large number of tournaments throughout the year. Most of them played in club and municipal competitions, but the number of participants in international competitions was small.

CONCLUSION

We can summarize that we found almost no differences in the profile of the amateur tennis player in the regions Macedonia in Greece and Southwestern Bulgaria regarding their motivation for playing tennis – they loved tennis and played it for fun with almost the same frequency in both countries. The amateur tennis players in the regions Macedonia in Greece and Southwestern Bulgaria differed regarding their gender, age and educational profile, as well as in their estimation of affordability of tennis services being slightly higher in Bulgaria than in Greece.

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National Sports Academy "Vassil Levski"
Sofia, Bulgaria

International Scientific Congress "Applied Sports Sciences"

2–3 December 2022

PROCEEDING BOOK

Volume 2

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Sofia, Bulgaria

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Design: Stanislav Hristov, Svetla Kostova, Radostina Angelova
Printed and bounded by: ZONA ArtPRINT Ltd.
Publisher: Scientific Publishing House NSA Press
ISBN (Online): 978-954-718-702-3
ISBN (Print): 978-954-718-701-6