

# USER EVALUATION OF QUALITY OF SPORTS AND RECREATIONAL PROGRAMS

# KORISNIČKA EVALUACIJA KVALITETA SPORTSKO-REKREATIVNIH PROGRAMA

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**Abstract:** Sports and recreational programs are an important segment of a healthy lifestyle with which health and work abilities can be prevented and improved. Regular and systematic practice of various sports and recreational programs enables a positive impact on several dimensions of quality of life such as physical, psychological, social, economic and spiritual wellness. This research was conducted in sports and recreational clubs using the survey method. The aim of the research was to assess satisfaction with the quality of performed recreational programs. On a sample of 328 respondents ( $M = 142$ ;  $F = 186$ ), aged 30 to +60 years, a questionnaire was used to assess the elements of program quality, and the obtained data were processed by descriptive and comparative statistics. The obtained results show that all seven elements of quality assessment of used sports and recreational programs have high average grades (above four), and among them with a zone of high intensity is the element "Total feeling of satisfaction after the program" (4,65) and the element "Group atmosphere during the implementation of the program" (4,56). The results of the analysis of variance showed that women show significantly more intense expression of satisfaction resulting from participation in sports and recreational programs, and the evaluation of the program is most intensively assessed by respondents aged 30-40 (4,52).

**Keywords:** sports and recreational programs, recreational athletes, assessment scale.

**Sažetak:** Sportsko-rekreativni programi su važan segment zdravog načina života sa kojima se može prevenirati i poboljšati zdravlje i radne sposobnosti. Redovno i sistematsko upražnjavanje različitih sportsko-rekreativnih programa omogućuje pozitivan uticaj na više dimenzija kvaliteta života kao što su fizički, psihološki, socijalni, ekonomski i duhovni wellness. Ovo istraživanje provedeno je u sportsko-rekreativnim klubovima uz primjenu Servej metoda. Cilj istraživanja je bio da se izvrši procjena zadovoljstva kvalitetom upražnjenih rekreativnih programa. Na uzorku od 328 ispitanika ( $M=142$ ;  $Ž=186$ ), starosti 30 do +60 godina, primjenjen je upitnik za procjenu elemenata kvaliteta programa, a dobijeni podaci su obrađeni postupcima deskriptivne i komparativne statistike. Dobijeni rezultati govore o tome da svih sedam elemenata procjene kvaliteta korišćenih sportsko-rekreativnih programa imaju visoke prosječne ocjene (iznad četvorke), a među njima sa zonom visokog intenziteta je element „Ukupan osjećaj zadovoljstva nakon završetka programa“ (4,65) i element „Grupna atmosfera tokom realizacije programa“ (4,56). Rezultati analize varijanse pokazali su da se kod žena uočava znatno intenzivnije iskazivanje zadovoljstva koje proizilazi iz učešća u sportsko-rekreativnim programima, a vrednovanje programa najintenzivnije ocjenjuju ispitanici starosne grupe od 30-40 godina (4,52).

**KLjučne riječi:** sportsko-rekreativni programi, rekreativci, skala procjene.

## INTRODUCTION

Doing sports, whether professionally or recreationally, is important for all people because exercise and every sports activity is a predictor of a healthy and long life (Torbarina, 2011), and as physical activity activates the complete locomotor system crucial for energy trans-

## Uvod

Bavljenje sportom, bilo profesionalno ili rekreativno, važno je za sve ljude jer je vježbanje i svaka sportska aktivnost prediktor za zdrav i dug život (Torbarina, 2011), a kako fizička aktivnost aktivira kompletan lokomotorni sistem presudan za transformaciju energije koja je od

formation which is essential for activity of all cells in the body, sport and physical activity can be treated as a determinant for the harmonious development of all children's traits and anthropological characteristics (Krželj, 2009). Scientific findings convincingly show that physical inactivity is one of the strongest factors of health disorders (Vuori, 2004), and that any targeted systemically repeated physical activity is important in health care (Andrijasevic, 2000). Regular physical activity is very important for the health of both men and women (US Department of Health and Human Services, 1996), with the recommendation that adults and the elderly actively participate in all forms of moderate-intensity physical activity for a minimum of 30 minutes daily to maintain mobility (WHO, 2010). Physical activity plays a significant role in the life satisfaction of individuals (Melin, Fugl-Meier, & Fugl-Meier, 2003), and one of the valuable means of increasing life satisfaction is considered to be physical activity (Maher, Pincus, Ram, & Conroyd, 2015). Physical activity affects quality of life (Pucci et al., 2012). Childhood and youth are the most important developmental periods, and some segments of development, e.g. specific motor skills, can be developed only by means used in sports (Doupona & Petrovic, 1997), so it is important that the chosen sports activity is not overloaded and will fill them with pleasure and joy (Martincevic, 2010), which will relieve stress at the same time, and above all create, from an early age, a habit of playing sports which will continue during adolescence and grow into a part of everyday life (Krželj, 2009). According to the World Health Organization (Global Recommendations for Physical Activity for Health, WHO, 2010), physical activity in adults includes leisure-time activity, transportation (e.g walking or cycling), occupational (i.e. work), household chores, play, games, sports or planned exercise, carried out within the family, school and sports community. Physical exercise should ensure upright posture and good functioning of organs (Jajcevic, 1997, Sekulic & Metikos, 2007), so physical fitness is defined as the ability to perform moderate to vigorous physical activity without excessive fatigue, i.e. the ability developed by exercise based on which a person can perform the basic activities of everyday life and spend free time in an active way (Trninic, 2006). Because a habit leads to a need to move, if developed, it will have an optimal effect (O'Sullivan, 2004; Tappe & Burgeson, 2004), on those activities for which, based on research in target groups, a positive attitude and acceptance is determined (Fras, 2002). Sports recreation is part of a wide area of recreation, where physical activation meets general human

suštinskog značaja za aktivnost svih ćelija u tijelu, to se sport i fizička aktivnost mogu tretirati kao odrednica za harmoničan razvoj svih dječjih osobina i antropoloških karakteristika (Krželj, 2009). Naučna saznanja uvjerljivo pokazuju da je fizička neaktivnost jedan od najjačih faktora zdravstvenih poremećaja (Vuori, 2004), te da je svaka ciljana sistemski ponovljena fizička aktivnost važna u zdravstvenoj zaštiti (Andrijašević, 2000). Redovna fizička aktivnost veoma je važna za zdravlje, kako muškaraca tako i žena (U.S. Department of Health and Human Services, 1996), sa preporukom da odrasli i starije osobe aktivno učestvuju u svim vidovima fizičke aktivnosti umjerenog intenziteta minimalno 30 minuta svakodnevno kako bi kroz aktivnost održavale mobilnost (WHO, 2010). Fizička aktivnost igra značajnu ulogu u životnom zadovoljstvu pojedinaca (Melin, Fugl-Meier i Fugl-Meier, 2003), a jednim od vrijednih sredstava za povećanje zadovoljstva životom smatra se tjelesna aktivnost (Maher, Pincus, Ram i Conroyd, 2015). Fizička aktivnost utiče na kvalitet života (Pucci i sar., 2012). Djetinjstvo i mladost su najvažniji razvojni periodi, a neki segmenti razvoja, npr. specifična motorička znanja, mogu se razviti samo sredstvima koja se koriste u sportu (Doupona i Petrović, 1997), pa je važno da izabrana sportska aktivnost ne bude preopterećena i ispuniće ih zadovoljstvom i radošću (Martincević, 2010), što će ih istovremeno osloboditi stresa, a prije svega stvoriti od malih nogu naviku bavljenja sportom koja će se nastaviti tokom adolescencije i prerasti u dio svakodnevnog života (Krželj, 2009). Prema Svjetskoj zdravstvenoj organizaciji (Global recommendations on Physical activity for health, WHO, 2010), fizička aktivnost kod odraslih osoba uključuje aktivnosti u slobodno vrijeme, prevoz (hodanje ili vožnja biciklom), aktivnosti na poslu, obavljanje kućnih poslova, igranje, sport, organizovano i individualno vježbanje i sve aktivnosti koje se sprovode u okviru porodice, škole i sportske zajednice. Fizičko vježbanje treba da obezbjedi uspravno držanje tijela i dobro funkcionisanje organa (Jajčević, 1997., Sekulić & Metikoš, 2007), pa se fizički fitnes definiše kao sposobnost obavljanja umjerene do snažne fizičke aktivnosti bez prekomjernog umora, odnosno sposobnost koja se razvija vježbanjem na osnovu koje čovjek može obavljati osnovne aktivnosti svakodnevnog života i provoditi slobodno vrijeme na aktivan način (Trninić, 2006). Budući da navika dovodi do potrebe za kretanjem, ako se razvija, imaće optimalan efekat (O'Sullivan, 2004; Tappe & Burgeson, 2004), na one aktivnosti za koje se, na osnovu istraživanja kod ciljanih grupa, utvrdi pozitivan stav i prihvaćanje (Fras, 2002). Sportska rekreacija dio je širokog područja rekreacije, gdje fizička aktivacija zadovoljava opšte čo-

needs, maintenance and improvement of psychophysical abilities (Andrijasevic, 2010). Group fitness programs are the most widespread form of sports recreation, and as systemically repeated recreational forms of exercise have positive effects on the transformation of functional abilities of the organism and changes in the body system (McCord, Nichols & Patterson, 1989; Furjan-Mandic, G. 2011). Recreational activities include activities classified into 7 groups, such as: tours, water activities (rivers and lakes), air activities, sports activities, curiosity discovery activities, work process activities, cultural and health activities (Demonja, Ruzic, 2010). The research was conducted with the aim of determining attitudes of users towards the quality of sports and recreational activities in order to perform an evaluation of the satisfaction of user participation on the basis of which data useful for improving the quality of sports and recreational activities covered by this research would be obtained.

## METHOD

this research was implemented in the environment of sports and recreational clubs that have a different content offer in their program representation, as an empirical transversal study (survey method). The emphasis was on programs dominated by outdoor activities (walking, biking, mountain climbing, Nordic walking, outdoor fitness, aerobics, excursions, skiing and swimming). The aim of the research was to identify satisfaction with the quality of recreational programs, through the prism of perception of their immediate participants. The research sample consisted of a total of 328 respondents, users of sports and recreational clubs services. Subsampling was performed through two segments: (a) in relation to gender (M=142; F=186) and (b) by age, the subsample was divided into four levels using the Transform Visual Binning procedure: (1) of 30 to 40 years of age, (2) 41 to 50 years of age, (3) 51 to 60 years of age, and (4) over 60 years of age). Empirical data were collected using questionnaires used in some previous similar studies (Nesic, Nesic & Peric, 2016). In addition to personal data on gender and age, the instrument contained a set of items intended for assessing certain aspects of the quality of recreational programs: the environment where the program is held/implemented; program organization; the atmosphere that prevails during the implementation of the program; quality of professional information during the implementation of the program; program attractiveness; subjective feeling of satisfaction after the end of the program and safety of the participants during the implementation of the program. Respondents expressed their assessment

vjekove potrebe, održavanje i unapređenje psihofizičkih sposobnosti (Andrijašević, 2010). Grupni fitness programi su najrasprostranjeniji oblik sportske rekreacije, a kao sistemski ponavljani rekreativni oblici vježbanja imaju pozitivne efekte na transformaciju funkcionalnih sposobnosti organizma i promjene u tjelesnom sistemu (McCord, Nichols & Patterson, 1989; Furjan-Mandić, G. 2011). Rekreativne aktivnosti uključuju aktivnosti klasifikovane u 7 grupa, kao što su: ture, vodene aktivnosti (rijeke i jezera), vazdušne aktivnosti, sportske aktivnosti, aktivnosti otkrivanja zanimljivosti, aktivnosti radnog procesa, kulturne i zdravstvene aktivnosti (Demonja, Ružić, 2010). Istraživanje je provedeno sa ciljem utvrđivanja stavova korisnika prema kvalitetu sportsko-rekreativnih aktivnosti kako bi se izvela evaluacija o zadovoljstvu učestvovanja korisnika na osnovu koje bi se dobili podaci korisni za poboljšanje kvalitete sportsko-rekreativnih aktivnosti obuhvaćenih ovim istraživanjem.

## METOD

ovo istraživanje je realizovano u okruženju sportsko-rekreativnih klubova koji u svojoj programskoj zastupljenosti imaju različitu sadržajnu ponudu, kao empirijska transverzalna studija (Survey metod). Akcenat je bio na programima u kojima dominiraju aktivnosti na otvorenom (pješačenje, biciklizam, planinarenje, nordijskasko hodanje, fitness na otvorenom, aerobik, izleti, skijanje i plivanje). Cilj istraživanja je bio usmjeren na identifikaciju zadovoljstva kvalitetom upražnjavanih rekreativnih programa, kroz prizmu percepcije njihovih neposrednih učesnika. Istraživački uzorak je sačinjavalo ukupno 328 ispitanika, korisnika usluga sportsko-rekreativnih klubova. Subuzorkovanje je sprovedeno kroz dva segmenta: (a) u odnosu na pol (M=142; Ž=186) i (b) prema starosnoj dobi (subuzorak je podjeljen na četiri nivoa primjenom procedure presjeka (*Transform Visual Binning*): (1) od 30 do 40 godina života, (2) od 41 do 50 godina života, (3) od 51 do 60 godina života i (4) preko 60 godina života). Prikupljanje empirijskih podataka obavljeno je primjenom upitnika korišćenim u nekim prethodnim sličnim istraživanjima (Nešić, Nešić & Perić, 2016). Instrument je, pored personalnih podataka o polu i starosnoj dobi, sadržavao set ajtema namjenjenih procjeni pojedinih aspekata kvaliteta upražnjavanih rekreativnih programa: ambijenta gdje se održava/realizuje program; organizaciju programa; atmosferu koja vlada tokom realizacije programa; kvalitet stručnih informacija tokom realizacije programa; atraktivnost programa; subjektivni osjećaj zadovoljstva nakon završetka programa i bezbjednost učesnika tokom realizacije programa. Svoju procjenu, ispitanici su iskazivali izborom

by choosing one of the five positions on the Likert-type scale, where the value "1" represented the lowest, and the value "5" the highest level of quality perception.

The metric of the questionnaire used in this study was reassessed using two procedures: (1) checking its internal compliance (Scale Reliability Analysis based on the Cronbach's alpha coefficient), (Table 1) and (2) factor analysis (*Principal Components Analysis*) with the method of oblique rotation (*Direct Oblimin*), (Table 2). Empirical research data were processed by procedures of descriptive and comparative statistics. From the space of descriptive statistics, for each variable (both at the level of the complete sample and subsamples) the following were calculated: a) frequency distribution (absolute and relative), arithmetic mean (*Mean*), Standard deviation (*Std. Deviation*) and standard error (*Std. Error*). Comparative statistical procedures were represented using contingency analysis ( $X^2$  test) as well as one-factor analysis of variance. The factor analysis procedure was used to determine the latent satisfaction structure. All statistical inferences were conducted at a significance level of 0,05 (*Sig.* < ,05).

## RESULTS

the basis for the correct analysis of empirical data and the creation of conditions for drawing valid research conclusions was identified by assessing the validity of the applied seven-item satisfaction scale. The performed assessment of the suitability of the data for factor analysis showed that there is a sufficient number of coefficients of 0,3 value and more in the correlation matrix. According to the Kaiser-Meyer-Olkin Measure of Sampling Adequacy, the required recommended value of 0,6 (Kaiser, 1970, 1974) was exceeded at a statistically high level (0,880) in this case. Also, Bartlett's test of sphericity (Bartlett, 1954) reached statistical significance (*Sig.* = ,000), which all indicates the appropriate factor stability of the correlation matrix (Table 1). Also, the results obtained by applying this seven-item scale of quality (satisfaction) perception show that the instrument has good internal consistency, as indicated by the Cronbach's alpha coefficient (0,879), which is significantly higher than the recommended theoretical value of 0,7 (De Vellis, 2003) (Table 1).

jedne od pet pozicija na skali Likertovog tipa, gde je vrijednost „1“ predstavljala najniži, a vrijednost „5“ najviši nivo percepcije kvaliteta. Metrika upitnika primjenjena u ovom istraživanju ponovo je procjenjena i to primjenom dva postupka: (1) provjerom njene unutrašnje saglasnosti (*Scale Reliability Analysis* koja je zasnovana na Kronbahovom alfa koeficijentu), (Tabela 1) i (2) faktorskom analizom (analiza glavnih komponenti – *Principal Components Analysis*) sa metodom kose rotacije (*Direct Oblimin*), (Tabela 2). Empirijski istraživački podaci obrađeni su postupcima deskriptivne i komparativne statistike. Iz prostora deskriptivne statistike, za svaku varijablu (kako na nivou kompletnog uzorka, tako i subuzoraka) izračunati su: a) distribucija frekvencije (apsolutna i relativna), aritmetička sredina (*Mean*), standardna devijacija (*Std. Deviation*) i standardna pogreška (*Std. Error*). Komparativne statističke procedure bile su zastupljene korišćenjem kontingencijske analize ( $X^2$  test), kao i jednofaktorske analize varijanse. Za utvrđivanje latentne strukture zadovoljstva primjenjena je procedura faktorske analize. Sva statistička zaključivanja sprovedena su na nivou značajnosti od 0,05 (*Sig.* < ,05).

## REZULTATI

osnova za korektnu analizu empirijskih podataka i stvaranje uslova za izvođenje validnih istraživačkih zaključaka identifikovana je procjenom validnosti primjenjene sedmoajtemske skale zadovoljstva. Izvršena procjena prikladnosti podataka za faktorsku analizu pokazala je da u korelacionoj matrici ima dovoljan broj koeficijenata vrijednosti 0,3 i više. Prema Kajzer-Majer-Olkinovom kriterijumu (*Kaiser-Meyer-Olkin Measure of Sampling Adequacy*) neophodna preporučena vrijednost od 0,6 (Kaiser, 1970, 1974) je u ovom slučaju bila premašena na statistički visokom nivou (0,880). Takođe je i Bartletov test sferičnosti (*Bartlett's test of sphericity*) (Bartlett, 1954) dostigao statističku značajnost (*Sig.* = ,000), što sve ukazuje na odgovarajuću faktorsku stabilnost korelacione matrice (Tabela 1). Takođe, rezultati dobijeni primjenom ove sedmoajtemske skale percepcije kvaliteta (zadovoljstva) pokazuju da instrument ima dobru unutrašnju saglasnost, na šta ukazuje Kronbahov koeficijent alfa (0,879) koji je značajno veći od preporučene teorijske vrijednosti 0,7 (De Vellis, 2003) (Tabela 1).



**Table 1:** Elements of internal consistency of the satisfaction scale

**Tabela 1:** Elementi unutrašnje saglasnosti skale zadovoljstva

Indicator / Indikator	Elements of recreational program quality / Elementi kvaliteta rekreativnog programa	Influence of item removal on alpha coefficient / Uticaj uklanjanja stavke na alfa ko- eficijent
1.	Environment where program is implemented / Ambijent gdje se realizuje pro- gram	.864
2.	Organizational aspects of the program / Organizacioni aspekti programa	.850
3.	Atmosphere that prevails during the implementation of the program / Atmosfera koja vlada tokom realizacije programa	.858
4.	Quality of professional information during the program implementation / Kvalitet stručnih informacija tokom realizacije programa	.855
5.	Attractiveness of the program / Atraktivnost programa	.857
6.	Subjective feeling of satisfaction after program completion / Subjektivni osjećaj zadovoljstva nakon završetka programa	.866
7.	Safety of participants during the implementation of the program / Bezbednost učesnika tokom realizacije programa	.858
Cronbach's alpha coefficient / Kronbahov alfa koeficijent:		.879

The analysis of the collected data showed that the sample is characterized by a higher representation of females (186; 56,7%) compared to men (142; 43,3%), which can be interpreted that women, in the context of this research, use sports and recreational content more and more creatively and thus improve their fitness status, and men are more oriented towards improving the social status that they achieve through the implementation of some of the sports and recreational programs. Regarding the age structure, it was identified that the majority of respondents are between the ages of 30 and 50 (82,1%), while the least are those who are actively involved in recreational programs after the age of sixty (7,6%). On the other hand, it is noticeable that in the ages of 30-40 and 51-60 years, females dominate (35,1%; 7,9%), compared to men (18,3%; 2,4%), which supports the differentiated basis for statistical significance (Sig. =,000) (Table 2).

Analizom prikupljenih podataka uočeno je da uzorak karakteriše veća zastupljenost osoba ženskog pola (186; 56,7%) u odnosu na muškarce (142; 43,3%) što se može tumačiti da žene, u kontekstu ovog istraživanja, više i kreativnije koriste sportsko-rekreativne sadržaje i tako poboljšavaju svoj fitenes status, a muškarci su više orijentisani za poboljšanje socijalnog statusa koje ostvaruju realizacijom nekih od sportsko-rekreativnih programa. U pogledu starosne strukture identifikovano je da se većina ispitanika nalazi u dobi od 30 do 50 godina (82,1%), dok je najmanje onih koji se u rekreativne programe aktivno uključuju nakon šezdesete godine života (7,6%). Sa druge strane uočljivo je da u uzrasnim dobi- ma od 30-40 i od 51-60 godina dominiraju osobe žen- skog pola (35,1%; 7,9%), u odnosu na muškarce (18,3%; 2,4%), što ide u prilog diferenciranoj osnovi za statistič- ku značajnost (Sig. = ,000) (Tabela 2).

**Table 2:** Distribution of representation of respondents in rela-  
tion to age

**Tabela 2:** Distribucija zastupljenosti ispitanika u odnosu na  
starosnu dob

Age / Godine	Sex / Pol		Σ
	M / M	F / Ž	
30- 40	60	115	175
	18.3%	35.1%	53.4%
41 - 50	64	30	94
	19.5%	9.1%	28.7%
51 - 60	8	26	34
	2.4%	7.9%	10.4%
+60	10	15	25
	3.0%	4.6%	7.6%
Σ	142	186	328
	56.7%	100.0%	

Chi = 35.283; Sig. = .000

Respondents gave their assessment of perceived satisfaction with the quality of sports and recreational programs in relation to individual items of the scale, which related to certain aspects of the program construct. Very high average scores (above four) were recorded for all seven quality elements (Table 3). Scalar averages that can be classified in the zone of high intensity of satisfaction were obtained for: overall feeling of satisfaction after the program (4,65), group atmosphere during the program (4,56), attractiveness of the program (4,48), safety aspects during the implementation of the program (4,47), organizational/management aspects of the program they practiced (4,43), professional information that the respondents received during the implementation of the program by the instructor (4,41) and the environment in which the programs were implemented (4,36). The total scalar average, derived from all seven indicators was 4,48 and allowed the overall quality of consumed program content to be assessed as above average, but also to indicate room for quality improvement (and thus potential user satisfaction), (Table 3).

**Table 3:** Scalar values of program elements evaluation

Indicator / Indikator	Mean	Std.dev.	Std.err.
Environment where program is implemented / Ambijent gdje se održava/realizuje program	4.36	.801	.044
Organization of the program / Organizacija programa	4.43	.755	.042
Atmosphere that prevails during the implementation of the program / Atmosfera koja vlada tokom realizacije programa	4.56	.679	.037
Quality of professional information during the program implementation / Kvalitet stručnih informacija tokom realizacije programa	4.41	.873	.048
Safety of participants during the implementation of the program / Bezbjednost učesnika tokom realizacije programa	4.47	.827	.046
Attractiveness of the program / Atraktivnost programa	4.48	.754	.042
Subjective feeling (satisfaction) after program completion / Subjektivni osjećaj (zadovoljstvo) nakon završetka programa	4.65	.528	.032
Total Sv / Ukupno Sv:	4.48	.574	.032

The results of the analysis of variance showed that the scalar averages by which the quality of recreational programs was evaluated differed statistically significantly in relation to gender (Sig. = ,000). Although the scalar averages of the subsamples showed high values (at the extremely positive end of the scale), in women there is a much more intense expression of satisfaction resulting from participation in sports and recreational programs (Table 4). This can be explained by participating in group-led programs where women identify with an instructor and are thus strongly motivated to achieve their

Ispitanici su svoju ocjenu percepiranog zadovoljstva kvalitetom upražnjavanih sportsko-rekreativnih programa davali u odnosu na pojedine ajteme skale, koji su se odnosili na određene aspekte programskog konstrukta. Za svih sedam elemenata kvaliteta evidentirane su veoma visoke prosječne ocjene (iznad četvorke), (Tabela 3). Skalarni prosjeci koji se mogu svrstati u zonu visokog intenziteta zadovoljstva dobijeni su za: ukupan osjećaj zadovoljstva nakon realizovanog programa (4,65), grupnu atmosferu tokom realizacije programa (4,56), atraktivnost/privlačnost samog programa (4,48), bezbjednosne aspekte tokom realizacije programa (4,47), organizacione/menadžmentske aspekte programa koje su upražnjavali (4,43), stručne informacije koje su ispitanici dobijali tokom realizacije programa od strane instruktora/voditelja (4,41) i ambijent/okruženje u kojem su programi realizovani (4,36). Ukupni skalarni prosjek, izveden iz svih sedam indikatora iznosio je 4,48 i omogućavao da se ukupni kvalitet konzumiranih programskih sadržaja ocjeni kao nadprosječan, ali i da se ukaže prostor za unapređenje kvaliteta (time i potencijalnog zadovoljstva korisnika), (Tabela 3).

**Tabela 3:** Skalarni vrijednosti procjene elemenata programa

Rezultati analize varijanse pokazali su da se skalarni prosjeci kojima je vrednovan kvalitet rekreativnih programa statistički signifikantno razlikuju u odnosu na pol (Sig. = ,000). Mada su skalarni prosjeci subuzoraka pokazali visoke vrijednosti (na krajnje pozitivnom kraju skale), kod žena se uočava znatno intenzivnije iskazivanje zadovoljstva koje proizilazi iz učešća u sportsko-rekreativnim programima (Tabela 4). To se može tumačiti učešćem u grupno vođenim programima gdje se žene identifikuju sa voditeljem i time su snažno motivisane da postignu svoj najbolji rezultat. Muškarci tokom korišće-

best result. Men during the use of sports and recreational programs are more individuals, less use the services of instructors, but in a unique way achieve their goals/satisfaction in improving fitness status.

**Table 4:** Descriptive indicators for the satisfaction scale in relation to gender

Sex	N	Mean	Std. Deviation
Men	142	4.32	.647
Women	186	4.60	.482
Σ	328	4.48	.574

One-factor ANOVA:  $F = 19.252$ ;  $Sig. = .000$

Also, the results of the analysis of variance for the scale as a whole showed that in relation to the subsamples according to the age criterion, there are no statistically significant differences ( $Sig. = .181$ ). Although minor differences in the values of the scalar averages are observed, they are primarily the result of the intensity of the evaluation, rather than the direction on the scale. It is noticeable that the most intensive programs are valued as a whole by respondents in the age group 30-40 years (4,52), then participants aged 41-50 years (4,50), from 51-60 years (4,39), and only finally persons over 60 years of age (4,27), (Table 5).

**Table 5:** Descriptive indicators for the satisfaction scale in relation to age

Age	N	Mean	Std. Deviation
30-40	175	4.52	.590
41-50	94	4.50	.567
51-60	34	4.39	.516
+60	25	4.27	.539
Σ	328	4.48	.574

One-factor ANOVA:  $F = 1.634$ ;  $Sig. = .181$

Principal Component Analysis (PCA) after oblimin rotation revealed the presence of one component with characteristic values (*Eigenvalues*) over one (4,060). The scree plot diagram also showed the existence of a breakpoint behind the first component. As the quantitative framework of PCA analysis showed adequate and statistically justified content, and based on Kattel's criterion (1966) it was decided to keep this component and thus define a one-factor scale, which explained 57,999% of the total variance (Table 6; Figure 1).

nja sportsko-rekreativnih programa su više individualci, manje koriste usluge voditelja, ali na svojstven način ostvaruju svoje ciljeve/zadovoljstvo u poboljšanju fitness statusa.

**Tabela 4:** Deskriptivni pokazatelji za skalu zadovoljstva u odnosu na pol

Pol	N	Mean	Std. Deviation
Muškarci	142	4,32	,647
Žene	186	4,60	,482
Σ	328	4,48	,574

Jednofaktorska ANOVA:  $F = 19,252$ ;  $Sig. = ,000$

Takođe, rezultati analize varijanse za skalu u cjelini su pokazali da u odnosu na subuzorke prema kriterijumu starosne dobi, ne postoje statistički značajne razlike ( $Sig. = ,181$ ). Mada se uočavaju manje razlike u vrijednostima skalarnih prosjeka, one su prvenstveno rezultat intenziteta vrednovanja, a ne smjera na skali. Uočljivo je da najintenzivnije programe u cjelini vrednuju ispitanici starosne grupe 30-40 godina (4,52), zatim učesnice starosne dobi 41-50 godina (4,50), od 51-60 godine (4,39), a tek na kraju osobe u životnoj dobi preko 60 godina (4,27), (Tabela 5).

**Tabela 5:** Deskriptivni pokazatelji za skalu zadovoljstva u odnosu na godine života

Godine	N	Mean	Std. Deviation
30-40	175	4,52	,590
41-50	94	4,50	,567
51-60	34	4,39	,516
+60	25	4,27	,539
Σ	328	4,48	,574

Jednofaktorska ANOVA:  $F = 1,634$ ;  $Sig. = ,181$

Analizom glavnih komponenti (PCA) je nakon oblimin rotacije otkrila prisustvo jedne komponente sa karakterističnim vrijednostima (*Eiegenvalues*) preko jedan (4,060). Takođe je i dijagram preloma (*Screeplot*) pokazao postojanje tačke loma iza prve komponente. Kako je kvantitativni okvir PCA analize pokazao adekvatan i statistički opravdan sadržaj, a na osnovu Kattel-ovog kriterijuma (1966) odlučeno je da se zadrži ova komponenta i time definiše jednofaktorski prostor skale, koji je objasnio 57,999% ukupne varijanse (Tabela 6; Slika 1).

**Table 6:** Characteristic values-total variance of the program quality assessment scale

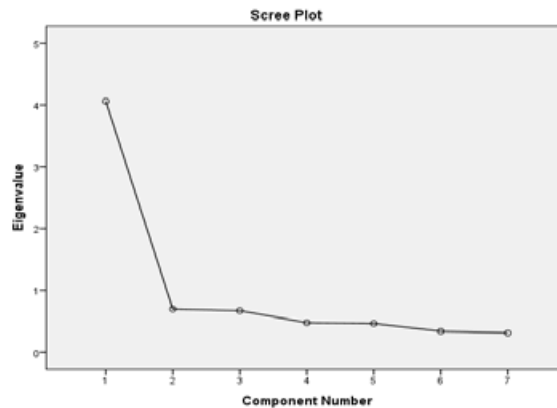
**Tabela 6:** Karakteristične vrijednosti-ukupna varijansa skale procjene kvaliteta programa

Component / Komponente	Initial Eigenvalues / Početne rijednosti			Extraction Sums of Squared Loadings / Ekstraktne sume kvadratnih vrednosti		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.060	57.999	57.999	4.060	57.999	57.999
2	.695	9.930	67.930			
3	.668	9.546	77.475			
4	.473	6.764	84.240			
5	.460	6.575	90.814			
6	.336	4.795	95.610			
7	.307	4.390	100.000			

Extraction Method: Principal Component Analysis./Ekstraktna metoda: Analiza glavne komponente

The identified communalities and factor weights, as well as the hierarchical structure on the basis of which they are manifested within the factors, imposed the determination to semantically define the context of the content of items describing the quality of recreational programs as - Program organization and management factor (Table 7).

Identifikovani komunaliteti i faktorske težine, kao i hijerarhijska strukturu na osnovu koje se ispoljavaju u okviru faktora, nametnuli su opredeljenje da se kontekst sadržaja ajtema koji opisuju kvalitet rekreativnih programa semantički definiše kao - Faktor organizacije i menadžmenta programa (Tabela 7).



**Figure 1:** Scree plot for program quality assessment indicators

**Slika 1:** Dijagram preloma (Screeplot) za indikatore procjene kvaliteta programa

**Table 7:** Factor structure of program evaluation indicators

**Tabela 7:** Faktorska struktura indikatora procjene programa

Indicator / Indikator	Item / Ajtem	Factor / Faktor	Communalities / Komunaliteti
2	Organizational aspects of the program / Organizacioni aspekti programa	.805	.648
4	Quality of professional information during the program implementation / Kvalitet stručnih informacija tokom realizacije programa	.780	.609
3	Atmosphere that prevails during the implementation of the program / Atmosfera koja vlada tokom realizacije programa	.773	.598
6	Attractiveness of the program / Atraktivnost programa	.768	.589
5	Safety of participants during the implementation of the program / Bezbjednost učesnika tokom realizacije programa	.759	.576
1	Environment where program is implemented / Ambijent gdje se realizuje program	.725	.525
7	Subjective feeling of satisfaction after program completion / Subjektivni osjećaj zadovoljstva nakon završetka programa	.718	.516
Sample adequacy indicator (KMO) = .880		Bartlett's test of sphericity = 1023.566	Sig. = .000
Pokazatelj adekvatnosti uzorka (KMO) = ,880		Bartletov test sferičnosti = 1023,566	Sig. = ,000



## DISCUSSION

In a positive sense, a person strives to realize himself/herself through certain various activities (observational, creative, active recreational), using sports-recreational and other activities of a compensatory nature (Vuckovic & Mikalacki, 1999). As a prerequisite for a better life, many authors state: proper physical exercise, quality and proper nutrition, maintaining the experience of one's identity, socialization, rejection of bad habits and stressful situations, positive attitude towards life (Saban, 2004; Sidman, 2001; Strunz, 2002; Misigoj-Durakovic et al., 2000; Andrijasevic, 2000). There is a very small number of modern researches that were conducted in sports and recreational clubs and had the quality of the content of the program as their topic, ie the identification of user satisfaction after their practice. This research shows that in terms of age structure, it is identified that most respondents are between the ages of 30 and 50, while the least are those who are actively involved in recreational programs after the age of sixty. On the other hand, it is noticeable that in the ages of 30-40 and 51-60, females dominate, in relation to men. People aged 30-50 are the most productive people with their potentials, and for the efficiency of professional and private work, they need regular sports and recreational activities, which are most often found in well-organized recreational sports clubs (Sabic, 2018). It has been shown that older people (over 60 years of age) are interested in organized and professionally led group sports and recreational programs (Nesic, Srdic, Jovanovic & Vukajlovic, 2014), but program contents intended for this part of the population are much less represented in sports and recreational organizations. One of the reasons is probably the obvious lack of professional leaders who are trained to work with middle-aged and elderly people. It can be considered that there are several reasons that indicate a more conscientious attitude of women towards their health, among which the following usually dominates - they are more responsible for their health in middle age (in most cases women enter perimenopause period), and from 50-60 years they prepare for retirement; they consciously accept their age characteristics and better organize their free time for sports and recreational activities; that is, they can gain the knowledge that engaging in physical exercise/recreation is a useful means of preventing health problems). On the other hand, men of the same age are mostly spontaneous towards possible health problems (eg. the end of professional work and preparation for retirement are often depressing experiences, which has a negative approach in the organization of free

## DISKUSIJA

U pozitivnom smislu čovjek nastoji da realizuje sebe kroz određene raznovrsne aktivnosti (posmatračke, stvaralačke, aktivno rekreativne), koristeći sportsko-rekreativne i druge aktivnosti kompezatornog karaktera (Vučković & Mikalački, 1999). Kao preduslov za kvalitetniji život mnogi autori navode: pravilno fizičko vježbanje, kvalitetnu i odgovarajuću prehranu, održavanje doživljaja vlastitog identiteta, socijalizaciju, odbacivanje loših navika i stresnih situacija, pozitivan stav prema životu (Šaban, 2004; Sidman, 2001; Strunz, 2002; Mišigoj-Duraković i sar., 2000; Andrijašević, 2000). Veoma je mali broj savremenih istraživanja koja su se sprovodila u sportsko-rekreativnim klubovima i za svoju tematiku imala kvalitet sadržaja programa, odnosno identifikaciju zadovoljstva korisnika nakon njihovog upražnjavanja. Ovo istraživanje je pokazalo da je u pogledu starosne strukture identifikovano da se većina ispitanika nalazi u dobi od 30 do 50 godina, dok je najmanje onih koji se u rekreativne programe aktivno uključuju nakon šezdesete godine života. Sa druge strane uočljivo je da u uzrasnim dobima od 30-40 i od 51-60 godina dominiraju osobe ženskog pola, u odnosu na muškarce. Osobe od 30 – 50 godina su sa svojim potencijalima najproduktivnije osobe, a za efikasnost profesionalnog i privatnog posla neophodna im je redovna sportsko-rekreativna aktivnost kakvu najčešće nalaze u dobro organizovanim klubovima rekreativnog sporta (Šabić, 2018). Pokazalo se da su starije osobe (preko 60 godina) zainteresovane za organizavane i stručno vođene grupne sportsko-rekreativne programe (Nešić, Srdić, Jovanović & Vukajlović, 2014), ali su programski sadržaji namjenjeni ovom dijelu populacije znatno manje zastupljeni u sportsko-rekreativnim organizacijama. Jedan od razloga je vjerovatno i evidentan nedostatak stručnih voditelja koji su edukovani za rad sa osobama srednje i starije životne dobi. Može se smatrati da postoji više razloga koji ukazuju na savjesniji odnos žena prema svom zdravlju, među kojima najčešće dominira sljedeći - odgovornije su prema svom zdravlju u srednjoj životnoj dobi (u najvećem broju slučajeva žene ulaze u period perimenopauze), a od 50-60 godina pripremaju se za penzionisanje; svjesno prihvataju svoje starosne osobenosti i bolje organizuju slobodno vrijeme za sportsko-rekreativne aktivnosti; odnosno mogu da steknu spoznaju da je bavljenje fizičkim vježbanjem / rekreacijom korisno sredstavo prevencije zdravstvenih tegoba). Sa druge strane muškarci u istom životnom dobu uglavnom se stihijski odnose prema eventualnim zdravstvenim problemima (npr. završetak profesionalnog rada i pripreme za penzionisanje često depresivno doživljavaju, što ima negativan pristup u organizaciji slobodnog vreme-

time) (Balaban, M., et al. 2002, Durakovic, Z., et al., 2007). In that context, the findings of our research were implicitly reflected. The respondents rated their perception of perceived satisfaction with the quality of sports and recreational programs in the zone of high intensity of satisfaction they feel after the program, because of the group atmosphere during the program, attractiveness of the program, safety aspects during the program, organizational/management aspects of the practiced program, professional information that respondents received during the implementation of the program by the instructor and the environment in which the programs were implemented, which resulted in above-average quality of implemented program content, but also to indicate space for quality improvement (and potential satisfaction of users). In women, much more intense expression of satisfaction resulting from participation in sports and recreational programs was observed, and in group-led programs women identify with the instructor and thus are strongly motivated to achieve their best result, while men have an individual approach for sports and recreational activities, less they use the services of an instructor, but in their own way achieve their goals/satisfaction in improving their fitness status. By analyzing the collected data, it can be concluded that women, in the context of practicing sports and recreational content outdoors, use them more creatively to improve their fitness status by participating in various recreational sports programs. On the other hand, men are more oriented to improve the quality of life through social contacts that they achieve through the implementation of some of the outdoor programs offered by available sports and recreational organizations in the immediate living environment. In this research, an instrument was applied which was previously validated in similar research (Nesic, Nesic & Peric, 2016), and is primarily focused on intangible aspects of quality (perception of service quality and experiences of direct participants in programs).

## CONCLUSION

Proper understanding of what encourages people to participate in sports and recreational activities and programs (in the case of this research, these are outdoor activities) can be a significant factor which contributes to effective planning of certain outdoor recreational programs. Regular and quality implementation of recreational programs can have implications for the health of the immediate participants, given that it is known with certainty that physical activity improves the quality of life, both in young and older adults. In this context, it is necessary

na) (Balaban, M., sar. 2002, Duraković, Z., i sar. 2007). U tom kontekstu su se implicitno reflektovali i nalazi našeg istraživanja. Ispitanici su svoju ocjenu percipiranog zadovoljstva kvalitetom upražnjavanih sportsko-rekreativnih programa ocijenili u zoni visokog intenziteta zadovoljstva koje osjećaju nakon realizovanog programa, zbog grupne atmosfere tokom realizacije programa, atraktivnosti/privlačnosti samog programa, zbog bezbjednosnih aspekata tokom realizacije programa, organizacionih/menadžment-skih aspekata programa koje su upražnjavali, stručnih informacija koje su ispitanici dobijali tokom realizacije programa od strane instruktora/voditelja i ambijenta/okruženja u kojem su programi realizovani, što je rezultiralo nadprosječnom kvalitetom realizovanih programskih sadržaja, ali i da se ukaže prostor za unapređenje kvaliteta (time i potencijalnog zadovoljstva korisnika). Kod žena se uočilo znatno intenzivnije iskazivanje zadovoljstva koje proizilazi iz učešća u sportsko-rekreativnim programima, a u grupno vođenim programima se žene identifikuju sa voditeljem i time su snažno motivisane da postignu svoj najbolji rezultat, dok muškarci za sportsko-rekreativne aktivnosti imaju individualni pristup, manje koriste usluge voditelja, ali na svojstven način ostvaruju svoje ciljeve/zadovoljstvo u poboljšanju fitnes statusa. Analizom prikupljenih podataka može se zaključiti da žene, u kontekstu upražnjavanja sportsko-rekreativnih sadržaja na otvorenom, kreativnije koriste iste za poboljšavanje svog fitnes-statusa uključujući se u različite programe rekreativnog sporta. Sa druge strane muškarci su više orijentisani za unapređenje kvaliteta života kroz socijalne kontakte koje ostvaruju realizacijom nekog od progama na otvorenom koje im nude dostupne sportsko-rekreativne organizacije u bližem životnom okruženju. U ovom istraživanju je primijenjen instrument, koji je prethodno validiran u sličnim istraživanjima (Nešić, Nešić & Perić, 2016), a prioritarno je usmjeren na nematerijalne aspekte kvaliteta (percepciju kvaliteta usluga i doživljaje neposrednih učesnika u programima).

## ZAKLJUČAK

Pravilno razumijevanje onoga što podstiče ljude da učestvuju u sportsko-rekreativnim aktivnostima i programima (u slučaju ovog istraživanja to su aktivnosti na otvorenom) može biti značajan faktor koji doprinosi efikasnom planiranju određenih rekreativnih programa na otvorenom. Redovna i kvalitetna realizacija rekreativnih programa može imati implikacije na zdravlje neposrednih učesnika, obzirom da se sa sigurnošću zna da fizička aktivnost poboljšava kvalitet života, kako kod mladih tako i kod starijih odraslih osoba. U tom kontekstu ne-

that the choice of activities is consistent with the goal, age and gender of the immediate participants, which is a prerequisite for the program to result in positive effects. As people with increasing age generally stop playing sports or recreational activities, it is desirable to use various organizational and marketing activities, to encourage them to actively engage in some physical activity in middle and old age. Sports and recreational programs are an important segment of a healthy lifestyle with which one can take preventive action and improve health and work abilities. Sports and recreational programs are an important segment of a healthy lifestyle with which one can take preventive action and improve health and work abilities. Regular and systematic practice of various sports and recreational programs enables a positive impact on several dimensions of quality of life, such as physical, psychological, social, economic and spiritual wellness. In that context, the characteristics of sports and recreational programs that determine their quality must also be observed. This primarily refers to the organizational approach - that the programs offered should be treated as a specific sports service. Determinants of success/quality of each sports service are primarily exposed as a relationship which indicates the extent to which the service provided met the expectations of immediate users. Although the expectations of clients (users of sports and recreational programs) may be influenced by various factors (fashion trends, availability according to the character of the motor structure and individual goals of participants, etc.), creating the perception of a particular service (as well as its value) appears at the individual level of the users. Therefore, the constant identification of customer satisfaction is one of the important tasks of the management of a particular organization that creates and delivers the service (exercise program). In this way, information is obtained (knowledge created) about the most important factor of organizational success - a satisfied user/client (a satisfied user is only one who has fulfilled his/her expectations by using a specific sports and recreational program). Thus, the success and value (quality) of specific sports and recreational programs is essentially "measured" by the level of satisfaction of immediate users and by comparing the relationship between *what was expected* - *what was gained*. In this regard, program participants must be treated as an essential factor in quality evaluation. This research showed that respondents feel satisfaction after using recreational activities outdoors, that women much more intensely express satisfaction which arises from participating in these sports and recreational programs, and that respondents like the group atmosphere during the implementation of the program. All this indicates the need

ophodno je da odabir aktivnosti bude usklađen sa ciljem, uzrastom i polom neposrednih učesnika, što je preduslov da program rezultira pozitivnim efektima. Kako se ljudi sa povećanjem starosne dobi uglavnom prestaju baviti sportom ili rekreativnim aktivnostima, poželjno je različitim organizacijskim i marketinškim aktivnostima, podsticati ih na aktivno upražnjavanje neke fizičke aktivnosti u srednjoj i starijoj životnoj dobi. Sportsko-rekreativni programi su važan segment zdravog načina života sa kojima se može prevenirati i poboljšati zdravlje i radne sposobnosti. Redovno i sistematsko upražnjavanje različitih sportsko-rekreativnih programa omogućuje pozitivan uticaj na više demenzija kvaliteta života kao što su fizički, psihološki, socijalni, ekonomski i duhovni wellness. U tom kontekstu se moraju posmatrati i karakteristike sportsko-rekreativnih programa koje određuju njihov kvalitet. U prvom redu se to odnosi na organizacijski pristup - da se ponuđeni programi trebaju tretirati kao konkretna sportska usluga. Determinante uspjehnosti/kvaliteta svake sportske usluge se prvenstveno eksponiraju kao odnos koji ukazuje na informaciju u kojoj mjeri je isporučena usluga ispunila očekivanja neposrednih korisnika. Mada očekivanja klijenata (korisnika sportsko-rekreativnih programa) mogu biti pod uticajem različitih faktora (modni trendovi, dostupnost prema karakteru motoričke strukture i individualni ciljevi učesnika, i sl.), kreiranje percepcije konkretne usluge (kao i njene vrijednosti) pojavljuje se na individualnom nivou samih korisnika. Stoga je stalna identifikacija zadovoljstva korisnika jedan od bitnih zadataka menadžmenta konkretne organizacije koja kreira i isporučuje uslugu (program vježbanja). Na ovaj način se dobijaju informacije (stvarna spoznaja) o najznačajnijem faktoru organizacijske uspjehnosti - zadovoljnom korisniku/klijentu (zadovoljan korisnik je samo onaj koji je korišćenjem konkretnog sportsko-rekreativnog programa ispunio svoja očekivanja). Dakle, uspjehnost i vrijednost (kvalitet) konkretnih sportsko-rekreativnih programa suštinski se „mjeri“ nivoom zadovoljstva neposrednih korisnika i poređenjem na relaciji šta se očekivalo – šta se dobilo. U tom pogledu se učesnici programa moraju tretirati kao suštinski faktor evaluacije kvaliteta. Ovo istraživanje je pokazalo da ispitanici osjećaju zadovoljstvo nakon korišćenja rekreativnih aktivnosti na otvorenom, da žene mnogo intenzivnije izražavaju zadovoljstvo koje proizilazi iz učešća u ovim sportsko-rekreativnim programima i da se ispitanicima dopada grupna atmosfera tokom sprovođenja programa. Sve ovo ukazuje na potrebu sprovođenja istraživanja slične prirode kako bi se ljudima različitih starosnih grupa i polova omogućilo bavljenje sportom i rekreativnim

to conduct research of a similar nature in order to enable people of different ages and genders to engage in sports and recreational activities which would meet their needs for movement, socialization, appropriate level of program quality, and which do not require too much effort and have a positive effect on their health status.

**Announcemet**

*We announce that the authors have equally contributed to this paper.*

**Conflict of interests**

*There is no conflict of interests among the authors themselves.*

aktivnostima koje bi zadovoljile njihove potrebe za kretanjem, socijalizacijom, odgovarajućim nivoom kvaliteta programa, a koje ne zahtijevaju previše napora i imaju pozitivan efekat na njihov zdravstveni status.

**Izjava**

*Izjavljujemo da su autori podjednako doprineli radu.*

**Konflikt interesa**

*Između autora ne postoji interesni konflikt.*

**REFERENCES**

- Andrijašević M. (2000). Rekreacijom do zdravlja i ljepote, FFK, Zagreb. [in Croatian]
- Andrijašević, M. (2010). Vrste i obilježja profesionalnog rada. U M. Andrijašević (eds.) *Zbornik radova kineziološka rekreacija*, (pp. 89-112). Zagreb, RH: Kineziološki fakultet Sveučilišta u Zagrebu. [in Croatian]
- Balaban M., Stojisavljević D., Danojević D. (2002). Zdravlje i zdravstveni rizici stanovništva Republike Srpske, istraživačka studija. Grafid, Banjaluka. [in Serbian]
- Bartlett, M.S. (1954). A note on the multiplying factors for various chi square approximations. *Journal of the Royal Statistical Society*, 16 (Series B), 296-298.
- Demonja, D., Ružić, P. (2010). Ruralni turizam u Hrvatskoj s primjerima dobre prakse i europskim iskustvima, [Rural tourism in Croatia, with examples of good practice and European experience], Zagreb: Meridijani Samobor. [in Croatian]
- DeVellis, R.F. (2003). *Scale development: Theory and applications* (2nd ed.). Thousand Oaks, California: Sage.
- Doupona, M., i Petrović, K. (1997). Sport kao kakvoća življenja (Slučaj mladih). *Kineziologija*, 29(1), 21-24. [in Croatian]
- Duraković, Z. i sur. (2007). Gerijatrija – medicina starije dobi. Zagreb; C.T. – poslovne informacije d.o.o. [in Croatian]
- Findak, V. (1999). Metodika tjelesne i zdravstvene kulture. Priručnik za nastavnike tjelesne i zdravstvene kulture. Školska knjiga, Zagreb. [in Croatian]
- Fras, Z. (2002). Active life style of the child – long-term investment in health. In R. Pišot, V. Štemberger, F. Krpae & T. Filipeie (Eds.), *Proceedings book of 2nd International Science and Expert Symposium, Ljubljana, 2002, "A Child in Motion"* (pp. 20-28). Ljubljana, SLO: Faculty of Education, University of Ljubljana.
- Grant, S., Todd, K., Aitchison, T., Kelly, P., Stoddart, D. (2004). The Effects of a 12-week Group Exercise Programme on Physiological and Psychological Variables and Function in Overweight Women. *Public Health* 118(1): 31-42
- Furjan-Mandić, G. (2011). Grupni fitnes programi u kondicijskoj pripremi plesača. Conference: Međunarodni znanstveni interdisciplinarni simpozij, Hrvatska folklorna i etnografska baština u svjetlu dubrovačke, svjetske i turističke sadašnjosti, „FEB 2011“ At: Dubrovnik, Croatia Volume: 1. [in Croatian]
- Greydanas, D., & Patel, D. (2002). The female athlete before and beyond puberty. *Pediatr Clin N Am.*, 49, 553–580. doi: 10.1016/S0031-3955(02)00005-6
- Hagen, T. (2005). Sports medicine and the adolescent female. *J Pediatr Adolesc Gynecol*, 18, 9–15. doi: 10.1016/j.jpag.2004.11.005; PMID: 15749579
- Jajčević, Z. (1997.) *Kratka povijest tjelesnog vježbanja i sporta*. Zagreb, RH: Fakultet za fizičku kulturu u Zagrebu i Splitu. [in Croatian]
- Johnson, M., Sharpe, G. R. & Brown, P. I. (2007). Inspiratory muscle training improves cycling time-trial performance and anaerobic work capacity but not critical power. *European Journal of Applied Physiology*, 101:761-770.
- Josep, R., Royse, K., Benitez, T., & Pekmezi, D. (2014). Physical activity and quality of life among university students: exploring self-efficacy, self-esteem, and affect as potential mediators. *Quality Of Life Research* 23(2), 659-667
- Kaiser, H. (1970). A second generation Little Jify. *Psychometrika*, 35, 401-415.
- Kaiser, H. (1974). An index of factorial simplicity. *Psychometrika*, 39, 31-36.
- Kattel, R. (1966). The scree test for the number of factors. *Multivariate Behavioral Research*, 1(2), 245-276.
- Krželj, V. (2009). *Dijete i sport*. Klinika za dječje bolesti Kliničkog bolničkog centra Split. Split: Medicinski fakultet Sveučilišta u Splitu. Retrieved from [https://bib.irb.hr/datoteka/513581.Dijete\\_i\\_sport.doc](https://bib.irb.hr/datoteka/513581.Dijete_i_sport.doc). [in Croatian]
- Maher, J., Pincus, A., Ram, N., & Conroyd, D. (2015). Daily Physical Activity and Life Satisfaction across Adulthood. *Developmental Psychology*, 1407–1419.
- Martinčević, J. (2010). Provođenje slobodnog vremena i uključenost učenika u izvannastavne aktivnosti unutar škole. *Život i škola: časopis za teoriju i praksu odgoja i obrazovanja*, 24., 29-34. [in Croatian]
- McCord, P., Nichols, J., & Patterson, P. (1989). The effect of low impact dance training on aerobic capacity, submaximal heart and body composition of college-aged females. *Journal of Sports Medicine and Physical Fitness*, 29, 184-188.
- Melin, R., Fugl-Meyer, K., & Fugl-Meyer, A. (2003). Life satisfaction in 18- to 64-year-old Swedes: in relation to education, employment situation, health and physical activity. *Journal of Rehabilitation Medicine*, 84-90.
- Mišigoj-Duraković M. i sur. (2000). Tjelesno vježbanje u zdravlje, FFK, Zagreb. [in Croatian]
- Nešić, M., Nešić, B., & Perić, D. (2016). Valorizacija programa rekreativnog pešačenja namenjenog ženama srednje dobi. *TIMS Acta*, 10(1), 41-51. [in Serbian]



- Nešić, M., Srdić, V., Jovanović, M., Vukajlović, V. (2014). Aktivni životni stil kao činioc očuvanja zdravlja u savremenom životnom i radnom okruženju. U: Jovanović, M., Nićin, Đ. (ur.). *4. međunarodna naučna konferencija "Sportske nauke i zdravlje"*, Zbornik radova, Banja Luka: Panevropski univerzitet »Apeiron«, Fakultet sportskih nauka, str. 277-285. [in Serbian]
- O'Sullivan, M. (2004). Possibilities and pitfalls of a public health agenda form physical education. *Journal of teaching in physical education*, 23, 392-404.
- Pedišić, Ž. (2011). Tjelesna aktivnost i njena povezanost sa zdravljem i kvalitetom života u studentskoj populaciji [disertacija]. Zagreb: Kineziološki fakultet Sveučilišta u Zagrebu. [in Croatian]
- Pucci, G. C. M. F., Rech C. R., Fermio, R. C., & Reis, R. S. (2012). Association between physical activity and quality of life in adults, *Rev Saude Publica*, 46(1), 1-10.
- Sekulić, D., N. Rausavljević & N. Zenić (2003). Changes in motor and morphological measures of young women induced by the HI-LO and STEP aerobic dance programmes. *Kinesiology* 35-1, str: 48-58.
- Sekulić, D. i Metikoš, D. (2007). Uvod u osnove kineziološke transformacije. Split: Sveučilište u Splitu. Fakultet prirodoslovno-matematičkih znanosti i kineziologije. [in Croatian]
- Sidman D. (2001). Izvor dugovječnosti, Mozaik knjiga, Zagreb. [in Croatian]
- Stojiljković, S. Mandarić, S. Todorović, K., & Mitić, D. (2001). *Efekte primjene „omnibus“ aerobika na tjelesnu kompoziciju žena*. Beograd, RS: Fakultet za sport i fizičko vaspitanje. 796.1-055.2
- Strunz U. (2002). Forever young, HENA com, Zagreb. [in Croatian]
- Šaban S. (2004). Slobodni izbor, Publikum, Zagreb. [in Croatian]
- Šabić E. (2018). *Fizičke aktivnosti u stilovima života osoba srednje životne dobi u Republici Srpskoj*. Novi Sad, RS: Fakultet za sport i turizam (doktorska disertacija). [in Serbian]
- Tappe, K. M., & Burgeson, R. C. (2004). Physical education: a cornerstone for physically active lifestyles. *Journal of teaching in physical education*, 23, 281-299.
- Torbarina, Z. (2011). Sport – zaštitni čimbenik u suočavanju s rizničnim ponašanjima djece i mladih. *JAHN*, 2(3), 65–74.
- Trninić S. (2006). *Selekcija, priprema i vođenje košarkaša i momčadi*. Split, RH: Sveučilište u Splitu. [in Croatian]
- U.S. Department of Health and Human Services. (1996). *Physical activity and health: A report of the Surgeon General*. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion.
- Vučković, S. i Mikalački, M. (1999). Teorija i metodika rekreacije. Beograd. [in Serbian]
- Vuori, I. (2004). Physical inactivity is a cause and physical activity is a remedy for major public health problems. *Kineziologija*, 36 (2), 123-153.
- WHO. World Health Organisation, Retrieved from <http://www.who.int/en/>. Preuzeto 04.11.2020.
- WHO. World Health Organisation, Retrieved from <http://www.who.int/en/>. Preuzeto 04.11.2020.

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