

E-SPORT DURING THE COVID-19 PANDEMIC AND ITS NEGATIVE IMPACT ON CHILD HEALTH

E-SPORT TOKOM PANDEMIJE COVID-19 I NJEGOV NEGATIVAN UTICAJ NA ZDRAVLJE DECE

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Abstract: The Covid-19 virus pandemic has brought many problems, both in the functioning of everyday life and in various spheres of human health. Sport has always been considered a synonym for a healthy physical and mental state of people. The emergence of the phenomenon of e-sports has brought agility to a new market that cannot be defined by physical culture. The research will explain and prove the negative effects on children's health based on a survey whose results prove that most of the surveyed children engage in e-sports activities during a pandemic, rather than physical exercise, as well as other relevant research. Considering that sport in general and e-sport as a newly formed occupation, mostly children, have no other than terminological similarities, the research topic is subject to critical evaluation.

Keywords: Covid-19, physical culture, e-sports, health.

INTRODUCTION

In a study by Hamari and Sjoblom (2017), e-sports are defined as “a form of sport where the primary aspects of sport are facilitated by electronic systems, which in practical terms explain e-sport as competitive playing of video games with sports content”.

Physical Education Ilić, Mijatović (2008) explained through two terminological concept, “the word “physical”, which originates from the Greek and means a natural, sensual and carnal aspect and “culture”, which is a word derived from Latin and means in translation words : cultivating, perfecting, nurturing, which in today's human activities means development and perfecting, that is, the set of all the achievements of the human spirit that man has created in his socio-historical development”.

Also, Ilić, Mijatović (2008) defined the concept of physical culture as “part of general culture, the totality of

Sažetak: Pandemija Covid-19 virusa donela je mnoge probleme, kako u funkcionisanju svakodnevnog života, tako i u raznim sferama zdravlja ljudi. Sport je uvek važio za sinonim zdravog fizičkog i mentalnog stanja ljudi. Pojava fenomena e-sporta donela je agilnost jednom novom tržištu koje se ne može definisati fizičkom kulturom. U istraživanju će biti objašnjeni i dokazani negativni efekti po zdravlje dece na osnovu ankete čiji nam rezultati dokazuju da se većina ispitanice dece bavi e-sport aktivnostima tokom pandemije, a ne fizičkim vežbanjem, kao i na osnovu drugih relevantnih istraživanja. Obzirom da sport uopšteno i e-sport kao novonastala zanimacija, uglavnom dece, nemaju osim terminoloških sličnosti nijednu drugu, tema istraživanja podleže kritičkoj oceni.

Cljučne reči: Covid-19, fizička kultura, e-sport, zdravlje.

UVOD

U istraživanju Hamari i Sjoblom (2017), e-sport definišu kao “oblik sporta gde su primarni aspekti sporta olakšani elektronskim sistemima, koji u praktičnom smislu objašnjavaju e-sport kao takmičarsko igranje video igara sportskog sadržaja”.

Fizičku kulturu su Ilić, Mijatović (2008) objasnili kroz dva terminološka pojma, “reč “fizička” koja ima poreklo iz grčkog jezika i označava prirodni, čulni i telesni aspekt i “kultura” koja je reč poreklom iz latinskog jezika i označava u prevodu reči: gajenje, usavršavanje, negovanje, što u današnjim ljudskim aktivnostima označava razvitak i usavršavanje, odnosno skup svih tekovina ljudskog duha koje je čovek stvorio u svom društveno istorijskom razvoju”.

Takođe, Ilić, Mijatović (2008) definisali su pojam fizičke kulture kao “deo opšte kulture, sveukupnost ma-

material and spiritual achievements in this field, aimed at physical development and raising human health”.

The problem we are dealing with in this research indicates that e-sports, by its definition, does not contain aspects of the definition of physical culture, that it is harmful to the physical and mental health of children, compared to physical culture that develops positive psycho-physical aspects in children.

The Covid-19 virus pandemic has brought some new rules of living, distancing and anti-socialization that can have long-term consequences for people’s psyche and health.

While the current trend of stagnation of professional sports is due to non-holding of competitions and other sports events due to the pandemic, e-sports activities are represented in an increasing number.

The so-called e-sports industry has experienced the greatest success due to the pandemic, which is not a good choice for parents to develop and preserve the health of their children.

The development of so-called e-sports has experienced such prosperity that it has been favored over some traditional, old sports for centuries based on the basic principles of sports and physical culture, for the commercialization that brings huge money and benefits to children through sports video games, a false image of sport in general and health as well.

The use of video games significantly is associated with aggressive behavior, aggressive cognition, aggressive influence and physiological arousal as well as negative children developed empathy towards others. It was also found that playing games and aggression in real life were correlated (Hattings et al., 2009).

The questions that include this research are the following:

What is the nature in terms of the social context of playing sports games for young children?

What is the relationship between playing video games of a child aged 8 to 10 and the outcome of the child as a result (weakening of intellectual performance, weakening of health and changes in behavior)?

Due to the absence, the reduction of the intensity of traditional sports activities during the pandemic, the e-sports industry used the current emotional, social, motivational state of society, in order for this industry to seize cognitive benefits. Pre pandemic itself, the audience and participants of e-sports was 272 million, while due to the reason of the pandemic is expected to be 495 million by the end of 2020, which is the main indicator of the aforementioned claims (Center for Sport and Human Rights, 2020).

terijalnih i duhovnih dostignuća u ovoj oblasti, usmerenih fizičkom razvitku i podizanju zdravlja čoveka”.

Problem kojim se bavimo u ovom istraživanju ukazuje nam da e-sport po svojoj definiciji ne sadrži aspekte definicije fizičke kulture, da je po fizičko i mentalno zdravlje dece štetan, u odnosu na fizičku kulturu koja kod dece razvija u najvećoj mogućoj meri pozitivne psihofizičke aspekte.

Pandemija virusa Covid-19 donela je neka nova pravila življenja, distanciranja i asocijalizacije koja može imati dugoročne posledice po psihu i zdravlje ljudi.

Dok je trenutni trend stagnacije profesionalnog sporta zbog neodržavanja takmičenja i drugih sportskih priredbi usled pandemije, e-sport aktivnosti su zastupljene u sve većem broju.

Industrija takozvanog e-sporta doživela je najveći uspeh usled pandemije što ne predstavlja dobar izbor roditelja za razvoj i očuvanje zdravlja dece.

Razvoj takozvanog e-sporta je doživeo takav prosperitet, da je favorizovan u odnosu na neke tradicionalne, stare sportove nekoliko vekova koji su se zasnivali na osnovnim principima sporta i fizičke kulture, radi komercijalizacije koja putem sportskih video igara donosi ogroman novac i benefite, pruža deci lažnu sliku o sportu uopšteno i zdravlju takođe.

Upotreba video igara značajno je povezana sa agresivnim ponašanjem, agresivnom spoznajom, agresivnim uticajem i fiziološkim uzbuđenjem kao i sa negativno razvijenom empatijom dece prema drugima. Takođe je utvrđeno da su igranje igara i agresija u stvarnom životu bili u korelaciji (Hattings i dr., 2009).

Pitanja koja uključuju ovo istraživanje su sledeća:

Kakva je priroda u smislu društvenog konteksta igranja sportskih igara za malu decu?

Kakvi su odnosi između igranja video igara deteta od 8 do 10 godina i posledica po dete usled toga (slabljenje intelektualnih performansi, slabljenje zdravlja i promene u ponašanju)?

Usled odsutnosti, odnosno smanjenjem inteziteta aktivnosti tradicionalnog sporta tokom pandemije, e-sport industrija iskoristila je trenutno emocionalno, socijalno, motivaciono stanje društva, kako bi ova industrija prigrabila kognitivne benefite. Pre same pandemije, publike i učesnika e-sporta je bilo 272 miliona, dok se usled razloga pandemije očekuje da će biti 495 miliona do kraja 2020. godine što je osnovni pokazatelj pomenute tvrdnje (Center for Sport and Human Rights, 2020).

Zbog sve veće popularnosti e-sporta, naročito tokom pandemije, važno je utvrditi kakve negativne efekte

Due to the growing popularity of e-sports, especially during a pandemic, it is important to determine what negative effects this phenomenon causes in children, as well as what can affect them to be reduced or reduced.

RESEARCH METHODS

The research used a questionnaire on 120 school children aged 8-10, with 40 questionnaires per year, in order to confirm the problem posed by the argument that due to the Covid-19 virus pandemic, children were damaged by being measures engage in e-sports activities, playing video games, instead of physical exercise.

Using the results of the survey, this study should investigate the frequency of playing sports video games in children (ages 8 to 10), to assess the effects of changes in children's intellectual and physical abilities, problems and behavioral changes, and to predict long-term possible consequences.

Three inclusion criteria were used in the research:

The study dealt with playing video games as an exposure and thus assessed the extent to which and how to achieve the goal of reducing video game play during a pandemic and in general,

The study compares the effects of playing video games and engaging in physical culture,

The study was conducted as a controlled experiment.

RESULTS AND DISCUSSION

Based on the analysis of the reviewed questionnaires, the result can be seen in Table 1.

Table 1. Result of the number of children engaged in physical and e-sports activities

Age of children / Uzrast dece	He has physical activity / Ima fizičku aktivnost	E-sports activities / E-sport aktivnosti
8 years	25	15
9 years	17	23
10 years	8	32

The analysis of the survey questionnaire shows us that children as young as 8 have more physical activity in the form of recreational sports than e-sports activities.

9-year-olds spend more time indoors with e-sports activities, to then notice a drastic difference in 10-year-olds where most play video games.

According to the above, we can conclude that younger children, children as young as 8, are the most active in physical exercise activities, assuming that their parents have a greater educational influence on them. We notice that older children aged 9 and 10 spend time with

ovaj fenomen izaziva kod dece, kao i šta može uticati da se oni redukuju ili smanje.

METODE ISTRAŽIVANJA

U istraživanju je korišćen anketni upitnik na 120 školske dece godina između 8-10, sa po 40 upitnika po godištu, kako bi se potvrdio postavljen problem koji se odnosi na argumentaciju da su usled pandemije virusa Covid-19 deca oštećena time što se u velikoj meri bave e-sport aktivnostima, odnosno igranjem video igara, umesto fizičkim vežbanjem.

Koristeći rezultate ankete, ova studija treba da istraži učestalost igranja sportskih video igara kod dece (uzrasta od 8 do 10 godina), kako bi se ocenili efekti promena u intelektualnim i fizičkim sposobnostima dece, problemi i promene u ponašanju i da se predvide dugoročne eventualne posledice.

U istraživanju su korišćena tri kriterijuma inkluzije:

Studija se bavila igranjem video igara kao ekspozi-cijom i na taj način vršila procenu u kojoj meri i na koji način postići cilj smanjenja igranja video igara tokom pandemije i uopšte,

Studija upoređuje efekte igranja video igara i bav-ljenja fizičkom kulturom,

Studija je sprovedena kao kontrolisani eksperiment.

REZULTATI I DISKUSIJA

Na osnovu analize pregledanih upitnika, rezultat se može videti u Tabeli 1.

Tabela 1. Rezultat broja dece koja se bave fizičkom i e-sport aktivnostima

Analiza anketnog upitnika nam pokazuje da deca od 8 godina imaju više fizičke aktivnosti u vidu rekreativnog sporta, nego e-sport aktivnosti.

Deca od 9 godina više vremena provode u zatvorenom prostoru uz e-sport aktivnosti, da bi se zatim prime-tila drastična razlika kod dece od 10 godina gde se većina bavi video igrama.

Po prethodno navedenom možemo zaključiti da su mlađa deca, deca od 8 godina najaktivnija u aktivno-stima fizičkog vežbanja pod pretpostavkom da roditelji imaju veći vaspitni uticaj na njih. Primećujemo da starija

e-sports activities.

The e-sports industry, which is carrying out a huge media campaign during the virus pandemic due to financial benefits, does not pay attention to children who have a negative impact due to playing video games, which can produce a decline in mental and intellectual abilities, physical and social disabilities.

Restricting sports can therefore have “detrimental effects on young people and children, mental health and well-being, with periods of inactivity; isolation from sports teams; distance from the sports community; less qualified interactions with sports coaches; and lack of social activities shown to cause emotional distress and psychological disorders among young people and children” (Claudia & Reardon, 2017).

It is known that children who became infected with the Covid-19 virus, and are engaged in sports, reacted better even though they became infected with the virus due to a better general condition of the organism, while recovery was faster and better.

The propaganda used by the e-sports industry can very easily be characterized as violence against children and manipulation, because it has already been proven in academic circles that playing video games indoors can have long-term consequences.

The International Olympic Committee, as the highest governing body of the Olympic Movement, has given the following guidelines regarding the relationship between sports during a pandemic, but at no time issued a public statement suggesting that it is safer for children to play sports with protection measures. stands in the way of a profitable video game industry.

As stated in the statement, the instructions refer to the following: (International Olympic Committee, 2020)

It is necessary to store scientific advice, exchange of professional communications, connections and relevant information collected and provided by IOC members in research centers, academic institutions of sports medicine, national Olympic committees, international sports federations and among members of the general medical academic environment.

Dissemination of ongoing literature searches for relevant scientific papers to be added to the existing database.

Providing a platform for publishing an international series of cases to study the recovery of athletes from COVID-19.

From all the above, which refers to the instructions of the International Olympic Committee, we can conclude that they appeal to the academic community, pro-

deca od 9 i 10 godina provode vreme uz e-sport aktivnosti.

E-sport industrija koja zbog finansijskih benefita vrši ogromnu medijsku kampanju u toku pandemije virusa, ne obazire se na decu koja usled igranja video igara imaju negativan uticaj koji može proizvesti pad mentalnih i intelektualnih sposobnosti deteta, fizičke i socijalne nedostatke.

Ograničenje bavljenja sportom stoga može imati “štetan uticaj na mlade ljude i decu, mentalno zdravlje i blagostanje, sa periodima neaktivnosti; izolacije od sportskih timova; udaljenost od sportske zajednice; manje kvalifikovane interakcije sa sportskim trenerima; i nedostatak socijalnih aktivnosti pokazalo je da izaziva emocionalnu uznemirenost i psihološke poremećaje kod mladih i dece” (Claudia & Reardon, 2017).

Poznato je da su deca koja su se inficirala virusom Covid-19, a bave se sportom, bolje reagovala čak iako su se inficirala virusom zbog bolje opšteg stanja organizma, pri čemu je oporavak bio brži i bolji.

Propaganda koju koristi e-sport industrija, veoma lako se može okarakterisati kao nasilje nad decom i manipulacija jer je u akademskim krugovima već dokazano da igranje video igara u zatvorenom prostoru može imati dugoročne negativne posledice.

Međunarodni olimpijski komitet kao najviši organ upravljanja olimpijskim pokretom dao je smernice vezane za odnos sporta za vreme pandemije, ali nijednog trenutka nije izdao javno saopštenje u kom sugerise da je za decu bezbednije da se bave sportom uz mere zaštite, pri čemu kršeći principe olimpizma ne staje na put profitabilnoj industriji video igara.

Kako je navedeno u saopštenju, smernice se odnose na sledeće: (International Olympic Committee, 2020).

Neophodno je skladištiti naučne savete, potrebna je razmena stručnih komunikacija, veza i relevantnih informacija koje prikupljaju i pružaju članovi MOK-a u istraživačkim centrima, akademskim institucijama sportske medicine, nacionalnim olimpijskim komitetima, međunarodnim sportskim federacijama i među članovima opšte medicinske akademske sredine.

Širenje tekućih pretraga literature za relevantnim naučnim radovima koji bi se dodali u postojeću bazu podataka.

Obezbeđenje platforme za objavljivanje međunarodnih serija slučajeva za proučavanje oporavka sportista od COVID-19.

Po svemu navedenom što se odnosi na smernice Međunarodnog olimpijskog komiteta, možemo zaključiti da upućuju apel akademskoj zajednici, profesionalnim

fessional organizations and athletes, but not to the wider community and parents, in order to get the impression of the importance of their children's physical exercise during a pandemic. On the one hand, there is a strong marketing campaign of the e-sports industry, and on the other hand, there is no activity of sports organizations that would promote sports, and not playing video games.

It should be borne in mind that there are video games that are cooperative in nature and games that are competitive. Many games designed for multiple players have the modes of cooperative games in which players are encouraged to work together with others. Numerous studies support the hypothesis that cooperative gaming can promote pro-social behavior and can curb aggressive behaviors. Unlike cooperative gaming, researchers also investigated whether competitive gaming promotes aggression and discourages pro-social behavior. Using experimental and longitudinal designs, these studies indicated that both short-term and long-term, competitive gaming may be a greater predictor of aggressive outcomes than violence itself. However, cooperative and competitive game play has yet to be explored in the way these forms of play most commonly occur in the real world, in tandem. This is because many competitive video games not only allow for cooperative modes, but the competition in these games is often team-based. However, no longitudinal study has so far investigated the impact of both cooperative and competitive video game play (Lobel, Engels, Stone, Burk, & Granic, 2017).

The content of sports video games is diverse, and the psychological approach of a child while playing differs significantly in relation to the time of engaging in physical activity. During sports activities, the child in most cases feels empathy towards the opposing player. The child often does not feel responsible while playing games and due to curiosity, he can express aggression within the game he manages, knowing that he will not be responsible for it and really hurt the other person, especially if it is about martial arts. However, if a child plays a video game for a long time in which it is possible to express aggression, especially if we look at the age group surveyed in the survey results, we may find that the psychological effect on the child is such that video game behavior can be transferred to the real environment.

The problem of playing video games in children, in addition to psychological ones, is largely related to the physical health of children, namely: Anxiety, obesity, sleep disorders, stress, vision problems, muscular problems and epileptic seizures.

And the branching of video games related to vision

organizacijama i sportistima, ali ne i široj društvenoj zajednici i roditeljima, kako bi stekli utisak važnosti fizičkog vežbanja njihove dece tokom pandemije. Sa jedne strane postoji jaka marketinška kampanja e-sport industrije, a sa druge ne postoji aktivnost sportskih organizacija koje bi promovisale sport, a ne igranje video igara.

Treba imati u vidu da postoje video igre koje su kooperativnog karaktera i igre koje su takmičarskog. Mnoge igre dizajnirane za više igrača imaju režime kooperativnih igara u kojima se igrači ohrabruju da rade zajedno sa drugima. Brojne studije podržavaju hipotezu da kooperativno igranje igara može da promoviše prosocijalno ponašanje i može obuzdati agresivna ponašanja. Za razliku od kooperativnog igranja kompjuterskih igara, istraživači su takođe istraživali da li konkurentno igranje igara promoviše agresiju i obeshrabruje prosocijalno ponašanje. Koristeći eksperimentalne i longitudinalne dizajne, ove studije su ukazale da i kratkoročno i dugoročno, takmičarsko igranje može biti veći predviđač agresivnih ishoda od samog nasilja. Međutim, kooperativno i takmičarsko igranje igara tek treba da se istraži na način na koji se ovi oblici igre najčešće dešavaju u stvarnom svetu, u tandemu. To je zato što mnoge takmičarske video igre ne samo da dozvoljavaju kooperativne režime, već je konkurencija u ovim igrama često zasnovana na timu. Međutim, nijedna do sada longitudinalna studija nije istovremeno istraživala uticaj i kooperativnog i takmičarskog igranja video igara (Lobel, Engels, Stone, Burk, & Granic, 2017).

Sadržaj sportskih video igara je raznolik, a psihološki pristup deteta dok igra se znatno razlikuje u odnosu na vreme bavljenja fizičkom aktivnošću. Dete za vreme sportske aktivnosti u najvećem broju slučajeva oseća empatiju prema protivničkom igraču. Dete često za vreme igranja igara ne oseća odgovornost i zbog radoznalosti može da u okviru igrice kojom upravlja, iskaze agresivnost znajući da za to neće odgovarati i stvarno povrediti drugu osobu, posebno ukoliko se radi o boričkim veštinama. Međutim, ukoliko dete duže vreme igra video igru u kojoj je moguće izraziti agresivnost, posebno ukoliko se osvrnemo na starosnu ispitanu grupu u rezultatima ankete, možemo doći do saznanja da psihološki efekat na dete bude takav da ponašanje iz video igre može da prenese u stvarno okruženje.

Problem igranja video igara kod dece, pored psiholoških se u velikoj meri odnose na fizičko zdravlje dece i to: Anksioznost, gojaznost, poremećaj spavanja, stres, problemi sa vidom, mišićni problemi i epileptični napadi.

Igranje video igara povezano sa problemima sma-

problems in children. Extensive and fixed viewing of the screen causes a reaction of the cornea and pupil that are not biologically equipped for chronic viewing from electronic devices. Stressing the visual system from frequent use of video games causes headaches, dizziness, and in some cases, nausea and vomiting. Since children do not have fully formed muscles, due to sitting and insufficient movement for a long period of time, children may experience pain in the arms and joints up to the back and neck. As stated in the research of the mentioned author, in addition to the previously mentioned negative effects, a new term "Play-station finger" was established, which is characterized by numbness and blistering caused by friction between the thumb and the joystick. Using dermoscopy, dermatologists have discovered bleeding and oiholysis in children who play video games with great intensity. There is a high possibility of tendon injury caused by sudden movements of children while holding the joystick, then injuries and spinal deformities due to improper sitting (Ayenigbara, 2018a, Vission issues, para. 7).

And the video game industry is consistently directly linked to obesity. This aspect can be related to the fact that children who play e-sports are physically inactive, while playing video games they often have a meal and mostly snacks that are most practical at the time, but they are certainly not reduced to a healthy diet. Health workers concerns about epileptic seizures began in the 1980s. The first medically documented case was recorded in 1993, when it was announced that in the United States, a boy suffocated by his own vomiting during an attack caused by playing video games. According to the author, in 1994 it was noted that video games cause attacks only in predisposed people, with advice that such people can greatly reduce the risk of attack by being 3 meters or more away from the TV or wearing sunglasses (Ayenigbara, 2018b, Musculoskeletal & Obesity, para. 8).

CONCLUSION

E-sports and playing video games have become a modern trend that generations of adults are turning to in the age of modern technologies, and in the lack of free time of parents who can dedicate themselves to their children. In today's time when a lot is available, when sport is no longer a priority for children or parents, it is necessary to create strategies at the national level that would limit e-sports organizations, with previously argued research by government agencies to protect mental and physical development of children.

Effective applicable strategies could be reflected in the following:

njenja vida kod dece. Opsežno i fiksno gledanje u ekran izaziva reakciju rožnjače i zenice koje nisu biološki opremljene za hronično gledanje sa elektronskih uređaja. Naprezanje vizuelnog sistema od česte upotrebe video igara izaziva glavobolju, vrtoglavicu, a u nekim slučajevima i mučninu i povraćanje. Obzirom da deca nemaju potpuno formiranu muskulaturu, usled sedenja i nedovoljnog pomeranja duži vremenski period, kod dece se mogu javiti bolovi u rukama i zglobovima do leđa i vrata. Kako je navedeno u istraživanju pomenutog autora, pored prethodno navedenih negativnih efekata, ustanovljen je i novi termin "Playstation finger" koga odlikuje utrnulost i žulj koji nastaje trenjem između palca i džojstika. Koristeći dermoskopiju, kod dece koja u velikom intenzitetu igraju video igre, dermatolozi su otkrili krvarenje i oliholizu. Postoji velika mogućnost povrede tetiva izazvane naglim pokretima dece tokom držanja džojstika, zatim povreda i deformiteta kičme usled nepravilnog sedenja (Ayenigbara, 2018a, Vission issues, para. 7).

Igranje video igara je dosledno direktno povezano sa gojaznošću. Taj aspekt se može povezati sa činjenicom da su deca koja se bave e-sportom fizički neaktivna, tokom igranja video igara često imaju obrok i uglavnom grickalice koje su najpraktičnije u tom trenutku, ali se svakako ne svode na zdravu ishranu. Zabrinutost zdravstvenih radnika po pitanju epileptičnih napada počela je osamdesetih godina. Prvi medicinski dokumentovani slučaj zabeležen je 1993. godine kada je objavljeno da se u Sjedinjenim Američkim Državama dečak ugušio sopstvenom povraćkom tokom napada izazvanim igranjem video igara. Kako autor navodi, godine 1994. zabeleženo je da video igre izazivaju napade samo kod predisponiranih ljudi, uz savete da takve osobe mogu da u velikoj meri smanje rizik od napada tako što će biti udaljeni od televizora 3 ili više metara ili da nose zaštitne naočare za sunce. (Ayenigbara, 2018b, Musculoskeletal & Obesity, para. 8).

ZAKLJUČAK

E-sport i igranje video igara postao je savremeni trend kom se okreću generacije odrasle u vreme savremenih tehnologija, a u manjku slobodnog vremena roditelja koji mogu da se posvete svojoj deci. U današnjem vremenu kada je dosta toga dostupno, kada sport vise nije prioritet ni deci ni roditeljima, neophodno je napraviti strategije na nacionalnom nivou koji bi ograničio E-sport organizacije, uz prethodno argumentovano sprovedeno istraživanje državnih organa kako bi se na taj način zaštitio mentalni i fizički razvoj dece.

Efikasne primenjive strategije mogle bi da se ogledaju u sledećem:

1. Educating children about the consequences of long-term playing video games on their mental and physical health
2. A program in which psychologists would participate and which would guide children within preschool and school institutions and teach them how to control their instinct to play games
3. Interactive communication between psychologists and children with an identified problem caused by playing video games and helping to build identity, self-esteem of the child and promote emotional intelligence outside the virtual world
4. Developing a new lifestyle for the child with the direct participation of the parents
5. Educating parents about the harmfulness of playing e-sports, ie playing video games.

Through the research, based on the survey and reference other research on the topic of this paper, the negative impact of e-sports as a phenomenological phenomenon for children's health, their psychological and physical development has been proven. A proposal for solving the set problem and instruments that can be used to solve it are given.

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1. Edukacija dece o posledicama dugoročnog igranja video igara po njihovo mentalno i fizičko zdravlje
2. Program u kome bi učestvovali psiholozi i koji bi u okviru predškolskih i školskih ustanova usmeravali decu i učili kako da kontrolišu svoj nagon za igranjem igara
3. Interakcijska komunikacija psihologa i dece sa utvrđenim problemom izazvanim igranjem video igara i pomoć u izgradnji identiteta, samopoštovanja deteta i unapređenja emocionalne inteligencije izvan virtualnog sveta
4. Razvijanje novog stila života deteta uz obavenu direktno učestvovanje roditelja
5. Edukovanje roditelja o štetnosti bavljenja e-sportom, odnosno igranja video igara.

Kroz istraživanje je na osnovu ankete i referentnih drugih istraživanja oblasti teme ovog rada, dokazan negativan uticaj e-sporta kao fenomenološke pojave za zdravlje dece, njihov psihološki i fizički razvoj. Dat je predlog rešavanja postavljenog problema i instrumenti koji se mogu iskoristiti za rešavanje istog.

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