

## Socio-ecological model in sports marketing

## Socio-ekološki model u sportskom marketingu

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**Abstract:** The socio-ecological framework is a very important aspect in the development of health at several levels. In this work, the same was used in order to determine its interdependence with the effective reduction of cases of death in sports. In the research, available relevant literature was used, which examined the mentioned interdependence. The research subject of this paper deals with determining the influencing factors on the health of athletes, while the goal of the research is to determine the most effective way to raise health awareness. Marketing, sport, ecology and sociology are highlighted as the most important segments in the work. Based on the data established during the research, we can conclude that by taking advantage of the opportunities provided by each of these segments, the health of athletes can be effectively improved and the number of deaths can be reduced.

**Keywords:** sport, marketing, sociology, health, ecology.

**Sažetak:** Socio-ekološki okvir čini veoma značajan aspekt u razvoju zdravlja na nekoliko nivoa. U ovom radu upotrebljen je isti kako bi se utvrdila njegova međuzavisnost sa efikasnim smanjenjem broja slučajeva smrtnog ishoda u sportu. U istraživanju je korišćena dostupna relevantna literatura kojom je ispitana navedena međuzavisnost. Predmet istraživanja ovog rada bavi se utvrđivanjem uticajnih faktora na zdravlje sportista, dok je cilj istraživanja utvrđivanje najefikasnijeg načina za podizanje svesti o zdravlju. U radu se kao najvažniji segmenti ističu marketing, sport, ekologija i sociologija. Na osnovu utvrđenih podataka tokom istraživanja možemo zaključiti da iskorišćavanjem mogućnosti koji pruža svaki od ovih segmenata može se na efikasan način poboljšati zdravlje sportista i smanjiti broj smrtnih ishoda.

**Ključne reči:** sport, marketing, sociologija, zdravlje, ekologija.

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### INTRODUCTION

The socio-ecological framework is a multilevel conceptualization of health that includes intrapersonal, interpersonal, organizational, environmental, and public policy factors. The socio-ecological framework emphasizes multiple levels of influence and supports the idea that behaviors influence and are influenced by different contexts. Currently, the understanding and application of the socio-ecological framework by the sports medicine community is

limited. In this research, we use a socio-ecological framework to describe potential pathways for interventions to reduce sports-related deaths among adolescents, as well as the impact of sports marketing on raising awareness of the importance of environmental protection.

Participation in sports has many potential benefits, such as improved physical fitness and general health status. The interdependence of the socio-ecological approach and marketing should be sup-

ported by the integration of two perspectives on justice: transcendental and comparative. The idealistic, transcendental point of view depicts what an unblemished, perfectly just society should look like; a more practical, comparative standpoint lists and compares different types or cases of injustice.

The subject of this research is the analysis of available relevant literature on the basis of which the interdependence between the socio-ecological framework and marketing in sports, as well as their impact on health, can be examined.

The aim of the research of this work is to indicate the importance of raising awareness about health and to determine the most effective way to implement it.

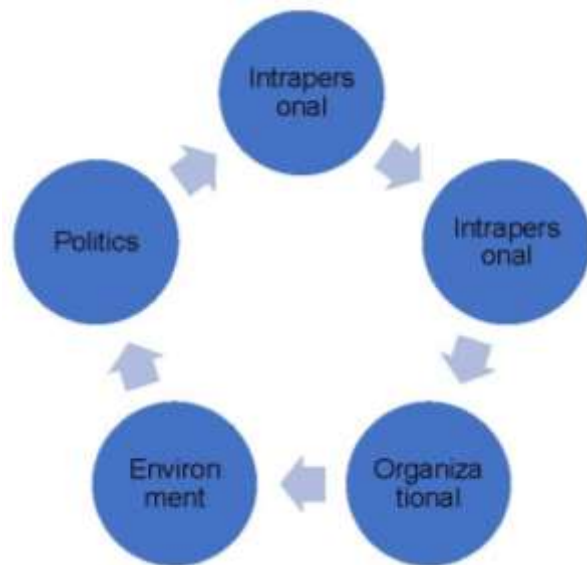
## 1. MATERIALS AND METHODS

For the purposes of the research work, a study was conducted concerning the interdependence of the socio-ecological framework and marketing applied in sports. Also, based on the available relevant literature, we tried to determine the most effective way to raise awareness about health care. In the results of the research, we tried to determine what forms the basis of the socio-ecological framework and what the connection with marketing in sports is. In the research, we used the method of analysis, synthesis and comparative method.

## 2. RESULTS AND DISCUSSION

The public health literature has often focused on theories, frameworks, and models to facilitate adoption of interventions for traditional public health problems (eg, alcohol abuse, food safety, human immunodeficiency virus, heart disease) (Warburton et al., 2006). However, these models are not usually applied to the field of sports medicine. I propose that a socio-ecological framework be used as a guide for organizing and summarizing the evidence regarding the various risk factors associated with sports-related death and the determinants of potentially promising interventions. The socioecological framework was first proposed by Bronfenbrenner in the 1970s as an ecological systems theory, and later defined by McLeroy et al. as a framework for promoting health-related behavior change. The framework usually includes 5 levels of influence:

- (1) intrapersonal (e.g., individual, athlete),
- (2) interpersonal (e.g., athletic trainer, coach, parent, sports director),
- (3) organizational (e.g., community, school),
- (4) environment (e.g., cultural norms, physical environment), and
- (5) politics (e.g., state high school association, local, state, federal legislation).



Picture 1 – Five levels of influence  
Source: Authors

Despite the utility of a socioecological framework as a possible basis for critically evaluating and utilizing a range of factors associated with sports-related injuries, it has not often been applied to the adoption of sports medicine intervention strategies. Failure to use a structure to organize and implement sports-related death evidence for end-users prevents a systematic approach to improving interventions and promoting the adoption of best practices. The purpose of our article was to highlight ways that high school ATs can use knowledge of the socio-ecological framework to improve uptake of interventions to reduce sport-related fatalities. The socio-ecological model can and should be applied to the prevention of all potential causes of death in sports.

### *Intrapersonal level*

The intrapersonal level of the socio-ecological framework considers the physical and cognitive characteristics of the athlete, as well as his or her previous experiences. Although this level is based on the individual at risk, it is strongly influenced by all other levels of the athlete. Physical characteristics include an athlete's gender, age, genetics, and previous medical conditions, among other intrinsic factors (Schneider et al., 2017). Cognitive characteristics may consist of relevant knowledge and attitudes about factors related to sports-related injuries and illnesses, such as risk- and prevention-related behaviors. Factors related to the intrapersonal level are probably the product of interpersonal interactions and broader socio-cultural influences. For example, factors specific to athletes that may lead to an increased risk for EHS include a

history of heat illness, low levels of physical fitness, lack of sleep, increased body weight, dehydration, and inadequate water intake. Therefore, athletes should be aware of their own level of risk for adverse health outcomes in order to alert those at the interpersonal level who supervise and provide care.

#### *Interpersonal level*

The interpersonal level of the socio-ecological framework includes the community that surrounds the athlete and can influence his or her safety, such as AT, sports directors, coaches, parents and fans. These external actors influence the safety of athletes on an interpersonal level through their interactions with risky athletes. For example, if a coach believes that lack of water intake is indicative of physical and mental endurance, the athlete may be at increased risk of EHS solely because of that coach's attitudes and resulting behavior. In addition, external actors can influence the attitudes and behaviors of athletes. The theory of normative social behavior proposes that descriptive norms (i.e., perceptions of what other people do) control injunctive norms (i.e., perceptions of what you are expected to do), as well as expected outcome expectations. Such norms of behavior have been discussed in the context of other injuries, such as concussion: the willingness of athletes to report a concussion can be influenced by the thoughts, attitudes and perceptions of those around them who influence their decisions. In contrast, the EHS literature offers little discussion of how stakeholders may influence athletes' intentions to disclose EHS-related symptoms. Factors that hinder these intentions must be addressed, as EHS requires immediate care to reduce its severity.

The level of comfort and skill of the AT can also affect the level of care the athlete receives due to the injury. Mazerolle et al. found that less than 20% of AT described rectal thermometry as their standard method of diagnosing EHS, showing a low level of compliance with best practice. Therefore, barriers, whether perceived or real, that prevent ATs from using best practices can directly influence whether an athlete is likely to survive a catastrophic event. Designing interventions that relate to multiple stakeholders, not just athletes, is imperative for improving the effectiveness of interventions.

#### *Organizational factors*

The organizational level implies structured communities to which groups of individuals belong, such as a school or other sports institution. In the sense of this article, the organizational level is the high school itself, as an entity that supervises and thus

directly affects at-risk athletes. Formal guidelines, such as written procedures, or informal guidelines, such as environmental culture, influence the behavior of these organizations (Mueller et al., 2015). Both formal and informal policies and procedures help shape cultural norms within these organizations and establish expectations about the consequences of engaging in specific behaviors. This in turn affects individual behavior and interpersonal interactions. For example, fire drills, active shooter drills, and bomb drills, along with various other precautions taken in high schools, directly reflect policy mandates and current perceptions of safety in the educational environment. The same policy mandates for school safety can be extended to school athletics, potentially influencing stakeholders to adopt sport safety standards to reduce the risk of sport-related death. However, although political mandates may occur at higher levels of influence, such as through state or national legislation, an individual organization may not "agree" to such mandates. For example, if a state high school athletic association mandates a heat policy, but no specific guidelines are provided, the school could choose not to follow the mandate, not implement the created policy, or create or implement a policy that does not follow best practices.

#### *Environmental factors*

The environmental level can be described as the broader context surrounding the athlete, including the cultural and physical environment. In the context of this article, the environmental level refers to the social, cultural and physical environment (Rimal, Real, 2016). Cultural values or norms refer to perceived standards of acceptable attitudes and behavior within networks. For example, athletes who engage in wrestling may believe that competing in a dehydrated state is part of the sport and may not recognize the health risk it poses. Education and advocacy efforts have been used in an attempt to change this perception, and although the effects have been largely positive, uncertain cultural norms that reflect inaccurate information persist in some settings.

When the socio-ecological framework was redefined by McLeroy et al. in 1988, the environmental level included the physical environment, such as access to parks and transportation. In sports medicine, the environmental level can also refer to the actual environment and field conditions, and interventions can be designed to directly address these factors (e.g., cancelling activities during extreme weather conditions, ensuring safe playing conditions). For example, as wet bulb temperature

increases, the risk for EHS appears to increase (Borus, Laffel, 2010). Knowing best practice for handling environmental hazards, ATs at the interpersonal level must use supported evidence to protect their athletes from unsafe situations. It should be noted that subjective risk assessments of environmental hazards can influence the behavior of individuals, even when they are highly motivated to follow the most well-known precautions (e.g., a false sense of security).

#### *Policy factors*

Finally, policies build the outermost layer of the framework. Policies are enacted to protect athletes and may be developed through a state high school association or state or national legislation. In theory, policies should help improve the adoption and implementation of best practices needed to reduce the risk of sports-related deaths (Kajankova et al., 2017). For the efficient implementation of the policy, all levels of the socio-ecological framework should be taken into account in the adoption and implementation strategy. Policies can also be used to directly set standards of practice (Walsh et al., 2013). Policies to prevent or manage catastrophic injuries, such as emergency preparedness plans or heat acclimatization to prevent EHS, are sorely lacking.

Marketing in sports can be seen as one of the main, and now also as a strategic direction of sports organizations, in the realization of sports goals, programs and tasks. Marketing in sports represents the business function of a sports organization, that is, the economic process that connects the production of sports products, services and capital and consumption in the field of sports in the most efficient way.

Every social and cultural phenomenon, and in that sense also sports activity, has a constant need for moral, organizational and financial support from society. One of the phenomena of sports at the beginning of the 21st century is the emergence of serious business. In this business, the central place is occupied by sports protagonists: athletes, coaches, managers, sports organizations, organizers of sports events, as unique promoters of corporate business, i.e. sponsors, primarily through the sports auditorium, which they rule (Adams et al., 2017). At the same time, sports protagonists develop their own business, in which they identify their products and target market.

The development of sports and the recognition of the potential market in the sports auditorium have

influenced the strategic decisions of many companies that produce sports equipment and props. They develop their production in two ways: based on the needs of modern sports in achieving optimal sports results, developing modern technologies and perfecting their products; and based on the needs of the broad market, which is located in the sports auditorium (Cooper et al., 2016). This means meeting the needs of all those who participate in sports activities in any way (professional and amateur athletes, recreational players and those who identify with sports stars).

The social significance of sports stems from people's natural need for sports activities, in which they are directed towards the perfection of mind and body. Sports interests play a very important communicative role in society, in the political and, what is important for marketing in sports, in the economic sphere of human activities. Other, no less important interests of sport lie in the sphere of work, because for many, sport is a profession. To a significant extent, modern sports represent a successful and satisfying business for many. He is always the subject of interest of the broadest public, and is exposed to the constant focus of mass media.

In practice, contemporary sport encountered two orthodox ways of solving the financial problems of sports organizations. One of them referred to countries where the state directly, centrally subsidized and allocated funds to sports (Mihalik et al., 2010). The second way referred to countries with a free economy and a free market, where the problem of financing sports was solved mainly by introducing a marketing function in the management of sports organizations, regardless of their status, professional or amateur, profit or non-profit.



Picture 2 – The role of marketing in sport  
Source: Authors

Marketing in sports can be seen as one of the main, and now extremely necessary, defining the strategic direction of sports organizations, in the realization of sports goals, programs and tasks. In the current circumstances, sport, in order to be realized as a creation, is looking for ways out of the vicious circle, in which missing funds decisively determine the quantity and quality of sports creativity. The mission of marketing in sports is to continuously obtain funds and seek financial support for the realization of own sports programs (Gamst, 1991).

On the one hand, profit and its multiplication, in order to achieve sports development, is one of the important moments of introducing a marketing strategy in sports, on the way to achieving the main sports goal: achieving optimal sports results, and thus improving the appropriate human qualities (DiClemente et al., 2007).

Sport, given its social and economic role and its great publicity, is extremely suitable for economic activities. Therefore, entrepreneurship in sports has wide applications due to the possibility of animation, in different ways, of large masses of people. The development of a number of activities, which are in any way related to sports or are in sports, as well as the improvement of people's conditions and lifestyle, favored the active participation of an increasing number of people in sports activities as active or passive participants (Kumar et al., 2012).

The socio-ecological approach to development combines ecological and social justice (Sapien, Allen, 2001). It "calls attention to the ways in which social and ecological systems are intertwined in ways that currently cause ecological devastation and social inequality, but which could be transformed along more sustainable and socially just lines" (Kirby, 2007).

The interdependence between sociology, ecology, sports and marketing is growing more and more

with the development of civilization and technological achievements. Any further development strategy must rely on the opportunities provided by, for example, marketing in sports, and use the benefits it provides in order to improve a certain branch of the economy such as ecology or the prevention of injuries in sports.



Picture 3 – Interdependent influencing factors  
Source: Authors

First, any development philosophy or strategy must be rooted in a fundamental commitment to truly sustainable development, which protects, preserves and nurtures the natural environment (Kerr et al., 2014). Protection of the natural environment can be ensured by raising awareness of the importance of health care (Ostojic et al., 2021). Raising awareness can be realized in different ways, one of them is through fast-growing economic branches such as sports.



Picture 4 – Chain of influence on health awareness  
Source: Authors

Second, the socio-ecological approach addresses environmental and social inequalities and injustices. Globally, the poor are the most threatened by climate and other environmental changes (e.g., urban pollution, water shortages, land desertification, extr-

eme weather conditions), and they are the least responsible for these environmental changes (Register-Mihalik et al., 2018). However, they need economic development the most, in order to get out of poverty, and they are most threatened by green policies that

eliminate jobs or growth. Therefore, we need to address sustainable development goals that focus on the environment and inequality.

## CONCLUSION

In this paper, the interdependence of the protection of the natural environment and the developed economic sector, as well as the benefits provided by marketing activities, were investigated. Namely, we established that the socio-ecological approach must take into account deep social divisions of wealth, power and recognition that operate along local and national, as well as transnational lines. It is essential to recognize the interdependence of ecological and social forms of injustice in relation to development, therefore, it is essential to address sustainable development goals that are centered on the environment, social inequality and social exclusion.

A socio-ecological approach offers rich opportunities for critical, participatory research that is socially and ecologically engaged. The final observation here concerns the need to pay attention to the opportunities offered by marketing. Guided by the subject and goal of the research, we can conclude that for the development of a society, health care is very important from the point of view of environmental protection. The socio-ecological approach should use the possibilities of sports marketing. The use of their interconnection reduces the possibility of sports injuries and injuries with a fatal outcome. Furthermore, we notice that the influence of sports marketing in the modern world is increasing and it offers a wide range of possibilities. By combining the possibilities offered by the aforementioned influential factors, it is possible to effectively reduce the number of sports injuries and deaths.

Finally, acting within the socio-ecological framework with the application of the advantages offered by sports marketing, social struggles and ecological interests can be successfully realized through the construction of effective interventions to reduce sports-related deaths.

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