INTRODUCTION

Fencing is a multidimensional part of our culture. In its utilitarian dimension it has been known since time immemorial. Over time fencing duels gave way to recreational, competitive and stage fencing. The development of sports requires the rationalization of training and more effective preparation participants and in the sphere of fencing, this concerns all participants, be they male or female, foil, epee or saber fencers.

The study areas covered by the present publication are not only related to fencing but also border on other sports. The following articles are of theoretical, empirical and sociological nature. Their authors do not intend to exhaust all the issues related to fencing, but rather emphasize problems of special concern to fencers, fencing coaches and all enthusiasts of this elite combat sport. The present edited collection aimsto inspire further development of fencing theory and practice. The authors do not give straightforward solutions to be implemented on the piste, but aim to encourage the readers to think and experiment with some ideas fromfencing and other combat sports.

Studies in modern competitive fencing is a collection of several original and review papers written by authors from five Polish academic centers. The constituent articles include reflections and observations by fencing masters, coaches and academic lecturers with extensive teaching experience in anthropology, human motor function, history of physical culture, methodology of physical education, sport psychology and sport and fencing theory. The contributors are not only renowned fencing theorists but also experienced coaches of fencing, team games, golf, riding, rowing and skiing as well as athletes and activists with no links to professional sport.

The 8 articles in the volume are grouped into three thematic parts: Part I: *Historical and theoretical aspects of fencing* (2 articles); Part II: *Psychology in fencing* (1 articles); and Part III: *Body build and motor training in fencing* (6 articles). All of them tackle various issues related to motor function as well as theory, history, and psychology of sport – in particular motivation in sport. I am convinced these contributions will shed light on the nature of fencing training and acquaint the reader with determinants of effectiveness in fencing.

Readers of the book have a great opportunity to learn about the current research conducted by Polish scholars and scientists dealing with various fencing issues. The readers will also find literature studies on symmetric fencing training as well as reflections that human behavior cannot be verified in an experimental way and that progress in the field of motor control appears impossible.

Fencers, as practitioners of an anaerobic sport, must display excellent coordination skills and explosive force, adequate reaction and movement times (especially in response to the opponent's actions), movement precision and spatial orientation. Within the limited space of the piste concentration of attention is also crucial in choosing appropriate actions in a bout.

Success in fencing is also determined by motivation and arousal, both during training and championship matches. It depends on the coach's instruction, but first of all, on the fencer's attitudes, behavior, personal commitment and many other various factors. An important role in the realization of goal orientations is played by task orientation, e.g. perseverance and conviction of the effects of one's own efforts on the result. That is, the awareness that significant engagement in a sporting activity increases one's opportunities to attain better outcomes. On the other hand, a high level of ego orientation focused on winning, and confronting one's sports level with others is not conducive to the optimal use of one's own sport potential.

An important development in fencing training is the improvement of running speed as it correlates with the fencer's tactical and specialist skills. Also the fencer's build and physical training affect his or her achievements. For example, young female fencers examined in one of the studies featured a robust body build, whereas young male fencers a slim body build. The greater percentage of body fat in girls results, however, from the genetic dominance of this particular body component.

It should be noted than in recent years the general level of physical fitness of young people has deteriorated, which can be explained by regressive inter-generational population changes, changes in the weight-length proportions in young people, reduction of strength capabilities of young people in overcoming the resistance of their bodies as well as endurance abilities so crucial in fencing.

With a view to fencers' health and fitness, fencing coaches should monitor fencers systematically and properly apply teaching loads at various stages of young people's development – especially in pubescent girls – to avoid spinal and articular overloads and apply appropriate preventive and therapeutic procedures.

According the famous American swimmer, coach, psychologist, scientist and author, James Counsilman, thanks to intelligence and hard work anyone

can attain the best results. This is the standard used for measuring oneself and others.

The quality of competitive sports in the world, and fencing in particular, has levelled out in recent years. Therefore, medals at major events are won by representatives from increasingly more countries with a comparable degree of technical training and fitness. Training systems in individual countries make use of the achievements of various scientific disciplines. In their monograph, representatives of leading Polish scientific centres make an attempt to arrange the knowledge of fencing. It is an in-depth introduction to research entitled "The application of multifaceted coordination training to improve precision and visual perception among fencers", conducted at the Adam Mickiewicz University in Poznań as part of the programme "The Development of College Sports" funded by the Ministry of Science and Higher Education in 2015–2017 (project no. N RSA3 04253).

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