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**WOMEN AND SPORT: A HISTORICAL OUTLINE  
AND CONTEMPORARY SOCIAL AND PHYSIOLOGICAL ISSUES**

**Key words:** women, sport, social expectations.

ABSTRACT

The article discusses the development of women's sport from antiquity to the present day. It focuses on the activities of the so-called sport suffragettes at the turn of the 19<sup>th</sup> century. Women's struggle to participate in sports on a par with men consisted of their constant attempts to secure men's consent to allow them to take part in the Olympics as well as of their increasing participation in more and more sports disciplines. Women struggled hard to acquire the equal status of female competitors, female coaches and female sports activists. They also fought for equal rights in terms of sport finances. One of the greatest outcomes of their strenuous efforts was the first ever lighting of the Olympic torch by a female athlete in 1968. The research part of the article presents problems common to men's and women's sports, e.g. anorexia. The author also presents results of a research study concerning reactions of the female body during swimming in water of low temperature. The article makes extensive use of literature as well as results of physiological and sociological research and points to the current transformations in women's sport.

The history of women's struggle to participate in various forms of physical culture has been long and eventful. Women practiced recreational and competitive sports in the form of exhibition events in ancient Egypt. Water sports in particular are known to have been popular among Egyptian women at that time due to the country's geographical location and climatic conditions [17]. The exhibits in the Louvre Museum include ancient wooden caskets in the shape of female swimmers from 3000 B.C. In 30 B.C. Egyptian Queen Cleopatra is known to have demonstrated her great diving skills to Marc Anthony.

Inscriptions and murals from Egyptian pyramids from around 2500 B.C. depict girls playing ball and juggling small balls of the size of modern tennis balls. Egyptian female acrobats,

dancers and ball players performed group shows on a highly professional level while entertaining foreign dignitaries [8]. Drawings depicting these spectacles can be found on the walls of ancient Egyptian tombs.

In ancient Greece only men were allowed to take part in the Olympic Games. Women, under threat of death, were not even allowed to watch the Games. Only the priestess of Demeter could watch the games and she took a designated seat among the spectators. At the male ancient Olympic Games only an affluent woman owning a victorious horse-drawn carriage could have been awarded with laurels in the horse-riding competition.

Ancient Greek women had, however, their own Heraea Games, also held every four years, however, in a different cycle than the male

Olympics. The Heraea Games were devoted to the Mother of Gods Hera and consisted only of running events. The first known winner of the games was Chloris daughter of Amphion. The winners were awarded with laurel wreaths and were allowed to place clay plates with their own portraits in the temple of Hera.

At the ancient Cretan games, where the most important events consisted of bull-riding acrobatics, the main participants were women. They most often held the bull by the horns and performed acrobatic acts on the animal's back. Acrobatic dances on the bull back in Crete were of religious character and posed a great danger to the performers. It remains unknown whether these were the reasons for women's participation in such shows. In various ancient cultures offerings to gods were war captives, animals and women. Also mythical dragons were often bribed with offerings of young girls.

In ancient Rome women used to play the game of trigon in thermal baths. The players wore outfits resembling the modern bikini. The game was played by three players who threw one or more balls to one another.

The prototype of modern synchronized swimming, currently an Olympic event, were colorful pageants staged in amphitheaters in the water by Roman girls to the musical accompaniment. These shows were described by Roman poet Martialis c. 80 A.D. It can be, therefore, concluded that physical activities were fairly common among ancient women.

The development of physical skills by ancient men mostly served as means of their military training like, for instance, in Sparta. The social system of Sparta was, however, exceptional, as physical development of girls was also considered to be crucial. Spartan girls took part in running races and wrestling bouts, threw discuses, played ball and danced. The aim of these exercises was to improve the girls' health so they could give birth to healthy offspring [9].

We know little about physical activities practiced by women of other nations and cultures. In the 18<sup>th</sup> century English authors described boxing matches organized in Hawaii and Tonga in which also female fighters took part [6]. In Hawaii there were no differences between men's and women's boxing fights.

In later centuries women's sport in Europe was practically non-existent. Only wealthy women rode on horseback or played games being prototypes of modern croquet, golf and tennis.

These games were forms of active leisure among the social elites. Elizabeth I was known to play golf in England in the 16<sup>th</sup> century. For a long time it was highly inappropriate for an upper-class woman to get undressed and take a swim. Common girls had more opportunities to swim out of sight in lakes or rivers.

More or less historically significant instances of women's physical activity throughout the centuries had virtually no effect on development of ideas on practicing sports by women. Physical work was common and unavoidable for women from lower classes. These women, from towns and the countryside, often worked very hard. Paradoxically, it was commonly believed that for women from upper classes a physically passive lifestyle was most appropriate. Aristocratic women in Europe were usually protected from any physical effort. They were not allowed to carry even the smallest loads or perform the smallest physical chores. For centuries this was a social norm which made women, who were physically and socially weak, completely dependent on men. Arguments justifying such cultural patterns included protection of woman's fertility and a deep conviction about the weakness of woman's body. The real cause of woman's weaknesses, e.g. frequent fainting, was their attire (corset constriction), total lack of any stimulation of physical development or even its overt inhibition. Upper-class women were taught since childhood not to run and they always assumed body positions considered to be elegant while walking and sitting. Another cause was the cultural perception of a woman as a frail being, constantly expecting support from men. A woman who showed herself as strong and independent aroused suspicion and had small chances to get married, condemning herself to low social esteem and life dissatisfaction.

Like feminists who fought in the 19<sup>th</sup> and 20<sup>th</sup> century for their social position and equal rights, women have had to struggle for their right to practice physical activity and competitive sports. Women's sport developed not only as the domain of female athletes who attained good sports results. It was preceded by broad activities of sport suffragettes who for many years paved the way for women's sport and made it possible for women to engage in physical activities and competitive sports.

In the 19<sup>th</sup> century Elizabeth Cady Stanton [10] put a great deal of effort to make the American society see the status of women in the United States. Following the abolishment of slavery she

strongly postulated emancipation of women. Her childhood was typical of many a suffragette. She was concerned with receiving good education and getting involved in physical and sports activities. In her publications she claimed that if girls, like boys, were allowed to play outdoors at the early age they would grow bigger. By the 19<sup>th</sup> century standards her ideas were truly revolutionary. She thought that women could reach the same level of intellectual and physical abilities as men. Cady Stanton was against women's confinement at home and literally propagated women's motor activities outdoors. She also postulated a change of women's attire and wearing more loose clothes.

An interesting figure who stressed the importance of physical activity in women's life was Charlotte Perkins Gilman [16]. Gilman in her articles expressed rather radical opinions by the 1930s standards, claiming that for women physical activity could be a measure to maintain good health and physical strength. It could be also a chance for women to lift the burden of customs, morals and traditions. She opposed contemporary medical theories which propagated the view that the way to solve women's health and psychological problems was passive rest. Gilman was of the opinion that a physically active lifestyle was a guarantee of woman's proper mental and intellectual functioning.

Canadian Alexandrine Gibb [5], who lived in the first half of the 19<sup>th</sup> century, was a pioneer of organization, administration and promotion of women's competitive sport. She was a co-founder and president of women's clubs and sports unions. Gibb encouraged practicing numerous sports by women, defying men's opposition and conviction that these sports were not suitable for women. She also established a high position of female coaches in society showing that also women can effectively train and prepare female sports teams for competition. She was a prolific sports journalist rallying supporters and enthusiasts of women's sport activities as well as an effective opinion maker. Her contribution to the establishment and development of women's sport in Canada and many other countries was invaluable.

In the 19<sup>th</sup> century, the development of women's sports closely followed men's sports. In 1868 women took part for the first time in a cycling race in Bordeaux. Like men, they also achieved remarkable sports and circus feats. For instance, in 1876 Maria Spelterini became the first woman to walk on the line over the Niagara Falls. She made

her performance even more spectacular by wearing wicker baskets on her feet.

The first modern Olympic Games were held in 1896. Their initiator Pierre de Coubertin was strongly against women's participation<sup>1</sup> [2]. He thought that women could merely award the winners with Olympic laurels. De Coubertin defended his stance all his life; however, he duly complied with resolutions of the International Olympic Committee that gradually admitted women into the Olympics. For the first time female athletes took part in the Olympic Games in Paris in 1900; however, they only competed in golf and tennis.

The greatest struggle of sport suffragettes was to allow women to participate in track and field events. Their efforts turned successful during the 9<sup>th</sup> Olympic Games in Amsterdam in 1928. It was at those Games that a female discus thrower Halina Konopacka won the first ever Olympic gold medal in Poland's history. She was an outstanding sports figure. Apart from her Olympic success she broke three times the world record and twenty-seven times her country's record in discus throwing. Konopacka was also a poet and painter. Her poetry was published in Polish literary magazines *Skamander*, *Wiadomości Literackie* and *Świat*. In 1929 she published a volume of her poems *Któregoś dnia* (Someday).

For the longest time women were awaiting the honor to light the Olympic torch. The first woman to be granted this honor was Enriquetta Basilio who lit the torch during the opening ceremony of the 19<sup>th</sup> Olympic Games in Mexico City.

Today women practice numerous sports but there are still sports events in which only men can take part. They include dangerous, endurance and extreme, hi-tech sports such as speedway, Formula 1 racing, rugby, motocross, motorboating and others. At the Olympic Games women do not take part in ski jumping, iceboat regattas, football and boxing. However, female athletes are becoming gradually active in these sports defying criticism from men and women alike.

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<sup>1</sup> Cf. Coubertin P., *Les femmes aux Jeux Olympiques*, *Revue Olympique*, 1912, 109-111 and Coubertin P., *La bataille continue*, *Bulletin du Bureau International de Pédagogie Sportive*, 1931, 5, 5-7, after Pierre de Coubertin. *Textes choisis*. Tome II. *Olimpisme*. Weidmann. Zurich-Holdesheim-New York, 1986.

Until some time ago women did not create new sports disciplines but merely followed the footsteps of men. They competed in sports and events created by men for men. At present there are two sports created by women for women that until recently have been only practiced by women: artistic gymnastics and synchronized swimming. Currently, men are beginning to practice synchronized swimming as well. If the popularity of this sport increases among both sexes a separate classification into men's and women's events will be necessary as men being physically stronger would easily win with women. This could be a genuine precedent.

An interesting coeducational scheme has been developed in korfbal [11]. The korfbal rules stipulate that one half of each team must consist of men and the other half of women. Also in each zone of the field there must be the same number of boys and girls. This scheme teaches cooperation and mutual understanding between both sexes.

An interesting sport in this respect is horse riding, especially dressage, in which men and women compete as one category and the latter happen to win more often. Women's successes in dressage have been interpreted in a variety of ways; however, the most probable explanation of their victories is their ability to develop good contacts with the horse, patience, and better communication skills. Men tend to achieve these goals by way of order and coercion, and fail to achieve the same level of success as women.

In two sports which do not require special body build or muscle strength, i.e. bridge and chess, separate competitions and classifications for men and women are held depending on the event.

Women also achieve better sports results in long distance swimming, a non-Olympic sport. This can be explained by a higher ability of women's body to retain heat due to the thicker layer of subcutaneous adipose tissue. McArdle et al. [7] claim that although thermogenesis, i.e. body heat generation, is less effective in women than men, in the water the heat balance in men and women is similar. The woman's body's oversized surface in relation to body weight, thinner extremities and less effective thermoregulation are compensated for by the thicker subcutaneous fatty issue, also covering the working muscles.

The above observation was confirmed by Rennie et al. [12] in their study of body insulation in Korean Ama sea diving women. They noticed that the thickness of adipose tissue as a thermal

insulation layer is the reason why women, and not men, practice sea-diving. The Ama women were found to dive for sea food and pearls since the age of 12. The Ama men assisted their women, rowing and keeping the fire burning on the boats so that the divers could get warm. Some divers who were mothers of small babies breastfed them on the boats as well.

One of the most famous long-distance swimmers was Lynn Cox who swam across the Straits of Magellan (four kilometers in ice-cold water) and the English Channel nine minutes faster than the male record holder. She also swam across the Bering Strait between the islands of Little Diomedede and Big Diomedede, symbolically linking the United States and the Soviet Union during the Cold War as well as covered one mile off the Antarctic coast. Another famous swimmer, Alison Streeter, crossed the English Channel thirty-two times between 1982 and 1995.

Women started swimming across the English Channel much later than men. The first male swimmer, Captain Matthew Webb, crossed the Channel in 1875. The first woman Gertrude Ederle from the United States swam across it in 1926. At present the feats of long-distance female swimmers have exceeded those of men. It has been noted, however, that men take up long-distance swimming far less often than women. This state of affairs can be justified by the relative media unattractiveness of long-distance swimming races, their monotony, exposition of the athlete's body to high stress and acute cold, and low financial benefits for the athletes.

Men's and women's participation in sport differs to a great extent in terms of financial matters. Professional sports with their financial opportunities are mostly the domain of men, e.g. boxing and speedway. Tennis, however, remains a sport in which both men and women compete for very high financial rewards. There are many women in professional tennis whose earnings are not different from men's. Occasionally, world elite women tennis players threaten with strike to ensure similar earnings to male players.

In general, sponsors invest more money in men's sports as sports results achieved by men remain on a higher level. Men's events also attract more spectators and greater publicity. If, however, the sports level of female athletes is higher than of male athletes, spectators take more interest in women's events. A good example may be the *Olimpia* women's basketball team from Poznań,

Poland in 1994 and 1995. When the team started to achieve great sports successes in town its matches attracted the highest number of spectators.

Physical conditions will always be a hindrance in attaining good sports results by women. Men being physically stronger and more muscular will always run faster and jump further. It will be always difficult for women to compete against men in spectator sports as spectators always desire to see the absolute records.

The lowest financial disproportions between male and female athletes can be seen in track and field. Female track and field athletes enjoy the same fame and publicity as their male counterparts. Track and field as the queen of all sports is a spectacular series of events and very attractive for sponsors.

There is another type of games in which only women can compete, without male athletes, spectators and TV cameras present. These are the Islamic Women's Games, held for the first time in Tehran in 1993 [14]. At the games the referees, coaches and staff are all women from Muslim countries. The results achieved by these female athletes have been largely unknown to the outside world. The athletes are not allowed to compete in international championships and are deprived of the opportunity to show their skills and sports level to the world audience. One of the reasons is the sports outfit. A deterrent to these women was the famous case of Algerian athlete Hassiba Burmelka who competed in the West achieving high sports results and bringing fame to her own country. She could not, however, return to Algeria because she took part in competition wearing shorts. Her family back home was persecuted and she was forced to stay in the West.

One can often hear opinions that women should not practice particular sports for a variety of health and aesthetic reasons. One of the most frequent arguments against women's participation in sport training is care about women's health, in particular, about their future successful maternity. A great number of instances from the last decades show that sport is no obstacle to maternity and maternity does not affect negatively attainment of good sports results. Many female athletes achieved their greatest sport successes after giving birth to a child or while being in the first months of pregnancy. This issue, however, has not been given enough attention in scientific literature. A number of studies have rather focused on women's physical fitness during their sports career and many years

after its completion, e.g. Vaccaro et al. [15] and Dummer et al. [3]. They noted that muscle strength and physiological capacity of former female athletes were on a higher level at their later stages of life than of women who had not practiced any sport in their life. If a professional sport on a high level can exert a negative influence on one's health, it is of concern both to men and women.

The results of studies on the health condition of mature women who used to be professional athletes differ considerably. Frisch et al. [4] analyzed the incidence of breast cancer and cancer of reproductive organs in women who practiced sports in college and those who did not. The incidence of cancer in the former was far lower than in the latter.

At the turn of the 1980s I carried out my own study of female athletes – former rowers and swimmers – versus a group of women who never practiced any competitive sports. The study focused on relations between the menstrual cycle and the incidence of gynecological diseases and the course and level of the subjects' sports career [13]. The results showed that female swimmers differed significantly from the rest in terms of their menarche age (12.7 years in swimmers, and 13.4 and 13.6 in rowers and non-athlete women, respectively). Irregularities in the menstrual cycle occurred in 28.8% of former swimmers, 3.3% in former rowers and 10% of non-athletes.

Abnormalities during pregnancy occurred in 34.8% of former swimmers, 4% of former rowers and 9.8% of non-athletes. Abnormal parturition occurred in 18% of former athletes and 5.6% of non-athletes. Newborns of former swimmers had the lowest mean birth weight – 3304 g, of former rowers – 3578 g, and of non-athletes – 3434 g. The percent of newborns with life-condition problems was the highest among children of the former swimmers (20.6%) followed by rowers (11.1%) and non-athletes (5.1%). The greatest number of the former swimmers (25.3%) breastfed their babies as opposed to 4% of the rowers and 18.6% of non-athletes.

The studied rowers did not suffer from any diseases of the reproductive organs during their sports careers; however, these problems occurred in 28.8% of the former swimmers. In later years of life 61% of former swimmers and non-athletes and 53.3% of former rowers experienced diseases of the reproductive organs.

The last question the subjects were asked was whether they would allow their daughters to

practice their sport in the future. 23.1% of the former swimmers expressed their consent as compared with 50% of the former rowers. In the 1960s Astrand [1] asked former Swedish women swimming champions a similar question and received similar results. 61% of his subjects said they would allow their daughters to practice swimming professionally provided they used former – but not present-day – training loads. Only 24% of the former Swedish swimmers would agree for their daughters' practicing competitive swimming.

At present a woman can choose between a professional sports career – potentially detrimental to her health – and a healthy lifestyle. It has been well-known that highly competitive sport has often a negative influence on man's or woman's health condition. However, money, fame, experience and social advancement often play the most significant role in the life of both male and female athletes.

In a popular view women's encroachment onto almost all traditionally male sports has been accepted with difficulty. We have got used to women playing soccer. We are getting used to women practicing Eastern martial arts, but we are still having difficulties to accept women boxers or kickboxers. The opponents of women's participation in those sports deploy arguments about women's health, motherhood and esthetic issues. The health argument and the argument about human reproduction capacity are of the same concern to men and women. An intensive sports career and related stressful lifestyle, frequent travels and changes of climatic zones and often inseparable pharmacological stimulation can be all harmful to men's reproduction capacity as well. Human rights guarantee one's free choice to decide about having or not having children. A woman does not have to be a slave to society's beliefs about her vocation.

There are many problems of sport common to men and women, e.g. anorexia. Anorexia used to be a woman's disease but it has recently become present in men's sports where the sports result is mostly determined by the athlete's body weight. Apart from sports with weight categories, e.g. wrestling or weight lifting, in which the athletes' body mass is often pharmacologically reduced before official weight taking, cases of anorexia occur among ski jumpers. Ski jumping has been a traditionally male sport and women have merely started to take part in it. Also male sports dancers and ice dancers are much concerned about keeping a slim figure as in these sports aesthetic values,

including the athlete's body shape may greatly affect the judges' final mark.

Women do and will participate in more and more sports and types of physical activities. Women will fulfill themselves in numerous areas of life of their own choice, often combining their successes in sport, motherhood and professional life. The decision what is important to them at any stage of their life will remain their own.

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