

## Gender identification of athletes of different qualifications regarding classification groups of sports

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**Purpose:** identify (determine) gender types of athletes of different qualifications depending on the classification groups of sports.

**Material & Methods:** the study involved 859 students from 17 to 28 years old, who study at the Kharkiv State Academy of Physical Culture, the National University of Physical Education and Sports of Ukraine and the Sumy State Pedagogical University named after A. S. Makarenko, specializing in Olympic and non-Olympic sports and with various sports qualifications. Of these, 428 male athletes and 431 female athletes. Such research methods were used as: analysis and generalization of literary sources and Internet resources on the investigated problem; questioning; conversation; psychological methods: S. Bem's technique "Masculinity / femininity"; methods of mathematical statistics.

**Results:** the percentage correlation of masculine, feminine and androgynous types of personality was revealed among 859 male and female athletes studied, who specialize in sports games and martial arts, in cyclic, speed-strength and complex coordination sports. With a masculine personality type, 238 young men were identified, which is 55% of the total number of athletes and 238 girls (56% of their total number). Athletes of the androgynous type identified 193 people (45%), and athletes – 190 (44%). Feminine-type personalities were not found among either boys or girls. The percentage ratio of masculine and androgynous male and female athletes in different classification groups of sports and sports disciplines relative to their biological gender and sports qualification is also determined.

**Conclusions:** regarding such a concept as "gender", men and women belong to one of three sociocultural sexes: masculine, feminine, and androgenic. The idea of masculinity and femininity is associated not with the biological sex of a person, but with the type of culture to which he belongs. Sport, as an institute of socialization, actively contributes to the formation of gender qualities of an individual. As a result of the study, it was proved that the ratio of gender types in both men and women varies depending on the type of sports activity that they are engaged in. High qualification of athletes and athletes contributes to the formation of masculinity in them.

**Keywords:** gender, men, women, masculinity, femininity, androgyny, gender identity.

### Introduction

Under the concept of "gender", which was introduced into science by the American psychoanalyst Robert Stoller in 1958, we understand the social gender that determines the behavior of a person in society and how this behavior is perceived [7; 8; 14]. G. Stoller's proposal on breeding the biological and cultural component in the study of gender-related issues gave impetus to the formation of a special direction in modern humanitarian knowledge – gender studies, which began to be actively carried out from the 60–70s of the XX century.

The concept of masculinity and femininity is manifested by normative ideas and attitudes, which should be, and therefore what men and women should do in this society at present. Masculinity and femininity are social, not biological, categories. They define our gender identity and are directly related to our perceptions of ourselves and others. Gender identity is the recognition of one's belonging to a certain gender and the willingness to abide by relevant social gender norms [9; 10].

Representations of masculinity and femininity are associated not only with the biological sex of a person, but also with the socio-psychological article of the individual. Understanding the similarities and differences between the biological and

socio-psychological sex helps a person to determine his life, in professional activity, including in sports activities [1; 2].

The problem of the formation of masculinity or femininity causes a lot of controversy and divergence of views, in particular, on the question of whether these components of the personality are innate or those that were acquired during the development of personality.

Gender differences were addressed by authors such as E. E. Maccoby, C. N. Jacklin (1974), S. L. Bem (1979; 1983; 1993; 2004), K. Deaux, B. Major (1987), D. A. Gentile (1993), R. K. Under, M. Crawford (1993), A. Feingold (1994), J. Homsby (1995), I. S. Kleitsina (1998; 2003; 2009), S. Berne (2001), N. G. Tsykunov (2003), and I. Taran (2004), T. V. Bendas (2006), E. P. Ilyin (2003; 2010), A. Weininger (2012), D. B. Ver-shinin (2017), A. V. Voronova (2014, 2015, 2018), N. A. Skomorokhova (2018) and others. But most of their work dealt with gender psychology.

The activity that this or that individual is engaged in, his character, cannot but affect the change in the structure of the personality. Sport is one of the highly specific areas of human activity, and, as an institution of socialization, actively contributes to the formation of gender personality traits [11; 12].

Each person, despite the biological sex, has a combination of both courage and femininity. The combination of these components forms a series of transitional forms with a pre-dominance of either masculinity or femininity. In a fairly large number of cases, the equal contribution of both undertakings to the general essence of a person is observed. The combination of masculine and feminine signs of behavior, that is, a phenomenon in which a person shows both male and female qualities, forms the androgynous type of personality. Masculinity, femininity and androgyny are not biological, but social categories that reflect stereotypical ideas about personal characteristics, appearance, behavior, interests, interpersonal relationships of men and women and their professional occupations [3; 8].

Gender roles are always associated with the specifics of the regulatory system, which is recognized in a particular socio-cultural environment, which the person assimilates and projects on his behavior [4; 6]. But how deep, pivotal or not these personality changes, the difference in this issue between men and women, encourages them to engage in certain types of sports activities, how and to what extent does this affect the change in personality structure? These issues, as well as the relationship between biological and socio-psychological sex, have been particularly acute in recent years in connection with the spread of sports and sports disciplines that women began to engage in. Currently, girls compete in those sports that until recently were traditionally considered men's. In them, athletes exhibit behavioral features atypical within society, and often from a biological point of view [5; 15].

Currently, the majority of scientific studies of such authors as N. G. Tsykunov (2003), A. L. Vorozhbitova (2007), T. V. Artamonova; T. A. Shevchenko (2009), Sh. K. Shakhov, A. S. Damadaev (2011), T. Yu. Maskaev, G. M. Germanov (2014), D. I. Dzhrumiy (2015), K. A. Bugaevsky (2016; 2017; 2018) and others are aimed at the formation of gender types of athletes in various sports. But the question is, what kinds of sports are more conducive to the formation of certain gender characteristics have not been studied enough. In this regard, this work is devoted to determining the characteristics of the formation of gender types of athletes, depending on their sports qualifications and classification groups of sports, acquires timeliness and relevance.

**Purpose of the study:** to determine the gender types of athletes of various qualifications, taking into account gender and depending on the classification groups of sports.

## Material and Methods of the research

*Research Methods.* Such research methods were used as: analysis and generalization of literary sources and Internet resources on the studied problem; questioning; poll; psychological methods: S. Бұһм's technique "Masculinity / femininity", which diagnoses the psychological gender and reveals the degree of androgyny, masculinity and femininity of a person [16]; methods of mathematical statistics.

*Study material.* The study involved 859 students from the age of 17–28 who study at the Kharkov State Academy of Physical Culture, the National University of Physical Education and Sports of Ukraine and the Sumy State Pedagogical University named after A. S. Makarenko, involved in Olympic and non-Olympic sports and have various sports qualifications (from

mass athletes to those with the title of Honored Master of Sport). Of these, 428 athletes and 431 athletes specializing in sports and disciplines such as judo, sambo, boxing, kick-boxing, karate, taekwondo, freestyle wrestling, Greco-Roman wrestling, mixed martial arts, Thai boxing, hand-to-hand fighting, capoeira, grappling, athletics, skiing, swimming, short track, rowing, orienteering, cycling, sports tourism, triathlon, biathlon, horse riding, sailing, parachuting, rowing slalom, fitness, modern dance, figure skating, jumping into the water, sync swimming, rhythmic gymnastics, aesthetic gymnastics, sports gymnastics, workout, tumbling, acrobatics, acrobatic rock and roll, aerobics, cheerleading, ballroom dancing, archery, motorsport, motor sports, mountaineering, volleyball, badminton, tennis, hockey, water polo, handball, basketball, table tennis, baseball, bowling, petanque, chess, football, rugby, weightlifting, powerlifting, weight-lifting, arm sport, bodybuilding.

The types of sports and sports disciplines that the subjects are engaged in were divided into groups relative to the most common classification, reflecting the specifics of movements, as well as the structure of competitive and training activities (according to V. N. Platonov).

## Results of the research

In various sports, different requirements are made to the personality of athletes. In some forms, they are required to manifest a higher level of aggressiveness, courage, determination, assertiveness, strength; secondly, increased artistry, sensuality, expressiveness, emotionality, grace; thirdly, the manifestations of logical thinking, the ability to quickly navigate and make decisions in non-standard situations, good memory, etc. Thus, this or that type of sports activity affects the formation of the gender type of athletes [13].

During the study, the percentage of masculine, feminine and androgynous types of personality was found in all athletes and female athletes, both qualified and discharged. With a masculine personality type, 238 athletes were identified, accounting for 55% of their total number, and with androgynous – 193 people, respectively – 45%. Young men who have a feminine personality type were not identified during the study.

We observe a similar situation in girls. Athletes of the feminine type of personality were not found. In total, 428 athletes took part in the study, 238 of which were masculine-type girls, that is 56%, and 190 androgynous – this is 44%.

We see that in relation to the total number of people studied, the percentage of boys and girls involved in various sports is almost identical.

The absence of male athletes and female athletes with a feminine gender status indicates that sports activity imposes certain requirements on a person's personality and affects people involved in sports in a certain way.

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For androgyny, a combination of the characteristics of masculinity and femininity is inherent, that is, the merging into a single whole of the dominant male principle and the emotionally expressive female principle. (T. V. Artamonova, T. A. Shevchenko).

Concerning the classification groups of sports and gender, the sociocultural gender of the studied and the percentage of representatives of various gender personality types among male athletes and female athletes specializing in complex coordination, speed-strength, cyclic sports, sports games and martial arts were found. Young men and women who are engaged in all-around and combined sports are not enough to conduct an analysis (6 male athletes and 8 female athletes). Therefore, this group was not considered in our study.

In speed-strength sports, athletes with androgynous personality type during the study revealed more than athletes with the same type (45% of boys and 27% of girls). And masculine type athletes are fewer than athletes of this type (55% of boys and 73% of girls).

However, among male athletes and female athletes involved in weightlifting, powerlifting, weight lifting, arm wrestling, bodybuilding, masculine-type boys and girls predominate, but the difference between masculine and androgynous athletes is not significant, and this difference is quite large among athletes.

If we compare male athletes and female athletes in cyclic sports with respect to belonging to a particular sociocultural gender, then among girls there are more masculine persons (54%), and among boys – androgynous (52%).

In complex coordination sports, 45% of boys are masculine, and 55% are androgynous. In women, this indicator: 53% – masculine athletes and 47% – androgynous. Thus, in boys, faces of the androgynous type predominate, and in girls, the masculine type.

In sports games, the advantages of both masculine male athletes and masculine female athletes over androgynous were found (in boys, the ratio of 60% is masculine and 40% is androgynous, in girls – 59% – masculine and 41% – androgynous).

When comparing boys and girls with respect to their gender type, we see that masculine type athletes are not much more than female athletes of the same type (60% male and 59% female), and among respondents with an androgenic type there is a slight advantage on the part of female athletes (41% are girls and 40% are boys). Thus, we can conclude that as a

result of research in sports games, almost the same number of athletes and female athletes of the masculine and androgynous sexes were found.

In martial arts there is a picture similar to sports games. Both male athletes and female athletes found a greater number of masculine-type individuals (56% – girls and 58% – boys).

As for the comparison of the ratio of masculine wrestlers and athletes involved in judo, sambo, karate, taekwondo, freestyle wrestling, boxing, etc., a greater number of masculine young men were found (58%) than girls (56%). But there are more athletes with an androgynous personality type (42%) than athletes (44%). But this advantage is negligible for both masculine and androgynous personality types.

There is a predominance of masculine girls in all classification groups of sports. Among young men, a greater number of masculine athletes were found in martial arts, sports games and speed-strength sports.

At the next stage of the study, the percentage ratio of gender personality types among male athletes and female athletes specializing in sports was identified, belong to different classification groups regarding their sports qualifications.

All subjects with respect to their biological gender were divided into two groups. The first group is qualified athletes and sportswomen. These include those who have the title of HMS, MSIG, MS and CMS. The second group is ranked athletes (1 and 2 sports categories).

When comparing all the studied boys and girls with respect to their gender type and their qualifications, they found that highly skilled masculine male athletes are more than highly skilled masculine female athletes. Among highly skilled androgenic people, more male athletes than female athletes were identified.

Among ranked athletes there are more boys of masculine type than masculine girls. Among androgynous individuals with 1 and 2 sports categories there is a slight advantage in favor of female athletes (Table).

When comparing male athletes and female athletes with high athletic achievements with respect to their gender, it was found that among qualified athletes and sportswomen there are more masculine types, and among athletes and sportswomen with sports categories, we observe the ratio of masculine and androgynous men 48:52%, and girls – athletes of the androgynous type more than with masculine.

From the foregoing, we can conclude that the high qualification of athletes and athletes contributes to the formation of

## Ratio of highly qualified male athletes and female athletes to those with mass categories, relative to the gender type of person, %

Gender personality type	Biological sex			
	Boys (n=431)		Girls (n=428)	
	Highly skilled	Ranked athletes	Highly skilled	Ranked athletes
masculine	58	48	63	37
androgenic	42	52	45	55
feminine	0	0	0	0

masculinity in them. In order to achieve high sports results, you need to train a lot and fruitfully, set goals and achieve them, be mentally and physically ready for heavy loads, be able to mobilize all the reserves of your body at the right time, and much more. To realize all this, you need to have a set of qualities that are characterized as masculine in society.

When detecting and comparing the percentage of gender types of athletes and athletes relative to their sports qualifications in various classification groups of sports, it was found that the largest number of qualified masculine female athletes (90%) and qualified masculine male athletes (71%) are in martial arts. Highly skilled androgynous girls are in complex coordination sports (63%), and androgynous boys are in martial arts (60%) and cyclic sports (59%).

Among female athletes, female masculine girls are more involved in high-speed strength sports (50%), and masculine athletes of low sports qualifications are in sports games (74%). Androgynous girls with 1 and 2 sports categories in cyclic sports (68%), and boys of this gender type – in sports games (69%) and speed and power sports (67%).

## Conclusions / Discussion

Regarding such a concept as “gender”, men and women belong to one of three sociocultural articles: masculine, feminine, and androgenic. The ideas of masculinity and femininity are not associated with the biological sex of a person, but rather with the type of culture to which it belongs.

Sport, as an institution of socialization, actively contributes to the formation of gender personality traits. As a result of the study, it was proved that the ratio of gender personality types in both men and women varies depending on the type

of sports activity that they engage in.

As a result of the study, among 859 athletes and sportswomen, no persons having a feminine personality type were found. This indicates that sports activity makes certain demands on the person's personality and transforms it. It was revealed that the percentage ratio of masculine boys (55%) and girls (56%) and androgynous boys (45%) and girls (44%) involved in various sports is almost the same.

High qualification of athletes and athletes contributes to the formation of masculinity in them. This can be explained by the fact that in the muscles during exercise there is a metabolism of androgens – male sex hormones. In athletes, muscle tissue is well developed and therefore masculinization of both men and women involved in sports.

When detecting and comparing the percentage of gender types of athletes and athletes relative to their sports qualifications in various classification groups of sports, it was found that the largest number of qualified masculine female athletes and male athletes are in martial arts (90% and 71%, respectively). Skilled androgynous girls are in complex coordination sports (63%), and boys are in martial arts (60%) and cyclic sports (59%).

**Prospect of further research in this direction.** On this topic, further research is planned to be carried out in the direction of determining personality indicators (according to the Kettell questionnaire) among female athletes and male athletes specializing in various sports regarding their biological sex, gender type and sports qualifications, as well as to clarify the similarities and differences in gender stereotypes and attitudes, motives and goals of sports.

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## References

1. Artamonova, T.V. (2008), *Gendernye proyavleniya lichnosti v sporte* [Gender manifestations of personality in sports], Volgograd. (in Russ.)
2. Artamonova, T.V. & Shevchenko, T.A. (2009), *Gendernaya identifikatsiya v sporte* [Gender Identification in Sports], Volgograd. (in Russ.)
3. Bendas, T.V. (2006), *Gendernaya psikhologiya. Uchebnoe posobie* [Gender Psychology], St. Petersburg. (in Russ.)
4. Bugaevskiy, K.A. (2017), “The Study of Gender Identification Indicators in Female Athletes”, *Aktualnye nauchnye issledovaniya v sovremennoy mire*, No. 29, pp. 144-153. (in Russ.)
5. Vorozhitova, A.L. (2007), “The Gender Theory of Physical Culture as the Basis for the Formation of the Gender Consciousness of Athletes”, *Vestnik Stavropolskogo gosudarstvennogo universiteta*, No. 49, pp. 27-31. (in Russ.)
6. Dzhurmiy, D.I. (2015), “Features of Gender Identification in Sports Activities”, *Problemy sovershenstvovaniya fizicheskoy kultury, sporta i olimpiada*, pp. 169-174. (in Russ.)
7. Ilin, Ye.P. (2003), *Differentsialnaya psikhologiya muzhchiny i zhenshchiny* [Differential Psychology of Men and Women], St. Petersburg. (in Russ.)
8. Ilin Ye.P. (2010), *Pol i gender* [Sex and gender], St. Petersburg. (in Russ.)
9. Kovaleva, V.V. & Kodatskiy, I.Yu. (2017), “Features of the gender stereotypes of student youth”, *Territoriya nauki*, No. 2, pp. 31-35. (in Russ.)
10. *Osnovy teorii genderu: navchalnyy posibnik* [Fundamentals of Gender Theory] (2004), Kyiv. (in Ukr.)
11. Tarasevich, Ye.A. (2016), “Gender differences of athletes in various classification groups of sports and sports disciplines”, *Slobozans'kij naukovno-sportivnij visnik*, No. 2 (52), pp. 117-120. (in Russ.)
12. Tarasevich, Ye.A. & Kamaev, O.I. (2018), “Gender differences in assessing the role of playing sports as one of the indicators of the quality of life of athletes”, *Fizichna aktivnist i yakist zhittya lyudini. Zbirnik tez dopovidey II mizhnarodnoi naukovno-praktichnoi konferentsii*, Eastern Europe. nat. Lesya Ukrainka University, Lutsk, p. 71. (in Russ.)
13. Tarasevich, O.A. & Kamaev, O.I. (2019), “Peculiarities of Gender Differences in Martial Arts Athletes”, *Yedinoborstva*, No. 4 (14), pp. 117-26. (in Ukr.)
14. Tsikunova, N.G. (2003), *Gendernye kharakteristiki lichnosti sportsmenov v maskulinnykh i femininnykh vidakh sporta. Dis. kand. ped. nauk* [Gender characteristics of the personality of athletes in masculine and feminine sports: PhD Dis.], St. Petersburg, 181 p. (in Russ.)
15. Shakhov, Sh.K. & Damadaeva, A.S. (2011), “Sport as a factor in the formation of the psychological gender of a person”, *Teoriya i metodika sporta visshikh dostrizheniy*, pp. 16-18. (in Russ.)
16. Bem, S.L. (1979), “Theory and measurement of androgyny”, *Journal of Personal and Social Psychology*, Vol. 37, pp. 1047-1054.

17. Bem, S.L. (1983), "Gender schema theory and its implications for child development: Raising gender-schematic children in a gender-schematic society", *Journal of women in culture and society*, Vol. 8, No. 4, pp. 65-78.
18. Colker, R. (1980), "Correlates of female athletic: masculinity, femininity, selfesteem and attitudes toward women", *Sex Roles*, Vol. 6, pp. 47-58.
19. Matteo, S. (1986), "The effect of sex and gender-schematic processing on sport participation. *Sex Roles*", Vol. 15, pp. 356-371.
20. *Social groups and identities: developing the legacy of Henri Tajfel* (1996), W. Peter Robinson (Ed.), Butterworth-Heinemann, Oxford.
21. Volpato, Ch. & Contarello, A. (1999), "Towards a social psychology of extreme situations: Primo Levi's If This is a Man and social identity theory", *European Journal of Social Psychology*, Vol. 29, pp. 239-258.

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