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## DEFINITION OF GENDER IDENTITY IN YOUNGER AGE GROUPS OF WOMEN'S BOXING

*The article considers the means of determining gender identification of girls engaged in boxing and their impact on the training and competitive process. Purpose: to determine gender identification of qualified girls boxers. Material & Methods: the study involved qualified (participants, prize-winners, champions of local tournaments and championships of Ukraine in their age group) girls boxers 12-15 years old, who are engaged in the city children's and youth sports school. A total of 10 girls were interviewed, including 7 athletes aged 15 and 3 athletes aged 12 years, sports experience at the time of the study ranged from 3 to 5 years. Research methods used: S. Bem's method "masculinity - femininity"; Freiburg Personal Questionnaire (FPI) Masculinity Scale; analysis and generalization of literary sources; analysis of excerpts from the protocols of competitions and video viewing of semifinal, final matches of two championships of Ukraine; method of mathematical statistics. Results: it was determined that most girls (n = 9) with index values (IS) in the range from -0,348 ( $\pm 0.05$ ) to 0,580 ( $\pm 0.05$ ) belong to the androgynous type according to the S.Bem classification. Only one athlete (n = 1) with indicators (IS) -1,276 belongs to the masculine type according to the classification of S. Bem. Determination of masculinity signs using the FPI test showed the number of points scored from 4 ( $\pm 2$ ) to 9 out of 14 possible. Conclusions: The study proved the dominance of androgynous and masculine types in various sports in general. The ratio of gender types between individuals engaged in martial arts and boxing is revealed. The data on the dominance of the androgenic type of personality in the younger age groups of women's boxing have been supplemented. For more productive training of gender types of physical and special boxing exercises and forecasting of competitive activity, it is necessary to study individual psychological qualities of a girl-boxer. It is advisable in the subsequent stages of long-term training to conduct repeated tests of girls boxers of this research group in order to determine the progress of masculinization by age and sports experience and sports qualifications.*

**Keywords:** masculinity, androgyny, women's boxing, girls training, training of juniors.

**Конох А., Воронцов А. Визначення гендерної ідентичності у молодших вікових групах жіночого боксу.** У статті розглянуто засоби визначення гендерної ідентифікації у дівчат, що займаються боксом та їх вплив на тренувальний і змагальний процес. Мета: визначити гендерну ідентифікацію у кваліфікованих дівчат-боксерів. Матеріали та методи: у дослідженні приймали участь кваліфіковані (учасниці, призерки, чемпіонки локальних турнірів та чемпіонатів України в своїй віковій групі) дівчата боксери 12-15 років, які займаються в міській дитячо-юнацькій спортивній школі. Всього було опитано 10 дівчат, серед яких 7 спортсменок були в 15 річному віці та 3 спортсменки за віком 12 років, спортивний стаж на момент дослідження складав від 3 до 5 років. Використані методи дослідження: методика С. Бем «маскуліність - фемінність»; методика з визначення маскуліності Фрайбурзького особистісного опитувальнику (FPI); аналіз та узагальнення літературних джерел; аналіз витягів з протоколів змагань та відео перегляд півфінальних, фінальних двобоїв двох чемпіонатів України; метод математичної статистики. Результати: було визначено, що більшість дівчат (n=9) з показниками індексу (IS) у діапазоні від -0,348( $\pm 0.05$ ) до 0,580 ( $\pm 0.05$ ) належать до андрогінного типу згідно класифікації S.Bem. Лише одна спортсменка (n=1) з показниками (IS) -1,276 належить до маскуліного типу за класифікацією С.Бем. Визначення ознак маскуліності за допомогою тесту FPI показали кількість набраних балів від 4 ( $\pm 2$ ) до 9 з 14 можливих. Висновки: дослідження довело домінування андрогінного та маскуліного типу в різних видах спорту взагалі. Виявлено співвідношення гендерних типів між індивідами що займаються єдиноборствами і боксом. Доповнено данні що до домінування в молодших вікових групах жіночого боксу андрогенного типу особистості. Для більш продуктивного навчання гендерних типів фізичним і спеціальним боксерським вправам та прогнозування змагальної діяльності, потрібно вивчення індивідуальних психологічних якостей дівчини-боксера. Доцільно на подальших етапах багаторічного тренування провести повторні тести дівчат-боксерів цієї досліджуваної групи з метою визначити прогрес маскулінізації за віком та спортивним стажем і спортивною кваліфікацією.

**Ключові слова:** маскуліні, андрогіні, жіночий бокс, тренування дівчат, тренування юніорок.

**Formulation of the problem.** Due to the rapid development of women's boxing, the growth of competitions of various ranks at the national and international levels, especially in the younger age groups of women's boxing (girls, juniors), significantly increased competition in these age groups, which forced coaches to pay more attention to gender. features of girls-boxers for the purpose of selection and the most productive training, improvement of technical and tactical actions in boxing. Unfortunately, in modern primary Ukrainian and Russian textbooks on women's boxing such a problem is described superficially [7, 13]. Scientific and special literature is designed for highly qualified women boxers [11, 14]. What complicates such training in the younger age groups of women's boxing. Determining gender (socio-psychological sex) with such characteristics as "masculine", "androgynous", "feminine" will help the coach to determine the naturalness of the individual to the sport and to differentiate the training process of a girl boxer.

**Analysis of literature sources.** Gender identity is the inner self-perception of a person as a representative of a particular psychological sex, which is associated with social and cultural stereotypes about the behavior and qualities of men and women; it is an awareness of one's gender and a willingness to adhere to relevant social gender norms. Identity is formed and maintained

throughout a person's life, and depends on many factors. Sport is one of these factors. Different types of sports activities affect the formation of the identity of athletes, including gender [18].

Masculinity is a set of somatic, mental and behavioral features that are considered masculine, i.e. distinguish a man from a woman. Femininity is a set of somatic, mental and behavioral properties that distinguish a woman from a man. Androgyny is a combination of masculine and feminine traits, i.e. a phenomenon in which a person shows both masculine and feminine qualities [17]. Scientists, coaches working with women athletes have proven that different gender personality types are able to tolerate physiological, mental and physical loads in different ways [15].

Qualities that make up the content of masculinity in sports: activity, independence, independence, courage, assertiveness, perseverance, expression of will, ability to resist difficulties, ability to achieve goals, willingness to take risks, with high self-esteem and self-confidence and focused on success [2, 16, 17].

Sports physicians and specialists in various sports and women's boxing determine that this type has an increased concentration of androgens, which has a positive effect on the development of physical qualities such as speed, speed, endurance. Psychophysiological, it will be manifested in underestimation of anxiety and adequate response to stress. Testosterone will help improve different types of memory, spatial orientation and concentration [15].

According to experts, gender features are also present in purely "female" sports, as evidenced by the example of sports aerobics, table tennis, sports and ballroom dancing [4,19, 20]. Experts attribute this to physical activity in "women's" sports and increasing sports skills, resulting in a change in the phases of MC, muscle hypertrophy, strengthening the physique [4,18]. Scientists also associate these features with successful performance in competitions, because the properties that affect the sports result of highly qualified athletes and adolescents do not depend on the sex of the athlete [12].

The androgynous type of women is present in conventionally "male" and "female" sports, according to various data is 34.2 and 34% [9]. According to experts, the universality of this type in various sports is the manifestation in case of need of feminine and masculine traits (situational flexibility, ability to focus their interests as needed), better adaptation to new conditions, interpersonal contacts in the team [21].

The feminine type includes traits such as passivity, softness, caring, emotionality, sensitivity, shyness, willingness to help, flexibility, sensitivity, tenderness, compassion and empathy [21].

According to studies in various sports and martial arts, the percentage of androgenic properties in females with males of the same age is approximately 50%, approximately the same pattern is observed in athletes with masculine type, in which the difference between males and females is 2% in favor of men [17, 18].

In the same studies between women of different ages, according to different data, growth towards masculinity progresses, but it depends on the sport or a particular discipline and classification. A domestic scientist [4] studied 23 post-puberty girls who are engaged in weightlifting and powerlifting with sports experience from 3 to 8 years (the majority of respondents) and more than 8 years 4 respondents. Studies have shown the dominance of the masculine type in the number of persons - 6 athletes, then androgenic type - 4 athletes and feminine type - 1 athlete, but in powerlifting 5 athletes belonged to the masculine and androgynous type and 2 athletes to the feminine type. In the second study of this scientist among 41 post-puberty girls who played volleyball, wrestling, table tennis identified androgenic type in 58.54%, feminine in 17.07% of the rest of the girls of the masculine type [3,4].

The researchers studied 34 females aged 17-34, who were engaged in speed and strength athletics, weightlifting, powerlifting, arm sports, bodybuilding, weightlifting, in which they found 74% of athletes with masculine features and 26% with androgenic. It was determined that weightlifting and powerlifting have the greatest impact on the gender type in ratio of 78% to 80% [18]. In experiments among 47 girls aged 20-25 years, who were engaged in different structures of sports, proved the difference in the ratio of masculine and androgenic type depending on sports activities. For example, in complex coordination sports androgynous athletes accounted for 65% and masculine 35%, in speed and power sports masculine was 100%, cyclic sports showed 70% of androgynous and 30% masculine, 33 were found in sports % of androgynous type of girls and 67% of masculine type, martial arts showed that 40% belong to the androgenic type, and 60 to the masculine type [16].

In other experiments related to the definition of gender, girls aged 17-28 by the number of 73 people, in the types of martial arts, which were engaged in: judo, sambo, boxing, Thai boxing, kickboxing, karate, taekwondo, freestyle wrestling, Greek Roman wrestling, MMA, capoeira, grappling proved that 41 people (19%) belong to the masculine and 32 people (15%) with androgynous. Data on the percentage of masculine type girls who boxed in this experiment was 75% [17].

Scientist researched studied 60 post-puberty girls in sports: boxing, judo, wrestling, gymnastics, basketball determined the dominance of the androgen type [5,6].

An own study of 22 girls boxers, members of the national team of Ukraine aged 14-16 years directly in preparation for the European Championship 2019 among juniors, found that all juniors with index (IS) in the range from (-) 0.696 ( $\pm 0.05$ ) to 0.232, ( $\pm 0.05$ ) belong to the androgynous type according to the classification of S. Bem. Determination of masculinity signs using the FPI test (on a scale femininity masculinity) showed the number of points scored from 3 to 9 ( $\pm 2$ ) out of 14 possible belong to the androgenic type [21].

In the future, the attempt of specialists to correlate the obtained data of their research with different psychological qualities, attitude to the training process and participation in competitions showed the following results. The researchers found a close relationship between the masculine type, in speed and power athletics in 50 respondents aged 18-29 years, with certain personality traits and psychological state in competitive activities defined by units: extraversion with a coefficient (0.21); psychological readiness for competitions with a coefficient (0.29); aggression (0.55); self-esteem (0.91). Weakness of this relationship was also revealed, although according to experts it is not so significant in terms of indicators, it is the result at the main start (-0.53) and the best result of the season (-0.67). According to experts, the latest results are related to frustration and rigidity, which may affect immediately before the competition due to moving to another city or other climatic conditions [10].

In the research of specialists on the differences and convergences of psychological personal qualities between the

representatives of gender types, several indicators have been identified. Girls with a masculine type have a higher rate of "general intelligence" than girls with an androgynous personality type. At low indicators of this factor a person is characterized by specificity and some rigidity of thinking, ie the inability of a person to change, to respond flexibly to life situations that change spontaneously. According to the "stiffness-sensitivity" factor, the average values were found in androgenic girls. And masculine athletes have low rates for this factor. The presence of low indicators indicates that athletes with a masculine personality type, specializing in weightlifting, powerlifting and speed and strength athletics, are more courageous, more confident, more prudent, they have realistic judgments, practicality, but also some severity in relation to others [18].

The greatest similarity is established between masculine and androgynous athletes on the factors "susceptibility to feelings - high normative behavior" of the emotional-volitional block, "conservatism-radicalism" of the intellectual block and "conformism-nonconformism" of the communicative block. The factors "susceptibility to feelings - high normative behavior" and "conformism-nonconformism" revealed the average in both masculine and androgynous athletes. And according to the factor "conservatism-radicalism" - athletes of both gender types have low rates. Individuals with low rates of this factor are characterized by resilience to traditional difficulties, conservatism, their behavior is easy to predict [18].

According to the correlation of their own research, a certain similarity was found in athletes with the androgynous type in the preference of certain training sessions in the training process. Thus, out of 22 juniors, 50% preferred the game type of training, and only 6 athletes preferred to practice punches, series of punches and defense with a partner in a pair of boxing gloves. Although 15 respondents are not afraid of facial injuries, moreover, for 17 juniors, the advantage over the opponent is more important than the fear of injury [21]. As you can see from the above data, all girls belong to different sports and qualifications. The smallest number of representatives in sports of the feminine gender type. The main share of masculine type belongs to power sports. Also, these data, from the definition of gender, are closely correlated with indicators of participation in competitions and psychological qualities. What complicates such training in the younger age groups of women's boxing. Determining gender (socio-psychological sex) with such characteristics as "masculine", "androgynous", "feminine" will help the coach to determine the naturalness of the individual to the sport and to differentiate the training process of a girl boxer.

**Aim of Studu:** to determine the gender identification in girls 12-15 age who train in boxing.

**Material & Methods.** Participants: the study involved qualified (participants, prize-winners, champions of local tournaments and championships of Ukraine in their age group) girls boxers 12-15 years old, who are engaged in the city children's and youth sports school. A total of 10 girls were interviewed, including 7 athletes aged 15 and 3 athletes aged 12, with sports experience from 3 to 5 years. Young female athletes participated in the study voluntarily. The studies were conducted in accordance with the ethical standards of the Declaration of Helsinki. Research methods used: S. Bem [1] method "masculinity - femininity" and Freiburg Personal Questionnaire (FPI) Masculinity Scale [8]; analysis and generalization of literary sources; analysis of excerpts from the competition protocols and video review of the semifinal, final matches of the three championships of Ukraine during 2019, 2020 (October), 2021 (Marh) among girls, juniors at the beginning of the year and at the end of the year ; method of mathematical statistics - during the analysis of empirical research data, descriptive statistics were used for its processing, systematization, visual representation in the tables, as well as quantitative description through the main statistical indicators.

**Results.** To identify the gender type, the author conducted a survey of girls engaged in basic training groups in children's and youth sports school №1 in Melitopol. Gender identification was determined using S.Bem questionnaires and the Freiburg Personnel Questionnaire (FPI) Masculinity Scale. Questionnaire on the S. Bem test showed that athletes (n = 9) with index (IS) in the range from -0,348 ( $\pm 0.05$ ) to 0,580 ( $\pm 0.05$ ), according to the scale proposed by this psychologist from -1 to 1 , belong to the androgynous type. Athlete (n = 1) with indicators (IS) -1,276 belong to the masculine type, according to the definition of this specialist. According to the FPI questionnaire, athletes (n = 10) scored in the range from 4 ( $\pm 2$ ) to 9 points out of 14 possible, where the number of points indicates masculinity, ie the greater the number of points scored, the more pronounced it is.

Then the data with the definition of gender identification were compared with the data of participation in competitions of different rank for the whole period of training, according to their age and weight categories, which are presented in table № 1.

Table 1. Gender identity and the results of performance at competitions

Test subjects	Index (IS)	Index (FPI)	Gender type	Best competition result		
				Local tournament of Ukraine	National championship among girls	National championship among juniors
Boxer	0,580	4( $\pm 2$ )	androgyny	I		
Boxer	0,232	5	androgyny	I		
Boxer	-1,276	9	masculinity	I		V
Boxer	0	6	androgyny	I		
Boxer	-0,348	6	androgyny		I	
Boxer	-0,232	7	androgyny			III
Boxer	-0,232	7	androgyny			II
Boxer	-0,232	8	androgyny		I	I
Boxer	0,232	5	androgyny	I		
Boxer	-0,116	7	androgyny			I

The data in the table 1, show that most girls belong to the androgynous type. Which differ from the data of Ukrainian scientists, according to which in martial arts the main part of the female sex belongs to the masculine type. This is probably due to the age requirement of the athletes, as most of the experiments described above were performed with female athletes over 17 years of age, although the qualifications of the subjects, compared with the respondents of the above experiments, are approximately at the same level. According to the author, it depends on a homogeneous sample (selection for the sport at the initial stage of training)

contingent; by sport, not by industry (martial arts). The difference in the results of the competitions listed in the table 1 between androgyny and masculinity shows better performance in androgyny. In the author's own opinion, obviously such qualities of masculinity as self-confidence, low anxiety and high self-esteem prevent a more successful performance in competitions in this age group of women's boxing. However, this opinion of the author requires a more detailed individual psychological study of the characteristics of girls boxers. Secondly, purely unusual phenomena, such as a successful draw, also play a good role in the competition. That is, the correlation with performances at competitions is not objective enough in terms of statistics. But according to the table 1, athletes with ndex (IS) from -0,116 to -1,276 and ndex (FPI) from 7 points are the most successful in high-level competitions. **Conclusions.** The study proved the dominance of androgynous and masculine types in various sports in general. The ratio of gender types between individuals engaged in martial arts and boxing is revealed. The data on the dominance of the androgenic type of personality in the younger age groups of women's boxing have been supplemented. For more productive training of gender types in physical and special boxing exercises and forecasting of competitive activity, it is necessary to study individual psychological qualities of a girl-boxer. It is advisable in the subsequent stages of long-term training to conduct repeated tests of girls boxers of this research group in order to determine the progress of masculinization by age and sports experience and sports qualifications.

**Conflicts of interest** – The authors declared no potential conflicts of interest with respect to the research, authorship and publication of this article.

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