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Innovative method for predicting the chances of effective self-defence against physical aggression among children and adolescents based on the results of testing fights in a vertical posture

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Dictionary:

Budo (Budō) – originally a term denoting the "Way of the warrior", it is now used as a collective appellation for modern martial arts of kendō, jūdō, kyūdo and so on. The primary objective of these "martial ways" is self-perfection (ningen- kesei) [6].

Non-apparatus test – that motoric test (exercise endurance test) of the required reliability (accurate and reliable), which use does not require even the simplest instruments [60].

Neo-gladiator – a person who trains mix martial arts (MMA) and similar forms of hand-to-hand fighting that do not meet the definition of sport according to the Olympic Charter [61].

Abstract:

Background and Study Aim: The phenomenon of out-of-sport physical confrontations not only among children is not limited by age, 'weight category', gender, permissible means of physical pressure (this praxeological term also includes hitting) etc. The cognitive aim of this pilot study is to resolve, on the basis of laboratory observations, whether girls are likely to defend themselves effectively against physical aggression from boys their own age.

Material and Methods: In this research, we adopted the option of forming testing group (TG) of either four people based on the following inclusion criteria: participation is voluntary and verbally confirmed by the parent or legal guardian of the minor: in each competition group, at least one person is of a separate gender (e.g. three boys and one girl); no health contraindications; the right to refuse further bouts at any time during the competition; identical calendar age of the participants in each competition group; as little variation in body weight as possible, but not identical; possibility of identical motor tests for girls and boys. We used 'testing fights in a vertical posture' (TFVP) – non-apparatus test: four sumo fights according to the simplified formula, in the system of 'everybody with everybody else'. fight is conducted on a soft surface until one of the competitors wins in four scuffles. The contest area is made of space within a circle with a diameter of 3.6 m. Each scuffle aims at pushing the opponent outside the contest area or making him/her touch the ground with a part of the body other than feet. Prior to the TFVP subjects performed a 'Rotation Test' (RT) not preceded by a warm-up, then, after an individual short warm-up of three trials: standing broad jump, bent arm hang, sit up (30 seconds). Winning fights (F-Index) and the sum of scuffles (the S-Index) were documented. The raw results of the trials were referred to the Physical Fitness Score Tables of Polish Youth winners of the respective competition group.

TFVP was implemented by 6 four-person groups: children aged 7, 8, 9, 10 and 11 years (8 girls and 8 boys). A total of 24 children were observed with TFVP

Results: In the TGs of eight- to 11-year-olds, RP was decided by the number of TFVP wins (Tables 2 to 5). In both TGs of seven-year-olds (Table 5) and TG-9b (Table 6), RP was decided by S-Index differences in the setting of RP 1 and RP 2 and, separately, RP 3 and RP 4. In each of these groups, two children won two TFVPs and two won one TFVP. Among the four children who lost all TFVPs were exclusively boys. Irrespective of the proportion of TFVP wins, only the F-index of children ranked in the first RP is positively correlated very highly (r = 0.748 for directional test) with the overall motor potential index of the MP(4). In addition, the 'hang'

index correlated almost fully with the F-index ($r = 0.984$, $p<0.01$) indicating a very significant contribution of upper limb muscle strength to victories.

Conclusions: The few F-Index associations and the lack of statistically significant S-Index correlations with physical fitness indices are an important premise, that the TFVP is a simple tool for predicting the chances of effective self-defence against physical aggression among children and adolescents. An important methodological finding is that identical physical fitness tests should be used for girls and boys, and the decomposition of raw scores should be based on the norms provided for the age of the TG winner. In further studies, TG should be established with girls and boys with a variety or similarities of empirical variables (e.g. identical age and body weight, different age and different body weight).

Keywords: INNOAGON, non-apparatus test, 'Rotation Test', sumo, testing group

Jurisprudence (also known as **theory of law** or **philosophy of law**) – is the examination in a general perspective of what law is and what it ought to be. It investigates issues such as the definition of law; legal validity; legal norms and values; and the relationship between law and other fields of study, including economics, ethics, history, sociology, and political philosophy [Wikipedia].

CZĘSTOCHOWA DECLARATION 2015: HMA against MMA – 'continuous improvement of health through martial arts as one of the most attractive form of physical activity for a human, accessible during entire life should constantly exist in public space, especially in electronic media, to balance permanent degradation of mental and social health by enhancing the promotion of mixed martial arts – contemporary, bloody gladiatorship, significant tool of education to aggression in a macro scale' [50].

1. Introduction

Physical preparation is a fundamental element in stimulating the motor potential of children aged 8-12 years. This stage of biological and psychomotor growth is a key moment for the formation of basic physical characteristics (strength, speed, agility, anaerobic endurance, i.e. the ability to repeatedly make short efforts) and motor coordination. It is a period of exceptional care to gain confidence in the child's ability to cope with physically competitive situations, especially in direct competition with peers. These are references to when those responsible for the education and all-round development of the child take care to provide adequate, but also attractive and safe stimuli. Although the authors of many scientific and popular publications, but also social activists of physical activity emphasise that physical preparation at this age not only supports somatic development, but also influences the formation of social competences, such as self-confidence, the ability to cooperate in a group and the ability to cope with conflict situations, the recommendations identify almost exclusively with sports mobility [1-3].

In the culture of many Eastern countries, these are references to indigenous combat sports, but also to hand-to-hand-combat systems that do not meet the standards of an international sport for eligibility for Olympic sport status: China – tai chi, kung fu, wushu [4, 5]; Japan – od 1985 curriculum budo (judo, kendo, sumo) within school physical education [6]; Korea – hapkido, taekwondo [7, 8]. In the practice of physical education of some countries of Western civilisation, similar models are at most local in scope or are proprietary programmes [9]. If the reach is wider, it is already within sports classes. And if sport, there is an obvious separation by gender, age, weight etc.

This aspect of the paradox of intercultural dialogue between East and West is pointed out by the authors of the project the 'physiotherapist in every school' [10]. However, this is not the only effect of cultural heritage, where the physical education paradigm is a major element in slowing down development and even negating the support of natural tendencies of dynamic biological changes in the child's body. We claim this because we understand 'development' as a key term of innovative agonology [11-14], and not as a synonym for words, especially such word combinations with the word 'development' that are its overt opposite (e.g. 'pancreatic cancer development', or any other body part).

Science plays a part in this slowing down. It is rightly emphasised that in physical competition, especially between boys and girls, biological and social differences play an important role. Since boys aged 8-12 years are characterised by higher levels of testosterone, it is obvious that they dominate over girls especially in terms of muscular strength and anaerobic endurance, which translates into an advantage in activities requiring high intensity of physical effort. Girls are characterised by greater flexibility, precision of movement and coordination, so it is not surprising that the terms 'grace' and synonyms are more often associated with their physical activity rather than that of boys. Figuratively speaking, the scientific personal background related to the physical education paradigm and, to a large extent, to the numerous concepts of sport science and sport practice formulates, among other things, the following recommendation: different physical characteristics require adapted training programmes that take into account both strengths and areas requiring appropriate stimulation for both genders [e.g. 15, 16].

The recommendation quoted in the last sentence of the previous paragraph is correct in many respects, but it is silent on a key truth from the perspective of neglecting the personal safety of the child. Almost daily media reports report physical violence and aggression between children and elders against children, although often vice versa. This is no longer a sport, so formal health regulations do not apply during physical confrontation in combat sports.

Meanwhile, the possibility of the widespread implementation of physical education fun-forms-of-combat (various synonyms for this psychophysical exercise formula are used [17-20]) into physical education programmes is ignored, and this is perhaps the most important evidence that the phenomenon of the paradox of cross-cultural dialogue we are discussing here has continued unabated since the resurrection of the idea of the Olympic Games and Jigoro Kano's creation of judo as a science and practice of hand-to-hand- combat with health benefits [21, 22]. It is also paradoxical – as pointed out by RM Kalina [22] – that judo, as a science symbolically dated from 1882 [22], preceded the promotion of praxeology (the first edition of the 'Treatise on Good Work' took place in 1955 [23]), it is nevertheless widely recognised as an Olympic sport with a two-stage implementation: 1964 (Tokyo Games as a demonstration discipline), 1972, (officially included in the Olympic Games programme in Munich [24]).

This adherence to tradition leads judo students to regard two forms of training as fundamental: formal exercises (kata) and training bouts (randori), which may be modelled on the regulatory criteria of tournament bouts or modified as to duration, respect for weight categories or deliberate differentiation, etc. Similarly, in Korean taekwondo poomse (formal exercises) versus kyorugi (combat). The empirically proven health potential of fun-forms-of-combat [25-29], but also of prognostic value in the sporting sense [30, 31] and as a criterion for competence and high probability of success in the activity of a certain category of competition [33-37] is unfortunately ignored. Evidence – in the textbooks of the oldest and newest publishing offers of judo and taekwondo, apart from descriptions and illustrations of individual kata or poomse and similarly presented in an analytical manner motor patterns of the so-called combat techniques (some textbooks also contain examples of application of these techniques in self-defence), there are no proposals of fun-forms-of-combat. Although the only limitation of the cognitive nature of such proposals is the imagination, knowledge and previous experience of the author. The formal limitation is the necessity of absolute respect for ethical criteria and concern for personal safety in the health dimension [10].

Meanwhile, the authors of 'Combat sports propaedeutics –basics of judo', which is based almost entirely on the fun-forms of combat, list among its main objectives perhaps the one with the most important adaptive value: 'learning respect the body of one's own and of other people, as well as soft methods of immobilisation of opponent's body' [19, p. 10]. In sport (sports dance aside), there is only one discipline when, in pairs competition, a man and a woman remain in direct bodily contact almost throughout the demonstration of the required motor skills – figure skating. Moreover, there is no room for intentional foul in any of the sport's competitions. Thus, although fun-forms of combat fill this vitally important gap in primary school education to sensitise the child to 'respect the body of one's own and of other people', this proposition of innovative agonology remains beyond the perception of both proponents of the physical education paradigm and coordinators of public health issues from the highest level to that of primary and pre-school principals [10].

The cognitive aim of this pilot study is to resolve, on the basis of laboratory observations, whether girls are likely to defend themselves effectively against physical aggression from boys their own age.

2. Materials and Methods

In this research, we adopted the option of forming testing group (TG) of either four people based on the following inclusion criteria: participation is voluntary and verbally confirmed by the parent or legal guardian of the minor: in each competition group, at least one person is of a separate gender (e.g. three boys and one girl); no health contraindications; the right to refuse further bouts at any time during the competition; identical calendar age of the participants in each competition group; as little variation in body weight as possible (preferably identical body mass); possibility of identical motor tests for girls and boys.

The research project received a positive acceptance of the Bioethics Committee of the Regional Medical Chamber in Rzeszow (Poland).

Participants

TFVP was implemented by 6 four-person groups: children aged 7, 8, 9, 10 and 11 years (10 girls and 14 boys). A total of 24 children were observed with TFVP.

Information on the weight of the test subjects is monitored in the results of the testing groups..

Study design and tools

We used 'testing fights in a vertical posture' (TFVP) – non-apparatus test: four sumo fights according to the simplified formula, in the system of 'everybody with everybody else'. Fight is conducted on a soft surface until one of the competitors wins in four scuffles. The contest area is made of space within a circle with a diameter of 3.6 m. Each scuffle aims at pushing the opponent outside the contest area or making him/her touch the ground with a part of the body other than feet [31].

Knowledge about the quality and results of the TFVP validation procedure is available [38, 39], so we believe that the most general information about the evaluation criteria is sufficient for the perception of the results of this research. Instead, we emphasise the unique aspect of interpreting the results in a collective sense. A ranking position (RP) is not necessarily described by the equivalent of identical raw results. Moreover,

in the case of, for example, three- or five-person testing groups it is sometimes impossible to identify the winner and the last person in the ranking. Anyone can win an identical number of TFVPs with a scuffles ratio of 4:0 and thus be defeated 0:4. Only with any inequality of scuffles is it possible to create a ranking, but not necessarily equivalent to the number of people competing. In this study such an outcome is not possible, but it is likely that two people will win two TFVPs and lose one and two people will win only once and lose twice. The finding of four RPs is possible in circumstances of different proportions of scuffles won by each participant.

Therefore, it is important to document (and monitor during the presentation of results) the winning fights (F-Index) and the sum of scuffles (the S-Index), as they are the basis for interpreting the 'possibility of action' [23, 40] (in the common understanding – effectiveness from the perspective of necessary self-defence against physical aggression: absolute 100%, very high 80-99%, 65-high 79%, aver¬age 50-64%, low 30-49%, very low up to 29%; lack of efficacy (for the F-Index not one fight won, for the S-Index also no scuffle) [38, 39].

The category ‘absolute’ most clearly demonstrates the far-reaching conventionality of equating TFVP results with predicting the effectiveness of defensive actions against physical aggression – to that in this research narrowed down to the peer interpersonal relationships of early childhood children. We emphasise that the symbolism of TFVP contains many elements relating more to the educational process than to evaluation based on models used for combat sports. This difference is even more pronounced when compared to models of ad hoc exercises (courses), as well as offers of permanent self-defence training reduced, however, to the motor dimension. Teaching a child to ‘disarm aggression’ [41-44] as early in his/her life as possible is precisely the overlooked element in the physical education paradigm. This assumption, together with the most general justification, in our opinion, makes it an example of innovative agonology fulfilling an important social mission as an applied science [13, 45, 14] and that in methodological terms it is based on a complementary approach [22, 46].

Motoric potential evaluation

Prior to the TFVP subjects performed a ‘Rotation Test’ (RT) not preceded by a warm-up [47], then, after an individual short warm-up of three trials: standing broad jump, bent arm hang, sit up (30 seconds). The raw results of the trials were referred to the Physical Fitness Score Tables of Polish Youth [48] provided for the boys' standards according to the age of the given TG (from 7 to 11 years).

However, the uniform evaluation criterion covering boys and girls are the scores (based on the T scale) established for boys. This unification of the assessment of the motor potential of participants in individual TGs (from seven to eleven-year-olds) also takes into account the RT result, the norms of which are not differentiated by gender or age [47, 49]. After decomposition on the T scale (Table 1) and summed up with the results of the trials, they are a synthetic measure of motor potential (MP) – an indicator, an arithmetic mean. Each individual result is already a standardised sub-indicator of motoric potential (in brackets the name of the trials/ abbreviation used in Tables and Figures): lower limb muscle strength (standing broad jump/jump); upper limb muscle strength (bent arm hang/hang); abdominal muscle strength (sit ups/sit ups); body balance disturbation tolerance skills (Rotational Test/RT). In addition, in one TG this measurement is extended to include trial shuttle run 4×10 m/run 4×10) measuring agility. The number in brackets after the motoric potential symbol

indicates from how many trials this indicator is calculated – in these studies: MP(4) and MP(5).

Table 1. Transformed raw RT scores to T scale points [49].

raw result 'RT'	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
T scale points	0	6	11	17	22	28	33	39	44	50	56	61	67	72	78	83	89	94	100

Criteria for unification of other indicators

We base the indicators of personal identification based on body weight within the TGs on the criterion of proportion (%) relative to the highest value of the measurement result. If everyone is of the same weight the ratio of this variable of each child is 100%. The statistical evaluation criterion for F-Index and S-Index is the ratio index, so in this way each of the empirical variables falls on a continuum from 0 to 100%.

While it is empirically obvious that the transfer of the raw results of the trials of the children tested to the norms set for both nineteen-year-old girls and boys [48] will only confirm the difference in motor potentials, it will be empirical evidence to argue how important it is to teach children self-defence already within compulsory primary education. It is this result that provides the basis for continuing the discussion on how the child can compensate for these obvious differences in motor potential in the case of adult physical aggression [31, 26].

Statistical analysis

The primary measures of observational data are the proportion ratios (%) calculated as described above and analysed within TGs. Persona correlation coefficients are applicable to larger measurement datasets due to the logical relationships between empirical variables (especially within profiles of homogeneous groups, e.g. TGs leaders).

3. Results

In the TGs of eight- to 11-year-olds, RP was decided by the number of TFVP wins (Tables 2 to 5). In both TGs of seven-year-olds (Table 5) and TG-9b (Table 6), RP was decided by S-Index differences in the setting of RP 1 and RP 2 and, separately, RP 3 and RP 4. In each of these groups, two children won two TFVPs and two won one TFVP. Among the four children who lost all TFVPs were exclusively boys.

Table 2. TFVP evaluation outcome of two eight-year-old girls and boys each (TG-8).

RP	**Gender**	**TVFVP results**		**Body mass (kg%)**	**Motoric potential**				
		F-index	**S-index**		**MP(4)**	**jump**	**hang**	**sit ups**	**RT**
1	girl	100	66	94	66.75	86	62	52	67
2	girl	66	55	100	61	64	61	58	61
3	boy	33	47	97	49.75	48	45	56	50
4	boy	0	37	100	54.75	53	62	48	61

Table 3. TFVP evaluation outcome of two nine-year-old girls and boys each (TG-9a).

RP	Gender	TVFVP results		Body mass (kg%)	Motoric potential				
		F-index	S-index		MP(4)	jump	hang	sit ups	RT
1	boy	100	57	93	60.5	61	59	50	72
2	girl	66	55	100	50.5	54	46	58	44
3	girl	33	45	100	49.25	45	36	60	56
4	boy	0	37	97	50.25	46	67	38	50

Table 4. TFVP evaluation outcome of 10-year-olds: one girl and three boys (TG-10).

RP	Gender	TVFVP results		Body mass (kg%)	Motoric potential				
		F-index	S-index		MP(4)	jump	hang	sit ups	RT
1	boy	100	60	86	54.25	68	61	64	56
2	boy	66	65	100	60.25	66	59	72	44
3	girl	33	45	83	65.75	66	66	64	67
4	boy	0	29	75	53.75	57	50	64	44

Table 5. TFVP evaluation outcome of eleven-year-olds: one girl and three boys (TG-11).

RP	Gender	TVFVP results		Body mass (kg%)	Motoric potential				
		F-index	S-index		MP(4)	jump	hang	sit ups	RT
1	boy	100	57	80	69.25	72	64	78	83
2	boy	66	58	88	58.25	61	57	48	67
3	girl	33	50	100	60.5	48	40	76	78
4	boy	0	33	88	54.25	73	48	40	56

Among the children who won in the individual TG were 5 boys and 1 girl. However, it was the girl who won all the TFVPs, and this result was repeated by three of the 5 boys ranked at 1 RP. Among the TG-9b nine-year-olds, none of them either won all TFVPs or lost all of them, these children stood out for their equal body weight and TG-9b is also the only group of children whose motor potential was measured by five trials (Table 6). The competing seven-year-olds were distinguished by the fact that none of the children either won or lost all TFVPs, and three had identical body weights (Table 7). In contrast, of the four winners of all TFVPs from TG-8, TG-9, TG-10 and TG-11, each was inferior in body weight to the heaviest of the TGs (TG-8 and TG-9a each had two individuals with the highest body weights).

Table 6. TFVP evaluation outcome of three nine-year-old boys and girls (TG-9b).

RP	Gender	TVFVP results		Body mass (kg%)	Motoric potential					
		F-index	S-index		MP(5)	jump	hang	sit ups	run 4×10	RT
1	boy	66	73	100	48.8	66	32	54	48	44
2	girl	66	50	100	57	41	66	64	47	67
3	boy	33	47	100	58.8	53	57	56	61	67
4	boy	33	42	100	51.6	58	32	38	52	78

Table 7. TFVP evaluation outcome of three seven-year-old girls and a boy (TG-7).

RP	Gender	TVFVP results		Body mass (kg%)	Motoric potential				
		F-index	S-index		MP(4)	jump	hang	sit ups	RT
1	boy	66	69	100	53	55	38	52	67
2	girl	66	59	100	57	51	59	58	61
3	girl	33	44	91	53.5	46	45	56	67
4	girl	33	27	100	54	52	49	48	67

Irrespective of the proportion of TFVP wins, only the F-index of children ranked in the first RP is positively correlated very highly (r = 0.748 for directional test) with the overall motor potential index of the MP(4). In addition, the 'hang' index correlated almost fully with the F-index (r = 0.984, p<0.01) indicating a very significant contribution of upper limb muscle strength to victories (Table 8). The same indicators of motor potential and of similar strength, but with a negative correlation with S-index, are evidence that the competing peers resisted very strongly, winning many scuffles (and in TG-7 and TG-9b even one TFVP each). This conclusion is confirmed by the almost full negative correlation (r = −0.962, p<0.01) of the F-index with S-index of the children classified as 1 RP (results are presented in Table 2). Furthermore, the almost full positive correlation (r = 0.993, p<0.01) of F-index with S-index with kg% of the four boys who lost all TFVPs (these individual boys' indices are monitored in Table 6) is evidence that their body weight was the most significant factor in the success of the won scuffles.

Table 8. Correlations of TFVP performance indicators and body weight with overall and sub-indices of motoric potential of children with consideration of ranking position.

Effectiveness TFVP & body mass	Motoric potential indicator				
	MP(4)	jump	hang	sit ups	RT
	six winners of TGs				
F-index	**0.748**^	0.548	**0.984****	0.381	0.538
S-index	**−0.797**^	−0.377	**−0.972****	−0.405	−0.726
kg%	−0.643	−0.332	**−0.807**^	**−0.878***	−0.570

six children classified in 2nd RP					
S-index	0.154	0.711	−0.174	0.301	−0.515
kg%	−0.064	−0.252	0.074	0.720	−0.444
six children classified in 3th RP					
S-index	−0.359	−0.062	−0.402	0.188	−0.483
kg%	−0.526	−0.623	−0.647	0.033	−0.204
four boys who lost all TFVP					
S-index	−0.341	−0.464	0.841	−0.751	0.674
kg%	−0.225	−0.387	0.783	−0.739	0.758

*p<0.05; **p<0.01

The graphical exemplifications of the individual results contained in Tables 2 to 7, combined with the indices of correlated empirical variables (Table 8) subject to direct observation, are not conclusive evidence of the cause of success or failure during peer TFVP modelled on motor principles but not sumo techniques (Figures 1 to 4).

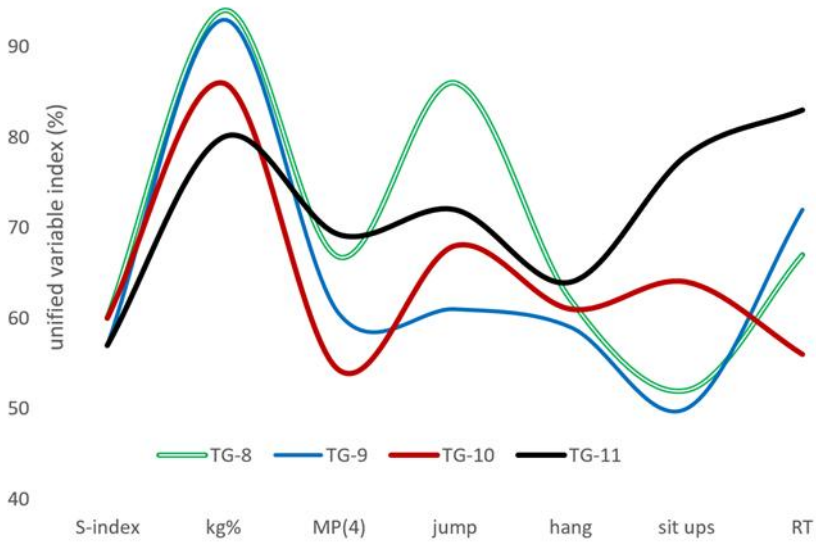

Figure 1. Ratio profiles of empirical variables of the four TGs winners (100% TFVP) – profile of a girl with a double line.

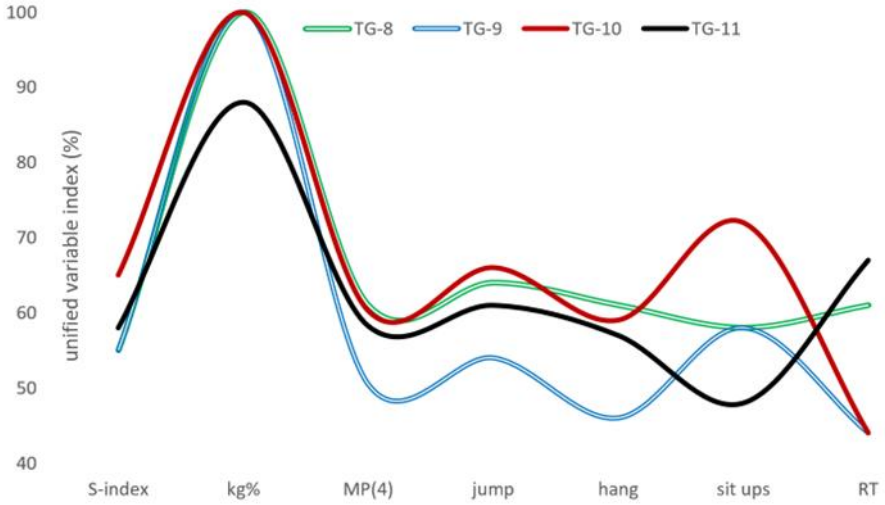

Figure 2. Ratio profiles of empirical variables of six children classified in 2nd RP in individual TGs – profiles of girls as a double line.

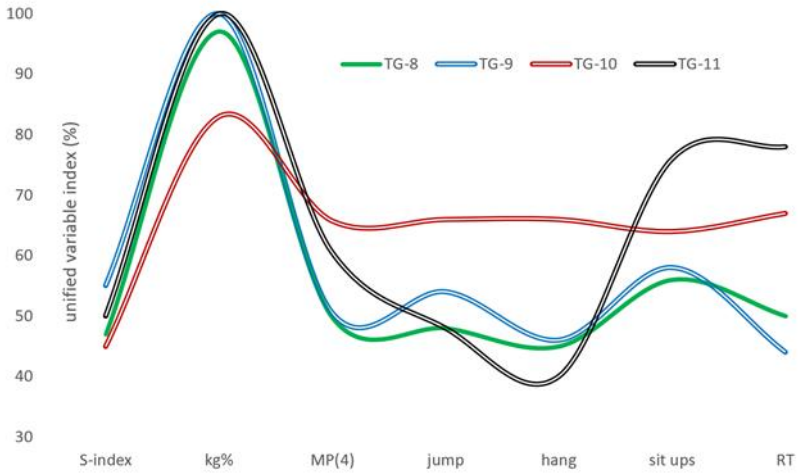

Figure 3. Ratio profiles of empirical variables of six children classified in 3rd RP in individual TGs – profiles of girls as a double line.

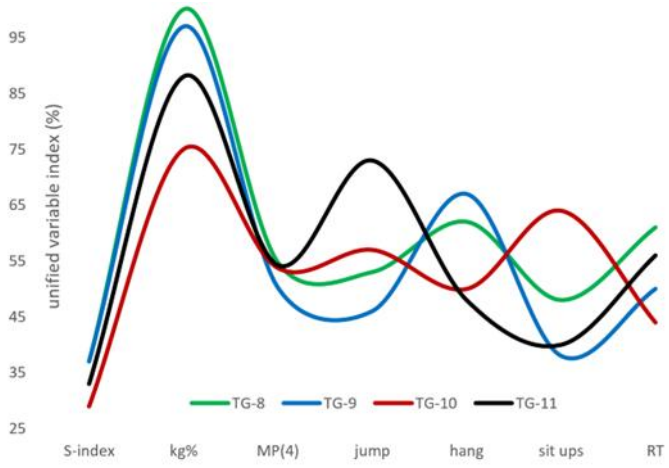

Figure 4. Ratio profiles of empirical variables of four boys who lost all TFVP.

The motoric potential of the boys, leaders TG-7 and TG-9b (Figures 5 and 6), include a decomposition of their raw trial scores and indices, MP(4) and MP(5), respectively, on the Physical Fitness Score Tables of Polish Youth established for nineteen-year-old females and nineteen-year-old males [48].

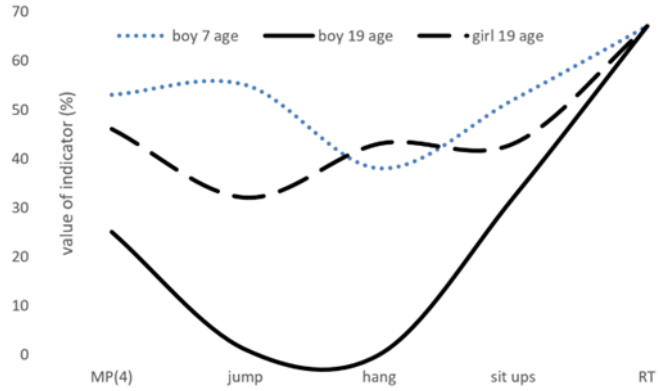

Figure 5. Indicators profile of motoric potential of seven-year-old boy (winner of TG-7), with decompositions into norms established for a nineteen-year-old woman and a nineteen-year-old man according to the criteria Physical Fitness Score Tables of Polish Youth [48].

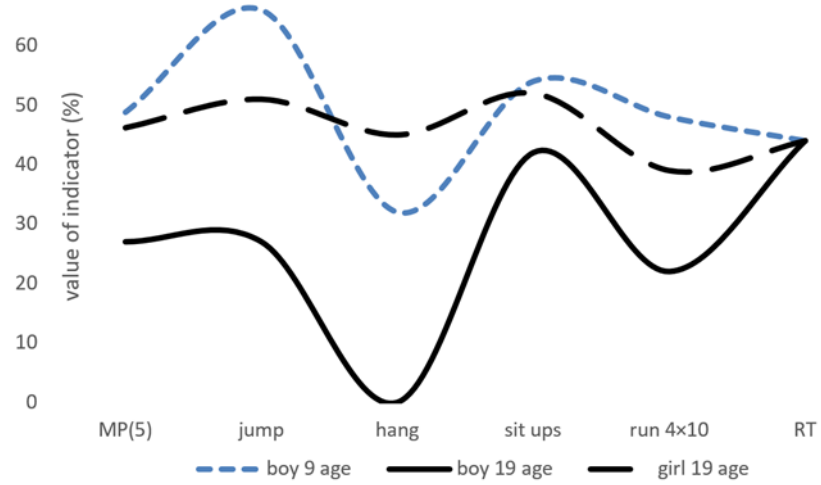

Figure 6. Indicators profile of motoric potential of nine-year-old boy (winner of TG-9b), with decompositions into norms established for a nineteen-year-old woman and a nineteen-year-old man according to the criteria Physical Fitness Score Tables of Polish Youth [48].

4. Discussion

The children participating in these TFVPs have been adults for quite a long time. They belong to generation Z (born between 1996 and 2010). Thus, the result of this research has additional cognitive value. The most general characterisation of this generation emphasises that it is the first to have grown up with access to the Internet and mobile Internet. Among the negative health effects cited are allergies, insomnia, mental illness, but also more frequent cases of intellectual disability and mental disorders than in older generations. Thus, it is also the first generation from which a modest representation of children participated in the friendly, safe hand-to-hand-combat formula of boys against girls and vice versa.

The cognitive value of these research results is reinforced by the circumstances of this idea of organising TFVP, rather than separation, as in combat sports. Moreover, this was also a period of dynamic promotion of neogladiatorism (bloody cage shows), in which the Internet is the biggest contributor (Częstochowa Declaration [50], and Gdańsk Resolution [51]).

The Gdansk Resolution is gaining in importance for public health

Gdansk 2nd HMA World Congress Resolution – Article 1 The white flag with five interlocking "Olympic rings" is the most recognizable symbol in the global public space. Neither did the resurrected idea of Olympia, "Citius, Altius, Fortius" save humanity from the horrors of two world wars, nor did the declared mission of the International Olympic Committee (IOC): "1. (…) the promotion of ethics and (…) ensuring that, in sport, the spirit of fair play prevails and violence is banned" (Olympic Charter, p. 18) stop the pathology of permanently educating contemporary man in aggression. Article 2 Likewise, symbols (a sword pointed downwards surrounded by five rings) and motto ("Friendship through Sport") of Conseil International du Sport Militaire (CISM) did not stop soldiers from killing each other and murdering people after 1948 (the year of establishing CISM, the second largest multi-sport discipline organization after the IOC, and also the year of the Universal Declaration of Human Rights). Article 3 Although there are five identical combat sports in the Olympic Games and the Military World Games, their potential is still not used to meet the second of the Fundamental Principles of Olympism: "(…) to place sport at the service of the harmonious development of humankind, with a view to promoting a peaceful society concerned with the preservation of human dignity" (Olympic Charter, p. 13). Article 4 Boxing and wrestling cultivate the traditions of ancient Olympism. Judo and taekwondo have given martial arts humanistic and health attractiveness. Fencing combines this tradition with modernity in the spirit of chivalry. Aiming dynamic offensive and defensive actions directly at the opponent's body (irrespective of the protectors used) in such a way as not to hurt is a measure of respecting those knightly rules. This rule harmonizes with the principle of respect for the opponent's as well as one's own corporeality and dignity over the vain victory at all costs. Article 5 For the civilized individual and the society for whom human health and dignity are the common good, participation, in any role, in brutal shows of people massacring each other cannot be a standard of the quality of life. Neo gladiatorship camouflaged under the banner of martial arts or combat sports is a slight to the Fundamental Principles of Olympism, but also to the Universal Declaration of Human Rights. Therefore, this Resolution should inspire as many actors of Knowledge Society as possible jointly to oppose any deformations of the mission of Olympism and sport. The expansion of the pathology of unauthorized naming neo gladiators as combat sports athletes will soon turn the Fundamental Principles of Olympism into their own caricature – objective indicators are a testament to the devastation of all dimensions of health by the practice of legal bloody pageants [51].

There was a project to recruit children to the judo section, which involved leading centres across Poland, and candidates performed trials (the results analysed in this paper are an example, although limited to the 24 children observed) ending in TFVP. According to the findings of this project, which was approved by the bioethics committee, TFVPs were to be organised in groups of three to five children (boys and girls separately) of the same age and with the smallest possible weight difference (recommended 3 kg as a limit). The main coordinator of this research and the team of experts involved were surprised by the results coming in from various centres around

the country, some of which (such as those analysed in this paper) contained information on mixed confrontations between boys and girls. The surprise was all the greater because in a not inconsiderable proportion of TGs, the differences concerned not only gender, but also body weight and age. In addition, in a very large number of TGs the participants were only two children, but of one gender, but with a large variation in weight and even age. From the reports of the judo coaches and instructors who conducted observations during the procedure for recruiting children to training groups based on age and gender criteria, it appears that they were not the perpetrators of the extension of the criteria for composing TGs to include the aforementioned deviations. Spontaneous initiatives came from the children themselves ("I want too", "and I", etc.) and the accompanying caregivers accepted the child's choice.

This observational result is also very valuable from a methodological and psychological point of view. Firstly, the willingness to take up judo training at this age is evidence of a high motivation to exercise based on direct bodily contact in a hand-to-hand-combat formula. While it is not known in what proportion of cases the initiative came from the child's social environment, it was ultimately accepted by them. Secondly, it is the initiative coming from the child himself to undertake hand-to-hand-combat with another child, even though he is aware that the age and/or weight differences separating him are more favourable to a potential TFVP competitor, that alludes directly to the praxeological definition of the 'possibility of action' category [23, 40]. Every case of a girl's initiative to undertake a TFVP with a boy (leaving aside the differences in age and weight) is already an event worthy of analysis that also takes into account psychological criteria.

The very definition of 'possibility of action' implies, as it were, such a necessity on a par with the reference to knowledge derived from other specific sciences, but, implicitly, also to accumulated personal experience. 'Possibility action is the strength, intellectual or manipulative prowess, knowledge (skill) and willingness sufficient to perform a given action'. Whereas, 'situational actionability means that the performance of a given action under certain circumstances is not thwarted by those very circumstances' [40].

The possibility of action can be empirically verified in the process of education, training and during other forms of skill acquisition, which can be observed with more or less freedom [52-54]. The results analysed in this work belong precisely to this stage. Similarly, training bouts in any combat sports (in judo called randori). Every tournament fight in combat sports (and not only its final result) already belongs to the category of actions eligible to be evaluated under the methodological criteria of 'situational actionability'. If we take as the ultimate criterion of psychomotor competence associated with hand-to-hand-combat the already impossible-to-precise relation of the effectiveness of self-defence against physical aggression, then every outcome of tournament fights within combat sports becomes an element of evaluating the possibility of action [55-59].

This last sentence refers to the sequence used in the 'Material and Methods' section about teaching a child to 'disarm aggression' as early in his/her life as possible. Aggression is a legally prohibited act, while aggressiveness is a human trait against which the law is powerless, but not science [41-44]. And this possibility is alluded to the phrase 'disarm aggression' – it is only a metaphor referring to 'reducing',

'suppressing' aggressiveness, i.e. a human trait whose external criterion, subject to direct observation, are aggressive acts [42].

These precise methodological categories of 'possibility of action' and 'situational actionability' together with the metaphor of 'disarm aggression', address phenomena outside the physical education paradigm. However, they also raise awareness of the limitations of each of the disciplines of the sciences individually, as well as the formal scope of the use of certain tools in the professional diagnosis of graduates from specialised fields of study. The phenomenon of aggression is the subject of research in psychology, praxeology and jurisprudence. The TFVPs used in this research are, among other things, a motor tool for measuring human aggressiveness, and aggressiveness is the human trait about which 'disarm' is primarily concerned in the metaphor used.

Paradoxically, it is the didacticians of judo who have the formal right to use this tool, leaving aside the issue of whether they know how to measure aggressiveness using the TFVP and other fun forms of combat [18, 19] – this issue goes beyond the paradigm of physical education and the paradigm of success-oriented and only success-oriented sport. It is not a paradox, for formal-legal reasons, that these tools are not available to professional clinical psychologists without obtaining the appropriate qualifications. The method and results of this research can therefore be an important argument in the dialogue on the 'physiotherapist in every school' project [10] as an initial step in replacing the physical education paradigm with the subject of preventive medicine in every type of school.

5. Conclusions

The few F-Index associations and the lack of statistically significant S-Index correlations with physical fitness indices are an important premise, that the TFVP is a simple tool for predicting the chances of effective self-defence against physical aggression among children and adolescents. An important methodological finding is that identical physical fitness tests should be used for girls and boys, and the decomposition of raw scores should be based on the norms provided for the age of the TG winner. In further studies, TG should be established with girls and boys with a variety or similarities of empirical variables (e.g. identical age and body weight, different age and different body weight).

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