POSSIBLE APPLICATION OF BUDO MARTIAL ARTS TO DEAL WITH AGGRESSION AT SCHOOLS

Doctoral dissertation (PhD)

Supervisors

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“A journey of a thousand miles starts with one step.”

*Japanese proverb*

**Introducing the problem**

Since the last century, the rapid development of technical devices, mass media and demographic changes – such as the overpopulation of the Earth - have been contributing to the depletion of resources thus the growth of social inequality and the intensification of social conflicts. These conflicts can be observed not only in the developing countries but in welfare states as well, which has become a burning issue that needs to be dealt with during the past decades.

In most of the cases these conflicts appear in the form of aggression, in all layers of society, it is present in our everyday life. However during the past decades it has been emerging in areas where it could not be found before, or only rarely. Such an area is the area of education that is, the school. As a result of compulsory education the public school system is now a defining social subsystem, where each individual spends a significant amount of time during his or her life. In the institution of school, and already in nurseries and kindergartens, conflicts manifest themselves on a day-to-day basis. In these institutions numerous children have to live side by side in a fairly small space for the major part of the day, which inevitably leads to conflict of interests. Therefore the methods and techniques for handling conflicts and for preventing aggression are crucial for both teachers and students.

ÁÁRY-TAMÁS and his colleagues’ (2010) extensive and representative study on schools aggression revealed that teachers consider the size of the class or groups and the difficulty of providing additional care for problematic kids the possible cause for aggressive behaviour.

„In many cases (...) kindergarten teachers suggested different physical exercises, that are at the same time playful, to ease the tension. (...) Exercises and healthy lifestyle have a beneficial effect on mental development; sports and competition based on it teaches the basics of aggression control for the children. Proper loading facilitates the relief of accumulated tension (...) caused by the environment.” (ÁÁRY-TAMÁS et al. 2010: 194-195)

„During the interviews (...) they many times underlined the role of playful exercises as a tool for dealing with conflicts, since these activities foster situation awareness, decision making, and the acquisition of adaptability.” (ÁÁRY-TAMÁS et al. 2010: 197).
This raises the question: What are the possibilities of solving or moderating an emerging problem?

According to BUDÁVÁRI (2007:130) „The society provides opportunities for diminishing aggression, which are the so called collective roles. The competition of athletes, or even just supporting the national team at a sport event, taking part in a bullfight etc., is all possible means of relieving anger.”

Thus the role of sport and physical education in school has become an increasingly significant as the way of preventing aggression within a supervised framework. Daily physical education and sport, other physical activities and games contribute to our health by conveying psychomotor knowledge and by improving motor abilities. Moreover, through its effects on the personality it consequently stimulates cognitive ability development, the intellect and the psyche.

Aggression, specifically school aggression, is an extremely complex phenomenon. Numerous fields of expertise have been seeking the solution to it. Its complexity, specialists also suggests complex programs that embrace different specialties and ensure long-term prevention.

Obviously these programs need to be integrated into the public education system, including additional fields in its application to make it more effective.

There are several publications in Hungary about school programs dealing with conflict handling and aggression, all placing the emphasis on personality development. These programs and methods may prove to be beneficial for creating an aggression-free communication for students but in our opinion it lacks the complexity that can be achieved through physical activities.

While in September 2012 the Government introduced a law that ensures daily physical exercise in schools for 1st, 5th and 9th grade students, therefore we can rely on the advantageous effects of these physical activities. (2011. CXC. of the National Education Act. In: MAGYAR KÖZLÖNY, 2011.162.).

HÁRDÍ (1992:153) believes that in order of preventing aggression the harmony of family life plays a major role as well as the quality of the mother-child relationship, the father-figure and other social models and in addition, sport is another significant factor. Doing sports and physical activities on a regular basis have tension easing effect but there are social means as well like friendly competition and rivalry. Participants, spectators and fans can all relieve tension at a public game.”
According to BUDAVÁRI (2007:87) „The public opinion about that those who do combat sports is that they are more aggressive than those who do other sports though is a misbelief. Both among wrestlers and boxers we experienced a weaker aggressive urge than in the case of the control group (BUDAVÁRI, 1974). Furthermore, their compunction tension created an obstacle for their ability to combat. Manifest motor activity presumably weakens the aggressive urge, because the open attack behaviour provides a means for living it out. (...) Aggressive combats are more dangerous when a duel does not determined by the win of the better fighter but when the circumstances of the training are manipulated.”

Current thesis does not seek to offer such a complex program or method for handling aggression. It only wishes to provide additional practical suggestions to the already existing theoretical methods in order to ensure a more effective way of cope with aggression in schools. Institutional autonomy and curricula gives several opportunities to acquaint children with new sports and physical activities in their Physical Education class. The dissertation therefore examines, self-defence and combat sports – more precisely budo martial arts – that has been part of the National Curriculum for 16 years, and how it may be possible to apply them; their raison d’être in handling aggression at schools. Eastern budo combat sports and martial arts started to spread in Hungary from the 1970s. Their popularity increased tremendously since then. Since 80s the number of people doing it significantly increased along with those practicing these or similar sports belongs under the same umbrella term. With the use of this popularity it might be easier to make students interested in self-defensive martial arts (budo), which deep eastern philosophy and spirituality can help to develop the personality of students.

The further research question arises: Are those who practices budo martial arts – according to the common belief – are indeed more aggressive than those who do not practice such sports; and if possible, how these physical activities might be integrated into the teaching of physical education classes.

The dissertation, as a result of the topics complexity, can be divided into two major parts: The first deal with the topics theoretical background, the other is first discusses the way this theory can be put in practise after it presents a research. The theoretical part contains definitions of Japanese martial arts and combat sports, as well as their philosophy (Shintoism and Zen), the special training methods of budo martial arts, the description of combat, and a summary of domestic and foreign publications dealing with combat sports and aggression.

The theoretical framework is discussed in this section. In the section we introduce aggression-theories, definitions and the possible forms of aggression at schools. Assertiveness is
included as an achievable positive path and how combat sport should be taught at schools and the process of its inclusion in the curriculum. The analysis in this chapter about the regulations listed in the curriculum about combat sports and self-defence as well as an observation about how these regulations have been carried out in practice at the PE classes (in Pécs) is presented. The last major part of the dissertation deals with the feature aggression of budo martial artists 14 to 18 years of age and school kids who do not practice any sport or at least not budo.

**Objectives**

The primary goal of this dissertation is to present that how combat sports and, above all, budo martial arts might be applicable in schools in order to treat aggression. Too prove – by using exact test methods – that budo martial artists have lower aggression level. This is of paramount importance since there are some negative preconceptions about martial artists. We assume that the reason of this phenomenon that outsiders (regular people) are not familiar with the philosophical background moral requirements and their personality developing effects of the aforementioned sports.

The secondary objective is to introduce the Hungarian and foreign publications in detail about the connection between budo martial arts and aggression, to prove its raison d’être and its actuality as well as to disperse negative stereotypes.

The tertiary objective is to manifest the historical background of the implementation of combat sports into the curriculum in order to remember the work of retired associate professor, Ferenc Galla.

The fourth objective is related to the previous one by the analysis of how combat sports are emphasized in the curricula and how combat sports and self-defence is taught in P.E. lessons. It demonstrates how combat sports are applied in physical education classes in Pécs and its longitudinal analysis.

The final objective is to provide suggestions, based on the findings of our research, about positive effects of the application of combat sports.

**Hypotheses**

We assume that…

- budo martial artists aged between 14 and 18, in all subscales, possess lower indexes of verbal and physical aggression, hostility and anger than their peers (H1),
- Budo martial artists aged between 14 and 18 are have lower overall score of aggression than their peers and which means a lower feature aggression level as well (H2),

- Budo martial artists aged between 14 and 18 show higher value of assertivity, similarly to Nagykáldi (2002) findings (H3).

Furthermore, we assume that there is a negative correlation between aggression and athlete assertiveness (H4).

**Methodology**

To prove these hypotheses we chose a survey (ankét) method. We created two online questionnaires with the help of the online survey program at ripet.hu.

Since our plan was a nationwide, representative research, we chose the online survey method. The reason of choosing this method is that in my opinion an internet based survey creates a better reach to the analysed age group (youngsters between 14 and 18) than the paper format and therefore can cause a greater response rate. Furthermore the method facilitated an easier nationwide data collection.

**Description of the questionnaires**

As mentioned before two different questionnaires were prepared. One for the students (control group – questionnaire no.1) and one for the budo martial artists (questionnaire no.2)

Questionnaire no. 1 has been created for students aged between 14 and 18, containing 38 questions combining general demographic and sociometric data (gender, age, type of school, etc.) and the aggression questionnaire created by Buss-Perry (1992) which was translated into Hungarian and validated for Hungarian publication by Gerevich and his colleagues (2007, 2012).

Questionnaire no. 2 is for 14 to 18 years old budo martial artists (karate, judo, aikido, iaido, jiu jitsu, and other). Besides the demographic and sociometric data, it contains further question about pursuing sports, Buss and Perry’s feature aggression questionnaire (1992), translated into Hungarian by Gerevich and his colleagues (2007, 2012), and Nagykáldi’s assertiveness questionnaire for competitive combat sports (1999 In: Nagykáldi, 2002). In total it contains 69 questions.

The Buss and Perry’s (1992) standardized Aggression Questionnaire (AQ/BPAQ) uses 29 items with 5 level (1= not typical, 5=extremely typical) Likert scale in order to meas-
ure personal characteristic aggression. The final score defines the total feature aggression; it can be also used in the case of its four subscales, which are verbal aggression, physical aggression, anger and hostility. The test has been translated into Hungarian (2007) and validated via several researches by GEREVICH and his colleagues (2007, 2012).

There are several indexes to determine the accuracy of hypothesis testing methods. One of the most common one is the Cronbach’s alpha (1951) which indicates the inner consistency of the questions. The values of the inner consistency of the original English questionnaire were between $\alpha = 0.72$ (verbal aggression) and $\alpha = 0.89$ (aggression score).and $\alpha = 0.72$ (anger) and $\alpha = 0.80$ (physical aggression) questioned twice in a nine week distance from each other (BUSS-PERRY, 1992).

The analysis of the inner consistency of the Hungarian test is also based on the Cronbach’s alpha. The results were: physical aggression $\alpha = 0.82$ and verbal aggression $\alpha = 0.68$, anger $\alpha = 0.70$ and hostility $\alpha = 0.75$ (GEREVICH, 2012). The values of the alpha indicate high inner consistency in the case of physical aggression and hostility while in the case of verbal aggression and anger it was not possible to determine with total certainty. (GEREVICH, 2012:127).

NAGYKÁLDI’s (1999) assertiveness questionnaire (AST) for competitive combat sports contains 30 5 level Likert scale questions measuring the extent of the athlete’s assertiveness. Half of the test is made up of offensive items, while the other half is of defensive ones. Therefore the extent of assertiveness is shown by the overall and individual score of the two subscales. The values of the Cronbach alpha are not public.

The values of the Cronbach alpha sample that we analysed are similar to that of BUSS-PERRY and GEREVICH. In conclusion we can say that the values of the inner assertiveness of Buss and Perry’s aggression questionnaire are equal to the values of the original questionnaire for students (Questionnaire no.1). In the case of budo martial artists (Questionnaire no.2) three subscales – anger, physical aggression and hostility – are highly reliable, but in the case of verbal aggression, just like in the original questionnaire – it is only partly reliable and not at all in ours. The inner consistency values of Nagykáladi’s assertiveness test for competitive combat sports are likewise high in our case.

The entry criteria for both questionnaires was that the responder should be at least 14 years old but not older than 18; and that they should possess Hungarian student status. Thus in the sample the participants were 8th graders of primary schools and 9th-12th graders of vocational schools, secondary schools and grammar schools.
Students or martial artists younger than 14 years old or older than 18 were excluded from the sample. Although martial arts are taught already in the 1st grade the reason for choosing this age group was to ensure that the responders were able to comprehend and to consider the questions; and because this is the age group which tends to be sensitive to school aggression. During the application of the aggression questionnaire in Hungary 7th graders or older students were the respondents (ÁÁRY-TAMÁS and colleagues, 2010 and GEREVICH and colleagues 2012).

Entry criteria for the second questionnaire was, among others, that the respondent should practise a budo martial arts at least three times a week for 1.5 hours per occasion for over a year from the time of the questionnaire. This criterion is important because we believe that it is essential to pursue a combat sport or martial art for at least a year in order to achieve a measurable effect. Training for three times a week is already accepted as the criterion of lowest level when speaking of regular sport activity. Pursuers of other combat sports, such as thai box, boxing, fencing or wrestling have been excluded from the survey since we wish to prove the effectiveness of budo martial arts of Japanese origin with deep philosophical backgrounds. The data collection was undertaken between the 15th May and the end of December in 2011.

Test sample

Using the database of educational institutions from 2009 we contacted headmasters of primary and secondary schools via e-mail in order to seek for assistance. The database was downloaded from the website of NEFMI (www.nefmi.gov.hu/kozoktatasi-intezmenyek/kozoktatasi-feladatokat).

In order to provide the possibility of a representative sample, the emails with the request for the completion of the questionnaires have been sent to all state and non-state institutions found in the database, which means an approximately 3400 emails in total.

It is not possible to estimate the response rate and willingness to response since the request was sent to the headmasters but the responders were the students and anonymity was provided. Respondents were not enquired about the name of their institution, only its type.

A questionnaire called “sportsmen of budo” (questionnaire no. 2) was sent via email to all official budo and martial art federations to ask for help from their presidents. With their assistance all their members received the announcement and ensured us their cooperation such
as the Hungarian Karate Federation, the Hungarian Judo Federation, the Hungarian Aikido-Culture Federation, the Hungarian Jiu Jitsu Federation and the Hungarian Kendo Federation. We used internet search tools (Google) in order to investigate smaller clubs and clubs which are not members of any national federations. In addition, other emails were sent with a link to the questionnaire to addresses from judo yearbooks (2009-2011) and using my own professional and personal connections to clubs and trainers. Heads of department also received the questionnaire.

The questionnaires consisted of closed dichotome multiple answers provided questions or. The respondents were volunteers and the filling was anonymous. The first five questions of questionnaire no. 1 were demographic, two about their sporting habits while the remaining 35 was about the previously mentioned topics. The first five questions of questionnaire no. 2 (sportsmen of budo) were demographic, the following four about sports and martial arts, the remaining 59 about the previously mentioned topic.

Questionnaire no. 1 (concerning students) was answered by 1346 people, after data cleaning 1339 questionnaires were used for the analysis (n=1339). Questionnaire no. 2 (concerning sportsmen) was answered by 156 sportsmen and after data cleaning 149 questionnaire remained (n=149).

Microsoft Excel Starter 2010 and SPSS 20.0 for Windows were applied for cleaning and coding of data.

**Results and conclusions**

We applied several statistical analyses on the sample (such as the correlation analysis between aggression and gender, aggression and sports, school type and aggression, connections between training age, competition, aggression etc.). Here we only have the opportunity to show results in connection with the hypotheses.

By statistical probes carried out on the analysed, high element number sample (n=1339 and n=149), it is proven that subjects between 14-18 years of age pursuing budo martial arts have a lower score of aggression and also a lower value of aggression, hostility and anger than their peers not engaged in other, non combat sports, or in any sports at all (H1 and H2).

The group pursuing budo sports have a lower feature aggression average total score (68.05) than the control group and also shows lower values in the case of each aggression
subscale (anger, verbal and physical aggression, hostility) than the control group. Both in case of the aggression total score and the subscales there is a significant correlation in our sample (p<0.05). The average of the total aggression scores by subjects pursuing budo sports was 66.33 for women and 68.82 for men while in case of students of the same age group women’s relevant score was 74.72 while men’s was 77.77, is. So it is apparent that subjects pursuing budo sports shows lower feature aggression total score, therefore lower personal characteristic aggression according to the BPQA aggression test.

Thus the above we take the above mentioned two hypotheses (H1 and H2) proven. My assumption that subjects between 14-18 years pursuing budo martial arts would show high assertiveness values similar to NAGYKÁLDI’s earlier research results in the assertiveness test for pair combat sports (AST) was not proven; we got lower values compared to the earlier research (H3).

It must be noted, however, that in the case of our research the sample only consists of subjects pursuing budo sports, unlike the earlier researches where primarily judokas, wrestlers and fencing athletes were examined. Subjects pursuing budo sports had an average of assertiveness total score of 86.78, which can be regarded as moderately high. Concerning each form of martial arts, subjects pursuing judo had the highest assertiveness value (90.98), while subjects pursuing aikido had the lowest (82.80) one. These values fall behind NAGYKÁLDI’s results, but we need to remark that he had examined selected competitors, while in our sample this was not an entry criterion. Besides the subjects in our sample were chosen from a younger age group, that of 14-18 years.

Our assumption is that subjects pursuing budo sports are able to transform their aggression into assertiveness, which is they catalyse their aggressive tendencies into assertiveness as positive aggression, was not proven through the correlation test (H4). We did not find any significant connection or negative correlation between the answers given to the Buss-Perry (BPQA) aggression questionnaire and to the questions of the assertiveness test for competitive combat sports (AST).

In our doctoral thesis we made an attempt to disperse the negative stereotypes concerning budo martial arts, and to show that people pursuing these sports for a longer time have a lower aggression level, so the common presumptions stating that these people would be more aggressive is not justified.

By applying exact and objective research methods on a large sample (n=1339, n=149), we proved that subjects pursuing budo sports have lower feature aggression level than their non-sporting peers and the ones not pursuing combat sports. As a result we can say that budo
martial arts and combat sports, with proper professional knowledge, may be used in P.E. lessons without any concerns. For this, however, these forms of exercises must be taught with an appropriate methodology and regularity.

To give a proper theoretical frame of the subject of our research, I presented the most influential Hungarian and international literature on the connection of combat sports, budo martial arts and aggression, together with the different aggression theories, models and types in detail.

We traced the process and historical background of introducing combat sports in physical education lessons to remember the work of Ferenc Galla, retired associate professor, and to show the results of his efforts ended in a long process still undergoing.

In the thesis we also discussed the regulations of combat sports as well as their place and possible role in the national curricula in detail, which we deemed necessary for two reasons. First of all because the topic of combat sports and self-defence has been a part of Hungarian national curricula for only 16 years, therefore we can consider it as a relatively new topic. Secondly because the historical background and the long lasting process of combat sports becoming part of the national curriculum has not yet been a topic of research. We made an attempt to show and analyse the curricular regulations in details in order to reveal the background of P.E. teachers’ insecurity of teaching combat sports, and to point out the possibilities to correct this during teacher training and postgraduate courses.

Since this is a relatively new topic and a modern form of exercise, in the dissertation we also examined the quality of teaching combat sports, self-defence in the practice of P.E. lessons, and how well are the P.E. teachers prepared for this type of education. We carried out our research in Pécs, which means no countrywide representation, but still we think it is sufficient to trace the tendencies and make conclusions concerning personal and material terms. We briefly review the place and aim of combat sports in P.E. teacher training. We have done so, because we consider that state education has a direct influence on the content and approach on teacher training, so we consider this closely related to our topic.

With the brief introduction of its Japanese philosophical background we tried to confirm that budo martial arts have a personality developing effect, which is probably not a subject matter in state educations P.E. lessons. None the less, keeping and transferring certain elements of budo rituals and mentality can have a positive effect on the personality development of students. We consider including and discussing combat sports important while these sports contains significant parts of combat, and are easily applicable in schools even without specific technical knowledge in the given field.
Conclusively we can say that we were able reach our objectives successfully.

**Future use of results, possible further directions of research and recommendations**

Aggression research these days has an evenly growing interest, and encompasses scientists from many different fields. The reason of this significance is that aggression is one of the most accurate problems of today’s societies.

Only a few objective researches have been carried out in Hungary on combat sports and budo martial arts regarding their effects in personality development and aggression reducing. Therefore we think that this thesis, if not fully but at least according to its possibilities, is trying to make up for this absence, and also to trying to disperse the negative stereotypes concerning budo martial arts.

Our questionnaire featuring aggression research and its results may serve as a starting point for further examinations. Therefore the results can be used in comparison with other sports and forms of exercise for similar researches. By rethinking and widening this research topic, and by using follow-up analysis, we can get a more accurate picture on the development of aggression and the possible methods of its treatment. Unfortunately a longitudinal study is currently not possible, on one hand considering anonymity of the survey, on the other hand because of the large sample number. We are planning on similar longitudinal analysis concerning budo martial arts and combat sports. For this research, however it would be necessary by starting and at least after one year of pursuing the chosen sport and in this case the great number of attrition must be considered as well.

A further direction of research may concern the connection between assertiveness in sports and in everyday life. For this, a 30 item questionnaire of “RATHUS (1973) Assertiveness Schedule (RAS)” may be suitable.

The received results definitely support the use of budo martial arts in aggression treatment programmes, possibly even as a new subject started in the freely usable 10% of the national curriculum, to supplement conflict and aggression treatment techniques. The raised number of physical education lessons since 2012 allow us to put a greater emphasis on combat sports as well.

In order of teaching combat sports and martial arts correctly, I consider it necessary to repeatedly phrase the recommendations already mentioned along this thesis.
- Using the raised number of P.E. lessons, physical education teachers should make use of the possibilities in combat sports to treat aggression and conflicts, and to further personal development.

- In the training of P.E. teachers, combat sports should get more importance. For the time being, emphasis should be laid on those combat sports mentioned by directly in the currently valid national curriculum, i.e. judo, ground wrestling, self-defence techniques, and combat exercises and games (and karate as recommendation).

- In teacher training – as well as in physical education in schools - theoretical education should be ensured parallel to the practice.

- Along of raising the number of practical lessons, it is recommended to develop a high standard requirement system.

- Introducing club and federation visits during teacher training, and asking for the help of trainers and specialized trainers should help the practicing P.E. teachers to acquire the knowledge of combat sports and to develop a positive attitude towards it.

- In case of a demand, trainings and courses may be organized with the help of higher education professionals to teachers who have not learned combat sports in their teacher training.

- Professionals (trainers, specialized trainers) employed by the local governments to teach combat sports in schools, and getting involved in the work of afternoon school sports clubs (ISK) and students’ sports clubs (DSK) can be a temporary solution to the problem. Specialized trainers have this possibility since the September of 2013 in case they complete a 120 hour pedagogical programme.

- An important aspect is to develop the equipment conditions at schools. At the same time teaching according to the possibilities should be considered by choosing a curriculum in the given field appropriate for the conditions available.

- In our opinion there should be no difficulties in teaching combat exercises and games. Using such games to develop personality and motoric abilities is highly possible even without any technical knowledge in the given field.

- It is important that future and already practicing P.E. teachers realize the importance of combat sports in education, and the values it can convey for the personal development of children.
- We must make use of the curricular demand to connect fields of education, and also to the cross-curricular possibilities (e.g. philosophy, religious and moral education, biology, physics, history, health education). Also with theoretical education in the given topic.

- Within the freely usable 10% of the national curriculum, it is worthwhile to create classes on conflict-, aggression- and stress treatment. The philosophical background of budo martial arts completed with exercise material (budo pedagogy) is appropriate for this.

- Teachers point of view may be widened by introducing aggression treatment programmes in accredited trainings, including the basis of budo sports and combat sports as an optional complement.
Literature

Publications

Books, Chapters


Studies in peer-reviewed journals and edited volumes


Other Publications on the topic (theses)


Lectures


Lectures on request


Other Publications


Other Educational Lecture


Translation


Proofreading