Social Determinants of Attitudes towards Health in Martial Arts: comparison between combat sports and combat systems and martial arts practitioners


Key words: martial arts, sociology of sport, health

Abstract

Background. The theoretical perspective for this research is inspired by Humanistic Theory of Martial Arts, the anthropology of martial arts, the sociology of health, and the sociology of physical culture/sociology of sport. The indicated approach presents a person practising a particular martial art or combat sport as a psycho-physical-social being, looking for different values and realizing his or her identity by means of the values of a given cultural environment.

Aim. This research poses two research problems. The first research problem attempts to determine the significance of the social dimension of martial arts participation, comparatively, in Poland, the Czech Republic and the United States of America. The second research problem seeks the social determinants of attitudes towards health – the behavioural component.

Methods. Respondents (n=112) were students of martial arts, combat sports and combat systems from the USA, Poland and the Czech Republic. A diagnostic survey was used – Questionnaire of Health Behavior of Martial Arts Students. The variables used for comparison in the chi-square tests were: education, types of martial arts, pro-health choices, cultural area and parental level of education.

Results. Results showed that the level of education, cultural origin and health choices were not related to practising martial arts, combat sports and combat systems. Parental educational level, which is related to the social background, is related to practising combat sports and combat systems or martial arts (non-contact). There are no differences between cultural origin with regard to practising combat sports and combat systems or martial arts (non-contact); 4) There are no differences between cultural origin of people practising combat sports and combat systems or martial arts (non-contact) and healthy lifestyles.

Conclusions. The level of education did not affect respondents’ decisions to engage in practising combat sports and combat systems or martial arts (non-contact). Parenteral educational level, which is related to the social background, is related to practising combat sports and combat systems or martial arts (non-contact). There are no differences between cultural origin with regard to practising combat sports and combat systems or martial arts (non-contact); 4) There are no differences between cultural origin of people practising combat sports and combat systems or martial arts (non-contact) and healthy lifestyles.

Introduction

The theoretical perspective for this research is inspired by Humanistic Theory of Martial Arts, the anthropology of martial arts [Cynarski 2012, 2013b; Cynarski, Sieber 2012; Green 2010], the sociology of health, and the sociology of physical culture/sociology of sport. The indicated approach presents a person practising a particular martial art or combat sport as a psycho-physical-social being, looking for different values and realizing his or
her needs. Therefore an appropriate conceptual language is adopted: in the context of this study, traditional martial arts are defined as "a historic category of flawless methods of unarmed combat fights and use of weapons combined with a spiritual element" [Cynarski, Skowron 2014: 63]. Examples include modern jujitsu, chow gar, goshin-ryu jujitsu, jujitsu styleless, idokan jujitsu, karate idokan, iaido, aikibudo, kung-fu, isshin-ryu karate, jujitsu goshinjutsu, and aikido. The philosophy of traditional martial arts indicates a conditioned attitude towards health and carnality. This philosophy concerns not only the fight itself but also the many values of human life and the meaning of the human path [Kiyota, Kinoshita 1990; Kim, Bäck 2000; Tarabanov 2011; Cynarski 2013b; Shishida, Flynn 2013; Tan 2014]. While combat sport is understood as "derivative of the martial arts traditions of the East or the West, whose distinctive feature is sports rivalry. The fight may be direct (but the rules protect the health of players) or in the form of expression of motion (demonstrational forms). Sometimes there are different formulas for competitive sports (as in kick-boxing) or competitions (as in taekwondo ITF)” [Cynarski, Skowron 2014: 61].

Examples include Mixed Martial Arts (MMA), kick-boxing, judo, and taekwondo1. In turn conception of combat system, such us Krav Maga, is used as “a simplified technical and tactical training programme of hand-to-hand combat or with the use of weapons in a fight at close range, performed especially in the uniformed services (as well as in a popular/commercialized version as a self-defence course)” [Cynarski, Skowron 2014: 61].

Furthermore, the sociology of health, physical culture or sport seeks a way to describe and interpret healthy behaviours, particularly in areas defined as physical culture; leisure time, taking care of one's own body and the hygiene of rest contribute to the “culture of health”. This culture also contains strictly pro-health behaviours, eating habits and attitudes towards drugs. Sport, understood in a broad sense (but not as “competitive sport”), also serves physical culture and health. Nonetheless, sport, which generally serves a different purpose than preserving health, is poorly represented in discussions on this subject [Duda 2001; Michelini, Thiel 2013; Cox 1993; Obeng-Odoo 2012].

In the case of traditional martial arts, however, good health and its positive effects of their practise (efficiency, capacity) are often mentioned. This applies to the beneficial effects on both physical and mental health [Fuller 1988; Galantino et al. 2005; Litwiniuk, Cynarski, Blach 2006; Burke et al. 2007; Litwiniuk et al. 2007; Cynarski et al. 2008; Bin et al. 2010; Tarabanov 2011; Winkle, Ozmun 2003]. In general, “Research topics varied widely, and included health, injuries, competition, morals and psychology, and herbal medicine. Most found positive effects on health” [Bin et al. 2010: 205].

The authors of this study reluctantly use the term “behaviour”, which is still in use, as a result of behaviourism [Manfredo 1992]. A better term to describe the health culture arising from the humanistic paradigm would be “proceedings” as conscious human choices. No less important is the cultural context and values shared by the respondents, which in the case of martial arts have repeatedly been taken into account [Obodynski, Cynarski 2003; Cieszkowski, Sieber 2006; Cynarski, Yu 2011; Cynarski 2012].

In this regard, this research poses two research problems. The first research problem attempts to determine the significance of the social dimension of martial arts participation, comparatively, in Poland, the Czech Republic and the USA. The first research question is as follows: Is the practice of different martial arts correlated with social background? The second research problem seeks the social determinants of attitudes towards health – the behavioural component. The second and third research questions are the following: What do behavioural components and attitudes towards health look like in each group? Are there any differences in the results connected with the country of origin and residence, and if so, what is their cause?

The following four hypotheses were formulated: 1) Education variables differentiate preferences for practising martial arts, 2) The differences in opinions of the respondents from each country are primarily related to educational level and the preferences of practised sports are primarily due to cultural differences, 3) Greater concerns about health steer people towards martial arts that involve less contact, 4) The differences in opinions of respondents from the selected countries concerning health care and martial arts preferences primarily result from cultural differences.

Material and Methods

1. Sample

The research sample was 112 students of martial arts, combat sports and combat systems in Poland (five centres), the Czech Republic (one centre) and the United States (one centre), in groups randomly selected. Those adept at martial arts dominated (79.45% of all respondents) over practitioners of combat sports (19.65%) and combat systems (0.9%). Poles constituted 62.5% of the respondents, whereas Czechs and Americans constituted 18.75% each. Overall, there were significantly more men (74.1%) than women (25.9%) among the respondents, with 25.72% women in Poland, 33.34% in the United

1 Judo and taekwondo are both martial arts and combat sports, but in its present form a paradigm of competitive sports dominates in them [Villamon et al. 2004; Perez-Gutierrez et al. 2015; Yu et al. 2015].
States and 19.05% in the Czech Republic. The average participant age was 21.1 in Poland, 22.16 in the United States, and 27.67 in the Czech Republic. It was assumed that the Poles and Czechs would represent people of an East European cultural area and residents of the United States would represent an American culture.

2. Questionnaire

This research on young people and students on their activities in the field of physical culture and their attitudes towards health (health culture) has taken into account various factors and indicators on the state of activity [Litwiniuk et al. 2004; Cynarski et al. 2014]. There are current attempts to determine and standardize research tools such as Health Behaviour in School-aged Children (HBSC) questionnaires [Woynarowska, Mazur 2012], to analyse the health behaviours and selected health indicators of schoolchildren. The Health Behaviours of University Students Questionnaire (HBUSQ) [Litwiniuk, Grants 2010] is an adaptation of the HBSC study. However, the Questionnaire of Health Behaviour of Martial Arts Students (QHBMAS) [Cynarski et al. 2011; Cynarski, Zeng 2011] has been adapted to the HBUSQ for environmental studies of people practising martial arts in terms of their attitudes towards health. Hence, the authors of this article adopted a QHBMAS questionnaire [Cynarski et al. 2011], which has been previously tested in studies in several European countries, China (PRC) and the United States2. According to the survey methodology, the final version of the QHBMAS was preceded by a pilot study. Also, research in several countries showed that the questionnaire is well understood by respondents. Respondents fill the QHBMAS by selection of one (thirty-three questions) or multiple choices (nine questions) [Zeng et al. 2013a: 84].

The QHBMAS is composed of fifty questions divided into five thematic blocks. The first block contains personal data. The second concerns leisure time activities. The third block refers to eating habits, the fourth to health risk behaviours, and the fifth to hygiene. Health-related elements in the survey included 1) regular consumption of meals, 2) eating between three and five meals a day, 3) consumption of fruit and vegetables, 4) eating fish at least once a week, 5) not adding salt (or the infrequent use of salt) to dishes, 6) limited or (“partially limited”) consumption of sweets, 7) consumption of wholemeal bread, 8) eating at least three or four meals a week containing meat, 9) not smoking cigarettes, 10) not using illicit drugs (inhalants, marijuana/hashish, amphetamine, LSD, cocaine, ecstasy and others), 11) not using anabolic steroids, 12) daily cleaning of the entire body, 13) washing hands before every meal, and 14) brushing teeth at least once a day and with 15) specific products.

3. Variables

The variables used for comparison were: education, pro-health choices, cultural area and parental level of education. In each case, there were two categories, because types of martial arts as were criteria for comparison.

Martial arts, combat sports and combat systems were divided according to their contact intensity. Category “Combat sports and combat systems” included MMA, kickboxing, judo, taekwondo, and Krav Maga. “Martial arts (non-contact)” included modern jujitsu, goshin-ryu ju jitsu, jujitsu styleless, idokan jujitsu, karate idokan, karate isshin-ryu3, taido, goshinjutsu, ju jitsu, chow gar, aikibudo, kung fu, and aikido.

Regarding education, the level of education of respondents was divided into higher education and high school education or less. Furthermore, in the questionnaire the characteristic responses for healthy behaviour were selected. A pro-health behaviour was considered when respondents 1) have from two to four (and more) hours free time in a week day, 2) have from five to six (and more) hours free time in a weekend, 3) doing physical activity twice a week and more, 4) doing travel for tourist reasons during an academic year four and more, 5) always doing travel for tourist reasons on winter/summer holidays, 6) always spend theirs time (while on holiday) actively, 7) eating regulary, 8) eating four or five meals a day, 9) not taking any supplement or pharmacologists substances, 10) eating fruits and vegetables, 11) eating fish, 12) not adding salt to their dishes, 13) trying to cut down on the amount of sweets, 14) drinking one or two glasses of milk (or dairy poroduct) a day, 15) eating a wholemeal bread, 16) eating form one to four dinners with meat in a week, 17) not drinking alcohol, 18) not smoking cigarettes, 19) not using any psychoactive substances, 20) not using anabolic or similar substances, 21) taking a shower everyday, 22) washing hands more than once, 23) washing teeth every day and 24) using extra hygiene mouth.

Anti-health behaviour was considered when respondents 1) have less than two hours free time in a week day, 2) have less than six hours free time in a weekend, 3) doing physical activity less than twice a week, 4) doing travel for tourist reasons during an academic year less than four, 5) not always doing travel for tourist reasons on winter/summer holidays, 6) not always spend theirs time (while on holiday) actively, 7) eating irregularly, 8) eating less or more than four or five meals a day, 9) taking any supplement or

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2 According to the survey methodology, a tool preparation was preceded by a pilot study. Research in several countries has shown that the questionnaire is well understood by respondents. Validity was not specified because it is generally not practised in this method.

3 Both karate Idokan and Isshin-ryu reject sport competition.
10) not eating fruits and vegetables, 11) not trying to cut down on the amount of sweets, 14) drinking less than one or two glasses of milk (or dairy product) a day, 15) not eating a wholemeal bread, 16) eating more than one to four dinners with meat in a week, 17) drinking alcohol, 18) smoking cigarettes, 19) using any psychoactive substances, 20) using anabolic or similar substances, 21) taking a shower less than everyday, 22) washing hands less than once, 23) washing teeth less than every day and 24) not using extra hygiene mouth.

For the variable “cultural area” American and East European cultures were adopted as the two categories. Finally, it was also essential to examine the auxiliary hypothesis that assumes the practice of different types of martial arts is correlated with a social background. It was thus concluded that the social background of a person will be determined by 1) personal level of education, 2) parental level of education, and 3) profession [Gillbert 2014: 10-11]. It was assumed that these indicators are associated with membership to a particular social class, expressed *inter alia* by socio-professional categories [Gillbert 2014: 10-11]. In this case, the social layer is divided into middle, higher and lower classes. However, due to the lack of responses concerning acquired and performed parental professions and the previously analysed level of practitioner education, the survey was limited to merely describing the parental level of education as a factor for determining the social background of the respondents.

### 4. Procedure

A diagnostic survey method was used for this study. A purposive sampling of centres (clubs, schools) was used with a random sample of participants. Respondents (n = 112) were students of different martial arts, combat sports and combat systems from the USA, Poland and the Czech Republic. The tool was administered in groups practicing the combatives in 2013-2014 by the authors. All respondents agreed to participate on it.

This study was approved by the Ethics Committee of Idokan Poland Association (IPA) beforehand.

### 5. Statistical Analyses

Descriptive statistics were used for the data analysis. A chi-square test was used to verify the hypotheses. The level of significance was set at $p < 0.05$.

#### Results

Table 1 shows the distribution of respondents among the categories (Results with Yate’s correction).

<table>
<thead>
<tr>
<th>Type of Martial Arts</th>
<th>Combat sports and combat systems</th>
<th>Martial arts (non-contact)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education</td>
<td>89 (79.5%)</td>
<td>23 (20.5%)</td>
</tr>
<tr>
<td>Higher</td>
<td>45 (40.2%)</td>
<td>14 (12.5%)</td>
</tr>
<tr>
<td>Less</td>
<td>44 (39.3%)</td>
<td>9 (8.0%)</td>
</tr>
<tr>
<td>Health choices</td>
<td>23 (20.6%)</td>
<td>89 (79.4%)</td>
</tr>
<tr>
<td>Pro-health</td>
<td>17 (15.2%)</td>
<td>67 (59.8%)</td>
</tr>
<tr>
<td>Anti-health</td>
<td>6 (5.4%)</td>
<td>22 (19.6%)</td>
</tr>
<tr>
<td>Parental level of education</td>
<td>75 (67.4%)</td>
<td>37 (32.6%)</td>
</tr>
<tr>
<td>Up to Secondary School</td>
<td>49 (44.2%)</td>
<td>15 (13.4%)</td>
</tr>
<tr>
<td>Higher</td>
<td>26 (23.2%)</td>
<td>22 (19.2%)</td>
</tr>
<tr>
<td>Cultural area</td>
<td>23 (20.5%)</td>
<td>89 (79.5%)</td>
</tr>
<tr>
<td>American</td>
<td>7 (6.3%)</td>
<td>14 (12.5%)</td>
</tr>
<tr>
<td>East European</td>
<td>16 (14.2%)</td>
<td>75 (67.0%)</td>
</tr>
</tbody>
</table>

Note: $n = 112$

Source: Own research.

Table 1. Distribution of respondents among the categories considered in the study.

#### Discussion

The state of knowledge is this area is limited. Although there are environmental studies of martial arts that address active lifestyles and systematic (often daily) training [Cynarski, Yu 2011] as well as conscious activity in pharmacologists substances,
healthy lifestyles [Cynarski et al. 2012; Boguszewski et al. 2014], there is little research that utilises a QHBMAS tool.

Larger American-Chinese-Polish studies of this type were carried out with the use of QHBMAS and implemented in the People's Republic of China. Based on the results of the young Chinese people practising wushu [Zeng et al. 2013a, b] it was found that the residents of East Europe and American culture areas performed better (the “health” and “nutrition” factors).

The similar results of Central-European and American research reported in this study may result from the cultural similarities of Western countries. Differentiating cultural factors can only enhance the comparison of different cultures. By contrast, choosing combat sports and combat systems or martial arts (non-contact) may be conditioned by temperament levels and other factors.

Conclusions from Vertogenhen and Theeboom’s [2010: 535] study stated that “Hence, it can be assumed that participants’ socio-economical background might also have an influence on the type of martial arts involvement”. Especially important is exactly description of differences among the adepts of the martial arts, combat sports and combat systems from different social and cultural areas.

This study found the following: 1) The level of education did not affect respondents’ decisions to engage in practising combat sports and combat systems or martial arts (non-contact); 2) Parental educational level, which is related to the social background, is related to practising combat sports and combat systems or martial arts (non-contact); 3) There are no differences between cultural origin (Central Europe and the USA) with regard to practising combat sports and combat systems or martial arts (non-contact); 4) There are no differences between cultural origin of people practising combat sports and combat systems or martial arts (non-contact) and healthy lifestyles.

This study should be treated as a preliminary stage for the issues undertaken because of the assumptions made and a set scope of the study. It includes only one important element of the category “social background” (cultural capital), while a few US respondents does not allow to draw radically formulated generalized conclusions.

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**References**


Słowa kluczowe: sztuki walki, socjologia sportu, zdrowie

Abstrakt
Podstawa teoretyczna. Perspektywa teoretyczna dla tego badania inspirowana jest przez Humanistyczną Teorię Sztuki Walki, antropologię sztuk walki, socjologię zdrowia i socjologię kultury fizycznej/socjologię sportu. Cel. W badaniu tym poruszone dwa problemy. Pierw-