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Improving First Aid Education through Analysis of First Aid by MARTIAL ART field

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Abstract

Martial art field is composed of trainees, training facilities, and field. In Martial art field, judgments of instructor and safety awareness have considerable amount of influence on the trainees and the players. Therefore, current research would propose a way to enhance safety awareness of the leaders, trainees, institutions and first aid education.

First, practical lecture has to be prior to the theory based education. Also, first aid education needs to be changed from general emergency education to education specifically for each martial arts. Moreover, mandatory certificate is required for assistant instructors. When the instructor is absent, making safety management system manual for the trainees would be essential to react the emergency situation. At the same time, ability of reacting against emergency situation and its educations are necessary along with technical instruction for normal situation.

Second, evaluation and education of instructors' emergency certification, overall social awareness, and change of awareness on possible danger of training are needed. In addition, professional knowledge of emergency aid is required for each instructors.

Third, management and supervision over safety supplies and facilities should be mandatory and regulated along with furnishing and integration of basic emergency kit.

Fourth, improvement on gym insurance policy is needed. Also prevention program for emergency education system and safety related program should be developed.

[Keywords] *Martial Arts, First Aid, First Aid Education, Safety, Education*

1. Introduction

Martial art field is composed of trainees, training facilities, and field. In Martial art field, judgments and safety awareness of instructors have considerable amount of influence on the trainees and the players. In addition, martial arts players and trainees are exposed to variety of possible danger while training[1].

Intense training caused by excessive competition among trainees or other various possible dangers on the field causes considerable amounts of emergency situations[2]. Especially, popular competitive sports in modern

society such as Judo and Taekwondo cause various injuries. For example, Judo players frequently experience sport injuries such as nerve damage by shoulder dislocation[3], dislocation of distal ulnar fracture[4], full thickness of hamstring tendon[5], aneurysm and dissection of vertebral artery[6], arthritis of finger and toe[7], brain damage[8]. Additionally, Taekwondo players have traumatic brain damage along with the injuries above[9].

A case reports that 23 years old Israeli University Taekwondo player fainted during the game because of the kick by the other player during the competition. The player was taken

to a hospital, but went into a coma, not able to react to sense and movement. Cases of various injuries and traumatic injuries are examples why the emergency education and ability of the instructors to react those emergency situation are important[2].

Therefore, current research would propose an improved model to enhance safety awareness of the leaders, trainees, institutions and first aid education. Survey was used to analyze first aid knowledge and current status of first aid education of martial art specialists. (With the help of Professors, instructors, assistants from the universities which have martial art majors) Five hundred martial arts major students from universities located in Seoul, Kyunggi Province, and Chungchung Province participated for the research. Participants were major in Judo, Taekwondo and Yongmoodo, Five hundred martial art specialists were recruited for the research. Thirty eight participants who responded carelessly or partially were excluded, and 462 survey respondents were included in analysis. SPSS WIN Version 16.0 program was used for analysis.

2. Analysis of First Aid Education Status of Martial Art Specialists

2.1. Experience of first aid education and education institution.

<Table 1> show that number of professionals who have educated first aid was 226(48.9%) while 236(51.1%) was not. Majority of martial art specialists took first aid education on universities(115 respondents, 50.8%). Sixty five(28.7%) participants answered that they have got the education in pre-university institutes, 2 respondents(0.8%) at a seminar and 44 respondents(19.4%) took an education at the other institution.

Table 1. Experience of first aid education and education institution.

Contents	Item	N(%) (N=426)

Education experience	Yes/No	226(48.9)/236(51.1)
Education institution	Pre-university schools	65(28.7)
	University	115(50.8)
	Seminar or other institutions	2(0.8)/44(19.4)

Note: Excluded non-responses.

2.2. First aid instructor and period

<Table 2> show that most of the martial art specialists indicated that they were educated by their professors and instructors of the class(105 respondents, 16.4%) or physical education teachers and health education teacher(70 respondents, 30.9%) while only 10 respondents(4.4%) reported that they got it from martial art instructor and 41 respondents(18.1%) answered instructor from the other institutes.

Majority of the professionals(149 respondents, 64.9%) answered that they have educated was near than a year; near than 3 months was 53 respondents(23.4%), 6 months was 51 respondents(22.5%), near than a year was 45 respondents(19%) while 77 of them(34%) answered they have got education more than a year ago.

Table 2. First aid instructor and period.

Contents	Item	N(%) (N=426)
First aid education instructor	College professor or instructor	105(46.4)
	PE or health education teacher	70(30.9)
	Martial art instructor/Other instructor	10(4.4)/41(18.1)
Period of education	Within 3 months	53(23.4)
	Within 6 months	51(22.5)
	Within a year	45(19.9)
	More than a year ago	77(34.0)

Note: Excluded non-responses.

2.3. Contents of education and method

<Table 3> show that according to the survey with multiple responses, most of martial art specialists(87.9%) have received education on CPR(204 respondents, 56.8%) or surgical first aid(112 respondents, 31.1%). Participants also have taken internal first aid(43 respondents, 11.9%) or theoretical education(46 respondents, 20.3). Most of the respondents have received education based on theories and practical theories; theory-based(46 respondents, 20.3%), practice-based(40 respondents), theories and practice based(139 respondents, 61.5%) and the others(1 respondent, 0.4%).

Table 3. Contents of education and method.

Contents	Item	N%(N=426)
Contents of education (Multiple response)	CPR	204(56.8)
	Surgical first aid	112(31.1)
	Internal first aid	43(11.9)
Method of education	Theory-based	46(20.3)
	Practice-based	40(17.6)
	Theory and practice/others	139(61.5)/1(0.4)

Note: Excluded non-responses.

2.4. Number of first aid education session and problems of first aid education

<Table 4> show that one of the most important problem that the professionals who have educated pointed out was the lack of training sessions(75 respondents, 31.1%). The following others were need for professional contents(68 respondents, 30%), lack of supplement materials and equipment for practice(50 respondents, 22.1%), need for easier level of education(20 respondents, 8.8%), requiring more use of visual materials(13 respondents, 5.7%).

Most of the participants responded that number of education session is not enough. About the number and frequency of first aid

education session, 96 respondents(42.4%) responded 'It is vary not enough.', and 80 respondents(35.3%) said 'It is moderate.' 24 respondents(10.2%) said 'It is too short.' 22 respondents(10.0%) said 'It is enough.' Only 4 respondents(1.7%) said 'It is very enough.'

Table 4. Number of first aid education session and problems of first aid education.

Contents	Item	N%(N=426)
Problems	Lack of visual materials	13(5.7)
	Need for easier level of education	20(8.8)
	Need for professional education	68(30)
	Lack of Education time	75(31.1)
	Lack of education materials and equipments	50(22.1)
Education time	Vary enough	4(1.7)
	Enough	22(10.0)
	Moderate	80(35.3)
	Not enough	96(42.4)
	Vary not enough	24(10.2)

Note: Excluded non-responses.

2.5. Reasons of absence on the education and participation

<Table 5> show that the reasons why the martial art specialists did not or could not get the education were the followings; 'Felt the necessity of education but could not have opportunity to participate'(176 respondents, 74.5%), 'Felt the necessity of education and had opportunity to participate but could not participate because of the personal excuse'(7 respondents, 2.9%), and 'Did not feel the necessity of education and had no opportunity'(1 respondent, 0.4%). It appears that majority of respondents could not participate because of the lack of opportunity or personal excuse even though they felt the necessity of education. Also, 231 respondents(97.8%), which is majority, answered that they would participate the education if they

have another chance in the future while 5 respondents(2.1%) answered that they would not.

Overall awareness of necessity and demand of first aid education among martial art professionals were high. It reflects the circumstantial feature that martial art specialists frequently encounter the emergencies in the real field.

Table 5. Reasons of absence on the education and participation.

Contents	Item	N(%) (N=426)
Reasons of not taking first aid education	Lack of chance	176(74.5)
	Personal issue	53(22.4)
	Did not feel necessity	7(2.9)
	Did not feel necessity and lack of chance	1(0.4)
Opportunity of first aid education	Yes/no	231(97.8)/ 5(2.1)

Note: Excluded non-responses.

3. Improvement Proposal of the First Aid Education

3.1. Improvement proposal of the first aid education in the field

The problem that there is no improvement on the first aid education which is a part of instructors' qualification was pointed out. Even in the past, lots of professionals felt the lack of interest which was caused by theoretical education and general first aid education which is not related to the martial art injuries and lack of practices which was caused by limited number of materials and time that trainees can actually practice. Increase the portion of practical education sessions and instructors who understand and majored in martial arts is required since the instructors encounter various emergency situation in the

actual field. Also, qualification and certification of assistants are not managed and it appears to be one of the main problem. It is possible that not qualified assistants cannot perform appropriate first aid to the young, growing teenagers in case of the emergency and finally end up with severe danger. Therefore, the mandatory certificate of assistants is necessary and when the instructor is absent, making safety management system manual for the trainees would be required to react the emergency situation. In normal situation, ability of reacting against emergency situation and its educations are necessary along with technical instruction.

3.2. Improvement of awareness and license of instructors

In Korea, no domestic institute issues the instructors' certification with limited valid period. Martial art instructors are exposed high level of encountering injuries. However, martial art instructors in Korea has unlimited period so the instructors are not expected to get reeducation or reevaluation on first aid response. It certainly is a problem that the license is maintained forever without any additional qualification

In Australia, the United States of America, and the England, which are the advanced countries for sports, if the instructors want to maintain their certification to be validated and work as instructors, they have to be reeducated every year or every certain period. One of the qualifications that is mandatorily included in the curriculum is first aid. Therefore, it is suggested to change the domestic policy to be impossible to extend the certification without taking extra first aid training on every certifications. Changing awareness of instructors in the field is also important. In the current status of overall social awareness and dodging risks of martial arts, not only on the leading instructors' awareness but safety system of overall domestic society's awareness is required to be changed. Moreover, instructors are need to have professional knowledge of first aid so that they can perform appropriate first aid and look after their students' safety. Changing awareness of the

instructors' would change the level of safety and environment of the field.

3.3. Improvement of safety system inside of martial art education fields

Currently, each martial art training facilities has different first aid equipment and some of the facilities even do not have any equipment. Lack of managing licenses of assistant instructor is the problem of front of martial art training facilities. There are several safety and instructor regulations for training facilities, but management or supervision on those regulations are not well done. According to the training facility regulations, each facilities are required to equip first aid kits. However, the regulation is not being observed well. In addition, according to the 'Training Facility Establishing Standard', Item eight, each facilities only required to have medicines for emergency, but do not mention about details. Therefore, safety equipment and systems are needed to be mandatory for all of the facilities, and being supervised.

3.4. Improvement for government and association

Currently, on the laws about establishing and use of training facilities, martial art training facilities are excluded for insurances. There are sue cases about medical fees of injuries during the martial art training or competition. Mandatory insurance policy could minimize medical expense problem. At the same time, the government need to address regulations on training facilities, especially about instructors and establishing, suit for martial arts. It would enable trainee safe training environment.

4. Conclusion

Martial art field is composed of trainees, training facilities, and field. In Martial art field, judgments and safety awareness of instructors have considerable amount of influence on the trainees and the players. Various injuries and traumatic injuries cases during martial art training or competition emphasizes importance of first aid education and re-

action of instructors. Therefore, current research would propose several suggestions to improve awareness of safety and first aid education.

First, practical lecture has to be prior to the theory based education. Also, first aid education needs to be changed from general emergency education to education specifically for each martial arts. Moreover, mandatory certificate is required for assistant instructors. When the main instructor is absent, making and educating safety management system manual for the trainees would be essential to react the emergency.

Second, first-aid qualification or education for martial art instructors are required. Awareness on danger of martial art training and necessity of first aid or safety issues are need to be changed. At the same time, professional knowledge on first aid are required.

Third, equipping first aid kit and supervising overall safety equipment and facilities must be mandatory and regulated.

Finally, insurance policy on martial art facilities are required to be reformed. First aid education for martial art instructors and prevention programs on safety issues are need to be invented.

5. References

5.1. Journal articles

- [1] Kujala UM & Taimela S & Antti-Poika I & Orava S & Tuominen R & Myllynen P. Acute Injuries in Soccer, Ice Hockey, Volleyball, Basketball, Judo, and Karate: Analysis of National Registry Data. *BMJ*, 311, 1465-1468 (1995).
- [3] Jerosch J & Castro WHM & Geske B. Damage of the Long Thoracic and Dorsal Scapular Nerve after Traumatic Shoulder Dislocation: Case Report and Review of the Literature. *Acta Orthop Belgica*, 56, 625-627 (1990).
- [4] Russo MT & Maffulli N. Dorsal Dislocation of the Distal End of the Ulna in a Judo Player. *Acta Orthop Belgica*, 57(4), 442-446 (1991).
- [5] Kurosawa H & Nakasita K & Nakasita H & Sasaki S & Takeda S. Complete Avulsion of the

Hamstring Tendons from the Ischial Tuberosity. A report of Two Cases Sustained in Judo. *Brit J Sports Med*, 30(1), 72-74 (1996).

- [6] Lannuzel A & Moulin T & Amsallem D & Galmiche J & Rumbach L. Vertebralartery Dissection Foll Wing a Judo Injury: A Case Report. *Neuropediatrics*, 25(2), 106–108 (1994).
- [7] Oka Y. Debridement for Osteoarthritis of the Elbow in Athletes. *Int Orthop*, 23(2), 91-94 (1999).
- [8] Owens RG & Ghadiali EJ. Judo as a Possible Cause of Anoxic Brain Damage: A Case Report. *J Sports Med Physical Fitness*, 31(4), 627-628 (1997).
- [9] Cohen JE & Margolin E & Moscovici S & Paldor I & Itshayek E. Life-threatening Massive Subarachnoid Hemorrhage after Taekwondo-associated Head Trauma. *Isr Med Assoc J*, 12(8), 509-510 (2010).

5.2. Thesis degree

- [2] Park SB. A Reform Measure for the First-aid Education and the Safety Supervision System on the Martial Arts Items. Yongin University, Doctor's Thesis (2014).

5.3. Additional references

- [10] <http://emjas.com> (2018).

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- The Relationship between Folk Ssireum Players' Self-leadership, Passion and Satisfaction, *The Korea Society of Sports Science*, 23(5) (2014).

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