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FISRT AID TO FAINTING USING MASSAGE TECHNIQUE OF ACUPUNCTURE SYSTEM

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ABSTRACT
Fainting is a condition of loss of consciousness that is closely related to activities that involve physical strength as the main component, such as sport and physical education class, flag ceremony, or sport competition. Fainting can happen to all ages and sexes so that there is always anxiety for that condition in such activities. Fainting/syncope is a condition where consciousness is about to lose or totally lose consciousness temporarily, like asleep instantly in short time. In some occasions, preventive actions are often ignored before fainting occur. Body position, head injury, or disease of the patient are frequently unanticipated. Therefore, it's very important to provide first aid treatment to fainting people immediately.

Massage technique of acupuncture system can be a recommended treatment to help fainting people aware quickly. This method does not need needle or other equipments, merely use the tip of the finger (of middle finger) to vibrate the acupuncture point (acu-point) on the patient's face. The acu-point is located on a special meridian knot (TU 26) under the nose, one third point from the nostril to the side of the upper lips.

Keywords: Fainting, massage technique of acupuncture system, fainting treatment procedure

INTRODUCTION
One condition that become fear among students and teachers of physical education is fainting. Fainting might cause a student less confident to participate in the PE class or other physical activity. It also disturbs someone to do his/her sport hobby that might cause distress. Fainting may be associated with students activities or sportsman. Many fainting cases occur on physical activities or direct-contact sports such as football, basketball, or martial art, though standard safety equipment have been equipped.

Fainting symptom can attack anywhere without considering the age, sex in all conditions, whether doing hard or light activity. Acupuncture science illustrate that someone is fainting due to physical conditions, such as exhausted, thirst or starving, or disease factors like epilepsy, diabetes, and else. Fainting is not only attack on PE activity or sport activities as mentioned earlier, but also on outdoor ceremony or indoor activity that conducted in a very crowded room. Therefore, PE teacher should know how to prevent this attack from his or her students.

PE teachers is considered to be trusted in conducting first aid treatment to fainting patient, without set aside the medics. Therefore, PE teachers are supposed to be ready to help the patient to get consciousness as soon as possible. But, they should always consult to the medic even though they know how to do the first aid treatment. To enrich PE teachers' knowledge, especially, giving treatment to fainting patients, this paper discuss practical way treating fainting people using massage technique of acupuncture.

DEFINITION
Fainting/syncope can occurs in field when doing sports, especially the direct contact sport; conducting flag ceremony under the sun heat, or in a very crowded room, and in an extremely cold or hot conditions. Fainting or syncope can be fatal if it is not treated properly. Budi Raharjo (1991:29) stated that fainting is a condition when
consciousness is decreasing or lost (lost of consciousness). The disorder of the fainting spell occurs in the central nerve system. Wikipedia, a free encyclopedia, defines that syncope, the medical term for fainting, as a sudden, usually temporary, loss of consciousness generally caused by insufficient oxygen in the brain. wikipedia.org/wiki/pingsan

The pre or near symptom of fainting are dizziness, blurred vision, tinnitus, and feeling hot. Then the one will progress through dimming vision or greyout, complete loss of vision, weakness of limbs to physical collapse. If the collapse person position is not changed into almost horizontal position, can in result death due to trauma effect of suspension.

Fainting is a condition of losing consciousness like asleep to someone caused by disease, accident, lack of oxygen, low blood volume, poisoning, shock, thirst/starving, weak condition, and many more. (http://organisasi.org/tips-cara-menolong-orangpingisan-tidak-sadarkan-diri-p3k-pertolongan-pertama-pada-kecelakaan). Normally, fainting people face are getting pale. Individual who is fainting need oxygen and cool place. Therefore it's preferable to take fainting individual to cool and quiet place to avoid crowd.

Yuda Turana stated that fainting or syncope is a condition of losing consciousness suddenly and temporally. (http://klkbiologi.blogspot.com/2011/02/mengapa-orang-bisa-pingsan-apa.html). Fainting can be caused by blood flow to the brain, low blood pressure or standing too long in hot place (outdoor ceremony) or because of cardiac (heart-related) problems, such as an abnormal heart rhythm.

Fainting (syncope) is losing consciousness suddenly, usually in few seconds or minutes, because the brain does not get enough supply of oxygen. (http://majalahkesehatan.com/7-penyebab-pingsan/)

Henceforth described that the brain has several parts, including the two hemispheres, cerebellum and brain stem. An area of reticular activating system is in brain stem. Fainting occurs when both reticular activating system lack of blood, oxygen, or glucose. To keep the body awake, reticular activating system should live as well, that can happen if the blood vessel provide sufficient supply of oxygen and glucose to the brain cells. The medical term for fainting is syncope which means a condition when you loss consciousness suddenly and temporally, usually in short time. Syncope or fainting generally caused either by insufficient oxygen in the brain or less blood supply to the brain. (http://arispurnomo.com/definisi-pingsan-serta-penanganannya)

Statements of fainting or syncope definition, the symptoms, description of the association between conscious (not fainting) and unconscious (fainting) will be discussed in this section. Soemarno Markman dan Achir Yani. Sy. (1982) stated that there are two kinds of consciousness, that are supreme consciousness -including psychological function, self-consciousness, the position and status in the community- and prime-consciousness or asor - that is manifested on asleep and awake condition. Then life tissues show electrical activities. Brain has got electrical activities called Electro Ensifalo Gram (EEG). In a normally conscious condition, EEG indicates low-voltage but faster frequency. In asleep condition, EEG contains high voltage but soft waves. Associated with fainting, it's related to the disturbed or not disturbed prime consciousness/asor that is related closely to the problem on the body tissues.

Based on experts' statements, it can be concluded that fainting or syncope is a condition which consciousness is less or loss like asleep, that usually occur suddenly in short time. Fainting or syncope attack the central nerve system. It is caused either by the blood, that is not circulating or flowing properly to the brain, or the disturbance on electrical activities on the brain called Elektro Ensifalo Gram (EEG).

**SYMPTOMS OF FAINTING OR SYNCOPE**

Fainting individual sometimes can get his or her consciousness immediately and spontaneously. The fainting symptom is indicated through pale face, wet skin, sweating/cold sweat, dizziness, thirsty and dry lips, nervous, short breath, abnormal heart rhythm, nausea, sometimes vomit, decreased or loss of consciousness.
CAUSES OF FAINTING OR SYNCOPE

Fainting or syncope can be caused by some factors:

1. Physical condition: exceedingly bleeding, suffer for pain, medicine allergy, cardiac or heart problem, exhausting, starving/thirst, dehydration
2. Disease: diabetes melitus, hepator illness (hepatikum), lack of red blood cell (anemia), lack of blood sugar (hipoglilikom)
3. Head injury due to hitting
4. Psychological causes: emotional situation, fear.

The shift of heart rhythm is one of the most common cause of fainting or syncope. So far it's known that fainting is often caused by the temporal change on the normal function of the body.

Sometimes the shift of heart rhythm (an arrhythmia) is more dangerous and potentially cause to death. The heart is like an electrical pump, if there are problems with the electrical system in the body, it is possible that the heart cannot pump the blood adequately to affect the blood pressure. Electrical problems can cause the heart beats too slowly, too rapidly, or too irregularly [1].

Fast heart rhythm or tachycardia (tachy= fast + cardia= heart) is and abnormal rhythm that come from the upper and lower chamber of the heart that can result in death. If the heart beat too fast, it's possibly that it doesn't have enough time to fill them with the blood between the beats. This causes less blood to deliver to the whole body. Tachycardias can occur to all ages and might not related to atherosclerotic heart problem. With bradycardia or slow heart beat (brady = slow + cardia= heart), the ability of heart to pump blood might be compromised. When the heart older, the electrical system can be fragile and the heart is obstructed, or the electrical system disorder cause slower heart beat [1].

Beside the electrical structure problem on the heart, drug can cause fainting as well. When consuming prescribed medication to control the blood pressure (for example, beta blockers like metoprolol (Lopressor, Toprol XL), propanolol (Indera, Inderal LA), atenolol (Tenormin), or calcium channel blockers like diltiazem (Cardizem, Dilacor, Tiazac), verapamil (Calan, Verelan, etc), amlodipine (Norvasc)), heart sometimes can be more sensitive to the effect of this drugs, and result in abnormal heart rhythm and decrease the output of the heart [1].

Acupuncture science explain that in human body, there is Chang' internal organ. Its relation with syncope will be described later. Internal organ in human body included in chang is heart, spleen, lung, and kidneys (Tseng Kai 1997). Heart is protected with heart membrane. Heart control mind and emotion that is the center of the human life. Heart control the blood circulation, therefore all blood circulation disturbance start from the heart. Heart related to the vessel that help the blood circulation, and maintain the artery. If the blood flow is blocked, the face turns pale, easily shocked/surprised, forgetful, lower brain capacity, insufficient blood flow to the brain, then collapse into fainting.

Spleen is paired to stomach. Spleen functions are to take and distribute the food that was processed by the stomach to the whole body to maintain the body. This collaboration made by both organ called as the root of human after birth. Spleen is used to discard the waste fluid to make the body fluid balance. If the function of the spleen is not optimum, the distribution of the soft material fluid to the whole body decreasing, including the glucose to brain. It contribute to the cause of fainting. Humidity is not good for spleen because it can disrupt its functions. Too cold or too many rain can cause humidity.

Lung control breathing system and energy produced from digestion to keep life, reinforce blood circulation, and nourish the skin, pores, and five senses. Lung is sensitive to cold. If the energy in the lung decrease, the skin will dry, and fainting potential to attack. Gall bladder keep bile that is considered as other substance by other organ. It's called middle part cleaner. Gall bladder determines the thinking consideration. If its function is weak,
it causes sleep disruption, easily surprised when sleep, suffer for anxiety, take a deep breath, dizziness, and vomiting. This can be progress to fainting.

In most cases, except cardiac case, fainting is often caused by vagus hypersensitivity. Vagus is the tenth nerve that control the internal organ of human body and influence the heart beat. (http://klikbiologi.blogspot.com/2011/02/mengapa-orang-bisa-pingsan-apa.html) Sudden fainting can be caused by electrical disruption in the brain. Electrical short circuit can make a patient loss consciousness. This electrical problem is getting obvious if the patient can feel the symptom of fainting or something wrong with his her condition. Convulsion usually, but not always, present preceding this electrical disruption. (http://klikbiologi.blogspot.com/2011/02/mengapa-orang-bisa-pingsan-apa.html).

Some special internal organs in human body are brain, marrow, and uterus. Brain is in the head, marrow is in the bone. Those organs are considered special because they are not classify to other organs structure. They have their own structure; they do not distributing or saving. Brain is ocean of marrow. It's such an important organ that it may not get injury. Kidneys preserve marrow and the marrow preserve the bone, while bone protect the marrow and marrow always related to brain. Brain, marrow, and bones must be preserved with fluid or soft material (food and water substance). If the soft material is decreasing, it will cause: the painful joints, limp body, weak body, ringing ears, blurr vision, dizziness, decreasing consciousness and fainting.

When short hypoglikemia occur or when individual does not eat breakfast before doing physical exercise in excess, the brain will lack of glucose, that result in decreasing consciousness. http://klikbiologi.blogspot.com/2011/02/mengapa-orang-bisa-pingsan-apa.html.

Internal organ in human body belong to fu organ are small intestines, gall bladder, stomach, large intestine, vesika urinaria, heart membrane, and three heaters (Tseng Kai 1997). stomach receive food and drink, then digest to food substance that will be observed by spleen and distributed to the whole body. Therefore, if individual does not eat any food, there will not any food to process which means decreasing energy that can cause fainting.

Three heaters is human body heat that related to heart membrane. They balance the fluid through body energy while distributing and processing the fluid, as well as discard waste fluid. Those functions are controlled by lung, kidneys, spleen, and vise versa. If their functions are disrupted or decreasing, electrical body system will be decreasing as well, which might affect the electrical activity in the brain. This situation can result in fainting.

Other causes can come from psychological problem. Emotional situation may cause fainting too. For example, an individual is fainting after a depressing argue session with parent or teacher. Fainting due to emotional factors often occur to young women. It's related to special internal organ, uterus.

Uterus is the starting point of meridian ren/urinaria where soft material that preserve her body collect. It's nature and influenced by air and food. Short breath, beating heart, difficult defecation, excess thirst, dehydration may indicate weak uterus. This symptom may result in fainting too. Therefore to keep away the uterus from weakness, it's suggested to do sport and consume healthy food regularly

MASSAGE TECHNIQUE OF ACUPUNCTURE SYSTEM.

Massage of acupuncture is an acupuncture-based massage using finger, not needle. Manipulation is intended on the soft material knot tissues of the body that is called acupuncture point (acu-point). Massage of acupuncture system can be done to give self therapy or therapy to others as a new method to heal pain caused by disease in easy, safe, direct way, and in short time.

Massage of acupuncture system is done with hand (manipulation), without needle, to the meridian knot of body organ in manual or mechanic procedure. This manipulation is intended to give physiological, profilactical, and therapeutic effect to the body.

Meridian is a soft material tissue in human body, differ from nerve system, spleen, and blood vessel. This tissue is nature and, or, shaped by air and food substance that help human to keep the body healthy and
prevent disease. Meridian of the body classified into: (a) Special Meridian and (b) Organ Meridian.

- a. Special Organ Meridian consists of main nerves and genital/uterus meridian.
- b. Chang Organ Meridian consist of: kidneys meridian (water), heart (fire), flank meridian (land) and lung meridian (metal) and liver meridian (wood)
- c. Fu Organ Meridian are: bladder meridian, small intestine, spleen, large intestine, and gall.

Based on description of meridian and acupuncture points, manipulation of acupuncture system massage is done using the tip of the finger. There are several manipulation techniques in the acupuncture system massage therapy. One of them is press-lift (friction)

**Press-lift (friction)**

to locate the acupuncture point, use middle finger. The point finger is in the inner side while ring finger hold at the outer side of the first middle finger book, to strengthen middle finger. (figure 1).

**Figure 1. middle finger position**

Then put the middle finger to the surface of the skin. Press until the pressure felt beneath the surface of the skin, then lift immediately. One time of pressing and lifting count one. Generally, it done for 30 to 50 times. The strength of pressure integral with time sequence and depends on the patient condition.

**TREATMENT PROCEDURES FOR FAINTING**

Generally fainting individual need oxygen and loose blood circulation. Therefore the patient need to get immediate practical aid. Massage technique of acupuncture system is very helpful to do so. these are the procedures of the treatment:

1. Lay the patient on TERLENTANG position, loosen the tightening outfit so that the blood and oxygen circulation are not blocked.
2. touch the knot (acupuncture point) of special meridian 26 (TU 26) softly. Sui Kou stated that the acupuncture point is under the nose, one third from the side of the upper lip. Because it’s an easily found point and does not have any side effect, it’s very recommended to be used as the first aid to fainting (Tseng Kai 197), as seen in figure 02.

**Figure 02**
After TU 26 spot is located, do manipulation using the tip of middle finger for several moments. See figure 03

Figure 03

3. To recover the patient condition after fainting, do the next step, as following:
   a. Take the patient to cool place, protect from the sun. Mind the the people around to prevent them losing their belonging.
   b. Provide quiet place, and ask people not to crowd. It's intended to give the patient fresh air circulation.
   c. Loosen the tight clothes or accessories so that patient can breath. Tight clothes and accessories can block the blood and oxygen circulation disrupted. Cover the patient with a blanket if she /he feel cold. Watch the breathing.
   d. Let the patient take a rest laying if the face turn pale. Elevate the leg slightly higher than the head. But if the face turns red, the head position must be higher than the leg.
   e. It's suggested to give warm drink, like hot sweet tea to the patient to give him/her enough glucose. The glucose will help the patient to get energy.

This paper also discuss the management to treat the fainting symptom personally. If you fell these symptom, dizzy, headache, turning world, nausea, ringing hearing, and blurr vision, they indicate that you are about to fainting. Sit or squat, lean the head between the knees for at least 10-15 minutes. This position help the blood circulating to the brain. Or you take laying on the ground position. Wait till you feel better. Then wake up slowly.

If that treatment does not work, refer he patient to the nearest clinic as soon as possible.

CONCLUSION

Fainting or syncope is a common condition but it sometimes worrying. To prevent fatal effect, immediate treatment need to be provided. Fainting symptom can be identified by nervous, pale or red face, sweating, nausea, or vomiting, headache, thirsty, short breath, abnormal heart rhythm, and decreasing consciousness. Fainting can be caused by: (1) body condition: too tired, too hungry/too thirsty, excess bleeding, (2) disease: diabetes, hepar disease, (3) head trauma due to hitting something hard and (4) emotional or psychological factors.

There are several treatments for fainting patient. Massage technique of acupuncture system is one alternative. It is conducted without needle, and for this reason it's called acupuncture system massage this method is very simple and practical, by using middle finger to vibrate softly the special meridian to 26 (TU 26) which is located under the nostril, one third from the side of the upper lip. On this meridian knot, consciousness of faiting person can be aroused. The next treatment can be done by taking the patient to cool place, protected from the sun heat, or in a room with good air circulation. Keep the patient away from the crowd to provide enough oxygen and quiet place to rest for the patient. Give hot sweet tea that will increase the glucose. This glucose is needed to produced energy.

Therapy for fainting patient using massage technique of acupuncture system can be done by everybody, especially physical education teachers. In fact PE teachers is familiar with this case, not only on school activities
or other activity that related to physical activity. Therefore PE teachers do not need to doubt to give treatment to fainting patient, especially the student or other people. But, it's very important to note that if the first aid treatment has been conducted but has not worked yet, the patient need to be referred to the nearest medical center.

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