The behaviour University of Sumatera Utara football school students and the Sejati Pratama football school students on soil transmitted Helminth infection

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Abstract. In every day, student of football school often interacts with the land. This is certainly easy to have a risk of Soil Transmitted Helminths (STH). The aims of study is to study comparison of the behavior of the University of Sumatera Utara (USU) football school students and the Sejati Pratama football school students about STH infection. The type of this study was analytic observational with the cross-sectional approach. The measurement of behaviour was done by using questioner to know the knowledge, attitude and student practice to the STH. The data of knowledge and practice were analyzed by chi-square meanwhile the data of attitude were analyzed by Fisher exact test. Results showed that students of football school USU had the knowledge and practice which was better towards the infection of STH compared to students of football Sejati Pratama with the significant difference in the level of knowledge. There was the significant difference between student's knowledge of USU football school and student of Sejati Pratama football school regarding STH infection, but there was no significant difference in the attitude and the practice.

1. Introduction

Helminthiasis is an infestation of intestinal parasites of nematode class as one of the public health problem [1]. One of the intestinal worms infectious is STH [2]. Indonesia is a tropical country with the high potential area for STH infection in its population. The World Health Organization (WHO) classified that STH infection as the one of the Neglected Tropical Diseases (NTDs). This means that this disease has been neglected, because it is not fatal. Although not fatal but greatly affect the health status of society and not infrequently cause death. WHO stated that 150 000 death occurred every year due to the STH infection [3].

One of the group community that tends to be connected with STH infection is students of football school [4]. There are some football schools in Medan such as University of Sumatera Utara (USU) football school and Sejati Pratama football school. Both of this football school is very active in training and competition. The regular training and the competition of this student made the student is often to interact with the land. Initial surveys for both of football school showed that the socio-economic of the student of USU football school that come from middle to upper economic family whereas student of Sejati Pratama football school come from middle to lower economic family. The
low economic group had the higher risk of getting infected of STH. This is influenced by the behaviour of the group [5].

Behavior is defined as an action or reaction of an organism to its environment. Individual behaviour can affect the incidence of disease in such individuals [6]. A person's behaviour about STH infection can be interpreted as knowledge, attitudes and actions towards stimuli or objects related to STH. Based on this matter, this study aims to see the comparison in the behaviour of student USU football school with Sejati Pratama football school in Medan about STH infection.

2. Methods
This study is analytic observational with research design is cross-sectional study. This study was conducted on September-December 2017 at USU football school and Sejati Pratama football school in Medan. The students of USU football school and students of Sejati Pratama football school were as population in this study with the amount of each sample of 40 students and 61 students. It was taken by simple random sampling. The Inclusion criteria 1) aged 8-12 years (junior group), 2) well communication, 3) get approval from parent/guardian of students by bringing the signed of informed consent. Also, The Exclusion criteria were 1) students who were not attended when the collecting the data, 2) students who did not fill the questioner completely.

The measurement behaviour by using questionnaire containing 30 questions on knowledge, attitudes and practice on matters related to STH such as personal hygiene, environment, facilities and infrastructure availability in the breaking of the STH chain. The questionnaires have been tested for the validity and the reliability [7]. The answered from the students will be scored and grouped into two groups, i.e.: a. good, if respondents got to score 76% -100% over all the scores b. bad, if respondents got score ≤ 75% over all the scores.

The data of knowledge and practice were analyzed by chi-square meanwhile the data of attitude were analyzed by Fisher exact test.

3. Results
The comparison of knowledge student of USU football school with student Sejati Pratama school regarding STH Infection can be seen in Table 1.

| Student of football school | Knowledge | p-value* |
|---------------------------|-----------|----------|
|                           | Bad       | Good     |
|                           | n         | %        | n         | %        |
| USU                       | 3         | 7.5      | 37        | 92.5     | 0.042    |
| Sejati Pratama            | 14        | 23.0     | 47        | 77.0     |

Table 1 shows that USU football school student groups have a better percentage of knowledge about STH infection than Sejati Pratama football school. Chi-square test used to see relationship of the variables. The test showed that the significant difference between the knowledge of USU football school compared to the knowledge of the students of Sejati Pratama football school regarding STH with p <0.05.

Knowledge is the result of knowing, this happened after people have sensed a particular object. Sensing happens through human five senses. Namely, the sense of sight, hearing, smell, taste, and touching. Factors that influence knowledge of the person including the external factor such as family and learning approach factor such as learning factors, for examples the strategy and method of learning [6]. SSB USU students come from middle to upper economic families. Adequate economic level can create learning efforts regarding achieving the strategy and the method of appropriate learning [8,9]. This greatly encourages the achievement of the objectives of learning, thereby enhancing students' knowledge.
Comparison attitude students of USU football school with students of Sejati Pratama football school about STH infection can be seen in Table 2.

**Table 2. Comparison of attitude student of football school regarding the STH infection**

| Student of football school | Attitude  | p-value* |
|---------------------------|-----------|----------|
|                           | Bad | good |          |
| USU                       | 2   | 5.0  | 28       | 95.0 | 0.647   |
| Sejati Pratama            | 2   | 3.3  | 59       | 96.7 |

* Fisher exact test

Table 2 showed that the students of Sejati Pratama football school had a better percentage of attitude about STH infection compared to students of USU football school. But, the Fischer's exact test results showed that there were no significant differences between students attitude of USU football school compared to student attitude of Sejati Pratama football school with p> 0.05.

Attitude is a reaction or response that is still closed from someone towards the stimulus or object. The attitude is influenced by the trust. In this study, although knowledge of STH is lower in students of Sejati Pratama football school than the student of USU football school, students of Sejati Pratama football school have a better percentage of attitude. This is possible because a person's attitude about STH can be gained from the belief of the daily activity not only from learning or knowledge [6].

The comparison practice of USU football school with students of Sejati Pratama football school about STH infection can be seen in Table 3

**Table 3. Comparison of practice student of football school regarding the STH infection**

| Student of football school | Practice  | p-value |
|---------------------------|-----------|---------|
|                           | Bad | Good |
| USU                       | 12  | 28    | 28     | 70.0 | 0.643   |
| Sejati Pratama            | 21  | 40    | 40     | 65.6 |

* Chi-square

Based on Table 3 the percentage student of USU football school with STH is better than that of students Sejati Pratama football school. There is a difference between attitude and practice comparison to STH in this study. [6] states that attitude has not been manifested yet in the form of action because to realize the action, it needs another factor, namely the existence of facility and infrastructure as a mediator for attitudes to be increased to action [6]. In this study, the chi-square test showed that there was no significant difference between the actions of students of USU football school compared to the actions of students of Sejati Pratama football school to STH with p > 0.05. This results is similarly as the analytic test on the attitude variable.

The previous study showed that clean, sanitary facility would lead to good level of person in behavior toward STH [10.11], and the attitudes embodied in action must also be shared by subjective norms applicable within a particular community [2].

**4. Conclusions**

Students USU football school with better socioeconomic conditions had better level of knowledge and action on STH than that of students Sejati Pratama football school. Attitude of students Sejati Pratama had the better attitude than that of students of USU football school. There was the significant difference between student's knowledge of USU football school and student of Sejati Pratama football school regarding to STH infection, but there was no significant difference in the attitude and the action.
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