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Social aspects role and the behavior of drinking water among students in a private university

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ABSTRACT

Lack of consuming drink water can cause many effects on the body. The long term effects of less consuming water dangerous for health. The diseases related to the less consuming water are respiratory tract infections, gastrointestinal disease, urinary infections, cancer, diabetic, kidney disease, and also others metabolic disorders. Those diseases affected to the financial burden due to this situation. It happens because of some factors, many studies mentioned about the behavior of drinking water among adolescents in school affected by some sociodemographic and behavioral factors. This study shows that most of respondents have a bad habit to keep their health kidney it is evident that the majority of respondents have urine color that tends to concentrated which is categorized as unhealthy urine. The limitation of the study was not measure the amount of drink water consuming for each respondents per day.

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1. INTRODUCTION

The major way to survive from the live on land is water. Our adult body consists of 75% of water and 55% in the infant stage; a human can only survive a few days without water [1]. It prevents dehydration [1]. Adolescence as a group of age that experienced with many changing of their life, for instance, the changing of mental, biological, psychological, and also physiological. Those changing influence them about how to react to the situation, high experimentation, exploration, also brave to take a risk. This situation makes adolescent also influenced by their surrounding, including health problem [2]. Healthy behavior among adolescents has been changing. In America, many adolescents often consumes sweet drinks [3-5]. Sweet drinks also very popular in Asia, such as boba drink, milk tea, that contains high sugar on it [6].

Shifting food intake patterns are ones mainly occurs in adolescents, many teenagers who use drinks intake like dangerous drinks like liquor and supplemented drinks, as well drinking less water, so the trend in the intake pattern causes kidney failure young age [7]. Kidney failure disease is a non-communicable disease with a large and suctioning rate of health insurance, Indonesia has a spesific health program to improving healthy behavior among the community members called "Germas" is expected to reduce the incidence of disease kidney failure. The provincial of Yogyakarta mentioned ready to implement "Germas" in 2016 - 2019 with initially three priority programs, namely promoting healthy living such as drinking enough water,

in addition to two other programs such as increase physical movement and increase consumption of fruits and vegetables [8].

Lack of consuming drink water can cause many effects on the body. Some study mentioned that adolescents prefer to consume sugar drink than drinking water. Adolescents drink soft drink as much as 230 calories per day and also other sweetened drinks in 100 calories per day [9]. Some effects of drinking less than 2% of body mass water will cause mood swing, exhausted, decreasing of endurance and also awareness [2, 3, 10]. Among students, lack of consuming mineral water drink will affect their concentration [11].

The longterm effects of less consuming mineral water dangerous for health. Dehydration is a manifestation of dying among adolescents. Some diseases also relate to the dehydration such as respiratory tract infections, gastrointestinal disease, urinary infections, cancer, diabetic, kidney disease, and also other metabolic disorders [12]. This situation related to some factors, many studies mentioned the behavior of drinking waterdrinking waterdrinking water among adolescents in school affected by some sociodemographic and behavioral factors [3, 13]. This study aimed to describe the perception of adolescent about the role of social influence and their behavior of consuming water toward the color of their urine.

2. RESEARCH METHOD

This is a cross sectional study to describes the perception of adolescent toward the role of social factors surrounding them [14]. The population of the study was the first semester students of public health faculty in a private university. The students were chosen as the respondents of this study because they get subject about biomedical interm of theory also practical. They are actively chosen to participate in this study. Total sampling was applied in this study. There were 287 university students participated in this study.

The questions were derived from World Health Organization standard questionnaire. The question related to the perception of social role towards drinking water behavior, the habit of the adolescent to drink water towards the color of urine. The conceptual framework of this paper was drawn by the Health Belief Model theory. This theory applied to explain what adolescents think about their social circle to support drinking water and also explain the behavior of the adolescents to consume drinking water to the color of urine, and the behavior of the adolescents to maintain their health kidney towards the color of urine [15].

3. RESULTS AND DISCUSSION

Based on the data analysis, we found some situation related to the behavior of the students on drink water in a day. Social environment surrounds the respondents have no correlation to support to keep their healthy kidney by drink water routinely but the behavior of drink water correlate to the habit to drink water and also their urine colour.

3.1. Sociodemographic of the respondents

There are 287 respondents who are participated in this study. Majority of the respondents were female (84%) and the others 16% are male. Respondents who have habit of drinking water ≥ glasses each day are 24%. Most of the respondents behave to keep their kidney health as many 56% and 54% of respondents have the unhydrated urine color. The sociodemographic of the respondents show in Table 1

Table 1. Distribution of frequency of sociodemographic of the respondents

Characteristics of the Respondents		Frequency (n)	Percentage (%)
Sex	Female	242	84
	Male	45	16
Role of father on drinking water	Risky	83	29
	Not Risky	204	71
Role of mother on drinking water	Risky	51	18
	Not Risky	236	82
Role of sibling on drinking water	Risky	170	59
	Not Risky	117	41
Role of friends on drinking water	Risky	186	65
	Not Risky	101	35
Habit of drinking water	Risky (<8 glasses/day	46	46
	Not Risky (≥8 glasses/day)	54	54
Behaviour to keep kidney health	Risky	126	44
	Not Risky	161	56
The Color of Urine	Unhydrated well	155	54
	Hydrated well	132	46
Total		287	100

3.2. The perceived of social environmental's role surround the respondents

Table 2 shows that most of adolescents (83.2%) perceived that their mother has an excellent role in encouraging them to drink water. As many as 200 (71.8%) adolescents mentioned that they have a good perception that their fathers encourage them to drink water. Most of the adolescents perceived that siblings (57.6%) and friends (64.4%) have a bad encourage to drink water.

Social factors have the impact of adolescents' behavior to imply some activities. The social aspects describe that the acceptance of individual to do an activity which means the behavior of consuming drink water because they have a similarity about the impact or benefit they will get [16]. The adolescents built the perception that parents strongly encourage them to drink water. Parents as the role model at home have a strong influenceon their children. A study mentioned that parents become a usual barrier in terms of limiting the sweetened water of other sweet meals because of lack of role modeling. Children will see and copy what parents did surround them (in terms of eating and drinking behaviors, lifestyle, and attitude that construct the norm of a family [17, 18]. This study found interesting points; adolescents have some inclusive characteristics that are changing in biological, physiological, psychological. Most of the adolescents characterized feel intimate with their friends or peer [13, 19]. It assumes that adolescents in this study have a strong social norm in their family [16].

Table 2. The perceived of social environtment's role surround the respondents

Variables	Category	n=287	%
The role of mother towards the behavior of drink water among adolescents	Bad	52	16.8
	Good	235	83.2
The role of father towards the behavior of drink water among adolescents	Bad	87	28.2
	Good	200	71.8
The role of siblings towards the behavior of drink water among adolescents	Bad	178	57.6
	Good	109	42.4
The role of friends towards the behavior of drink water among adolescents	Bad	199	64.4
	Good	88	35.6

3.3. The correlation between behavior to maintain helth kidney towards habits of drink water

Most of the adolescents (66.1%) who have a good habit on consume drink water will have good health kidney, compared with the adolescents who have poor behavior in maintaining poor kidney health which is equal to 40%. While respondents who are not good habits in consuming water is more influenced by the behavior of respondents who are not good in maintaining kidney health, which is equal to 60%. Chi-square test obtained p value of 0.000. Based on this result, it can be concluded that there is a significant correlation between the behaviors of maintaining kidney health with the habits of respondents consuming water; illustrated in the Table 3.

Table 3. The correlation between behaviors to keep health kidney towards habits of drink water

Behaviour to Keep Health Kidney	Habit of Drink Water				Total	
	Bad (< 8 glasses/day)		Good (≥8 glasses/day)			
	N	%	N	%	N	%
Bad	81	60.0	Bad	81	60.0	Bad
Good	59	33.9	Good	59	33.9	Good

p = 0.000

The findings of the present study show that the adolescents who are highly aware of their kidney health have a good habit of consuming drink water regularly as a minimum eight glass per day [11]. It should be noted that the health kidney also has a correlation to the kind of activities of the respondents. It is important to understand the activities of respondents per day and the amount of water consumed [20]. The kind of drinking water is also apart of behavior to maintain a healthy kidney. A study mentioned that adolescents in Latin America prefer to consume sweetened soft drink [21], but adolescents in Asia especially in China and Indonesia most likely to drink milk, tea, and coffee that ready to drink [17, 21, 22]. The school or university should have the regulation on drinking. This situation should become concerned related maintain the health kidney towards improving the habits of drink water among students [13, 19, 23, 24].

3.4. The correlation between behavior to keep the hydrated colour of urine

The percentage of respondents who have good (clear) urine color is caused by the behavior of maintaining good kidney health by respondents which is 51.7%, compared to the bad behavior in maintaining

kidney health that is equal to 39.3%. While urine color that is not good (concentrate) is greater due to the behavior of maintaining kidney health which is also categorized as not good at 60.7% compared to the behavior of maintaining good kidney health at 48.3%. The Chi square obtained p-value of 0.029 which means that there is a significant relationship between the colors of the urine of respondents with the behavior of maintaining kidney health by respondents; presented in the Table 4.

Table 4. The correlation between behaviors to keep the hydrated colour of urine

Behaviour to Keep the Hydrated Colour of Urine	Colour of Urine				Total	
	Bad (Concentrated)		Good			
	N	%	N	%	N	%
Bad (Concentrated)	82	60.7	53	39.3	135	100
Good	62	48.3	90	51.7	152	100

p = 0.029

Urine colour is the indicator of the hydrating of body. Water intake is very important to maintain hydration [25]. The current study indicates that respondents should be increasing the total water intake. This situation becomes a public health problem, so it needs the strategies to increase the awareness of the respondent about habit to maintain the health kidney through increasing the behavior of drinking waterdrinking waterdrinking water [5, 13, 26]. The habit of drinking wateris very important to maintain the physiological functions interm of blood pressure, basal temperature, and pH because water is a supply machine of oxygen, glucose, sodium, and also potassium to the body [9, 27]. The colour of the urine will be the sign that the body needs to be hydrated [28-30].

4. CONCLUSION

Based on the results of the study, we conclude that siblings and friends of the respondent have the good role in encouraging respondents to drink water simultaneity per day. Most of the respondents have a bad habit of treating their health kidney. It is evident that the majority of respondents have a urine color that tends to concentrated which is categorized as unhealthy urine. The limitation of the study did not measure the amount of drink water consuming for each respondent per day.

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