Relationship Of Knowledge, Attitude, And Practice To Incidence Of Hepatitis A Virus Infection In Nursing Students In Jember

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ABSTRACT

Introduction: Hepatitis A virus (HAV) can cause inflammation in the liver. Indonesia is one of the countries with a high prevalence rate of hepatitis. The hepatitis A outbreak is an indicator of the lack of student's concern in maintaining the food, drinks, or environment hygiene. **Objective:** The aim of the study was to determine the relationship between knowledge, attitude, and practice towards incidence of hepatitis A virus infection in nursing students. **Methods:** This research was a quantitative study with a descriptive analytical correlation design using a *cross-sectional* approach. The sampling technique used *cluster sampling* and 200 participants were obtained from nursing students in several colleges in Jember. The data collection process used an online google form for the questionnaires, because of the pandemic situation. The data analysis was carried out in univariate and bivariate analysis using *Chi-square* test. **Results:** The research results showed that there was a relationship between knowledge with incidence of hepatitis A infection which is significantly associated with alpha of 0.046 (<0.05) and OR of 1.140. There was no relationship between attitude and incidence of hepatitis A infection with alpha = 0.489 (> 0.05), as well as the relationship between practice and incidence of hepatitis A infection (p=0.489). High knowledge level has an important role in preventing the hepatitis A infection risk. **Conclusion:** Student's attitude and practice are not significantly associated, because even the nursing students knew what to do for prevention of infection risk, they still didn't do it in their daily activity.

ABSTRAK

Latar belakang: Indonesia merupakan salah satu negara dengan tingkat prevalensi hepatitis yang tinggi. Wabah hepatitis A merupakan salah satu indikator kurangnya kepedulian siswa dalam menjaga kebersihan makanan, minuman, serta lingkungan. **Tujuan:** *Penelitian ini bertujuan untuk mengetahui hubungan pengetahuan, sikap, dan praktik terhadap kejadian infeksi virus hepatitis A pada mahasiswa keperawatan.* **Metode:** *Penelitian ini merupakan penelitian kuantitatif dengan desain deskriptif analitik korelasional dengan pendekatan cross-sectional. Teknik pengambilan sampel menggunakan cluster sampling dengan total 200 partisipan diperoleh dari mahasiswa keperawatan di beberapa perguruan tinggi di Jember. Proses pengumpulan data menggunakan online google form untuk kuesioner, karena situasi pandemi. Analisis data dilakukan secara univariat dan analisis bivariat menggunakan uji Chi-square.* **Hasil:** *Hasil penelitian menunjukkan bahwa ada hubungan pengetahuan dengan kejadian infeksi hepatitis A yang berhubungan signifikan dengan alpha 0,046 (<0,05) dan OR 1,140. Tidak ada hubungan antara sikap dengan kejadian infeksi hepatitis A dengan alpha = 0,489 (> 0,05), serta hubungan antara praktek dan kejadian infeksi hepatitis A (p=0,489). Tingkat pengetahuan yang tinggi memiliki peran penting dalam mencegah resiko infeksi hepatitis A.* **Kesimpulan:** *Sikap dan praktik mahasiswa tidak berhubungan secara signifikan, karena mahasiswa keperawatan pun tahu apa yang harus dilakukan untuk pencegahan risiko infeksi, mereka masih belum melakukannya dalam aktivitas sehari-hari.*

Introduction:

Hepatitis A is a contagious liver inflammation caused by the hepatitis A virus (HAV). According to WHO, globally 1.4 million patients in the world experience Hepatitis A every year (WHO, 2015). Indonesia is one of the countries with a high level of hepatitis prevalence. Based on Basic Health Research, 0.39% of Indonesia's population suffered from hepatitis. In 2013, East Java Province was in first place with the highest incidence of hepatitis A, namely 287 cases (Dinas Kesehatan Provinsi Jawa Timur, 2017). Based on the latest data from the Jember District Health Office, there have been 217 cases of hepatitis A from 16 November 2019 to 25 December 2019 (Sulaiman, 2019).

Hepatitis A is transmitted through contact with feces or from consumption of contaminated food and drink. It can also occur due to sexual intercourse and intravenous injection (Linder & Malani, 2017). Symptoms include fever, fatigue, abdominal pain, nausea, vomiting, and yellow sclera and skin. Jember Regency often has outbreaks of Hepatitis A, where the majority of patients infected were college students (Sulaiman, 2019). The campus area is an endemic area with a large number of students infected by hepatitis A (Hikmah et al., 2019). This outbreak due to hepatitis A can also be a reference for the lack of concern of students in maintaining the food, drinks, or environment hygiene.

This research aimed to examine the relationship between knowledge, attitude, and practice toward incidence of hepatitis A infection in nursing students. The capability of nursing students to have knowledge of hepatitis A, having attitude and practice hygiene for HAV risk of infection, can be useful for theirself and for the society.

Methods:

This research was a quantitative study using descriptive analytical correlation research design and cross-sectional approach. The sampling technique used cluster sampling to equalize the samples. We obtained 200 nursing students as participants which is 50 participants from each college in Jember district (Jember University, Muhammadiyah Jember University, Stikes DR. Soebandi, IAI and Stikes Bhakti Al Qodiri). The questionnaires used in this study were adopted from the previous study by Nazri, et al (2019) which contain questionnaires for knowledge, attitudes, and practice of hepatitis A. The questionnaires of KAP (knowledge, attitudes, and practice) were used then translated using back-translation method. Each variable has 17 questions for knowledge with 'yes' and 'no' choice, 13 questions for attitudes with 'agree' and 'not agree', and 10 questions for practice with 'always', 'seldom', and 'never'. The questionnaires were eligible for validity and reliability tests which have cronbach's alpha 0.67. The data collection used online via google form due to pandemic. All participants filled out the questionnaires which first provided informed consent and explanation by the researcher. The data analysis process consisted of univariate and bivariate analysis using Chi-square test. This study was obtained ethical approval from STIKES dr. Soebandi with approval number No.79/SDS/KEPK/TL/VII/2020.

Results:

Table 1. Data Respondents Characteristics

Variable	Frequency (n)	Percentage (%)
Gender		
Male	36	18,1
Female	164	81,9
Year of college		
1st	121	60,5
2nd	34	17
3rd	22	11
4th	21	10,5
5th	2	1

Institution		
UNEJ	57	28,5
SDS	93	46,5
SBAQ	18	9
UM	25	12,5
IAI	7	3,5

The data shows in table 1 is about the characteristics of respondents in this study. Majority of the respondents were female (81,9%). This study followed by variety of nursing students from any college in Jember District also the year of college. The majority of the nursing students were in their first year (60,5%). The majority of the respondents came from the same institution as the researcher due to online method of collecting data.

Table 2. Distribution Data (n=200)

Variable	Frequency (n)	Percentage (%)
Knowledge		
High	171	85,5
Low	29	14,5
Attitude		
Good	196	98
Bad	4	2
Practice		
Good	196	98
Bad	4	2
Hepatitis A incidence		
Ever	21	10,5
Never	179	89,5

This analysis was conducted to see the description and distribution of the variables studied, including a description of the knowledge, attitude, practice, and the incidence of hepatitis A for all respondents. The results of univariate analysis are presented in table 1 which shows the frequency distribution data of each variable, it was found that the majority of respondents had good knowledge about hepatitis A, namely 85.5%. The majority of respondents had a good attitude in responding to hepatitis A, namely 98%. Likewise, 98% of the respondents' practice is good. History of hepatitis A infection obtained 10.5% of respondents had been infected and 89.5% had never.

Table 3. Data Analysis of Relationship between Knowledge and Incidence of Hepatitis A Infection

Knowledge	Hepatitis A incidence						OR (95% CI)	p Value
	Ever		Never		Total			
	n	%	n	%	n	%		
High	21	10,5	150	87,7	171	100	1 1,140	0,046*
Low	0	0	29	100	29	100	(1,078-1,206)	
Total	21	10,5	179	89,5	200	100		

Table 3. shows that respondents the majority of respondents with low knowledge had never been infected by HAV (100%). Respondents who had high knowledge, 87,7% had been infected by HAV and 10,5% never had infected by HAV. There is a significant correlation between knowledge with incidence of hepatitis A infection with p value = 0.046 ($\alpha < 0.05$; OR= 1.140). The OR result means level of knowledge was 1.140 times higher because of the incidence of hepatitis A infection ever had before.

Table 4. Data Analysis of the Relationship between Attitude and the Incidence of Hepatitis A Infection

Attitude	Hepatitis A infection						OR (95% CI)	p Value
	Ever		Never		Amount			
	n	%	n	%	n	%		
Good	21	10,5	175	89,3	196	100	1 1,120 (1,067-1,176)	0,489
Bad	0	0	4	100	4	100		
Total	21	10,5	179	89,5	200	100		

Table 4. shows the majority of the respondents who had good attitude, never been infected by HAV (89.3%). Respondents who had good attitude and ever been infected by HAV were 10,5%. Respondents who had bad attitude and never been infected by HAV were 100%. There was no relationship between attitude and incidence of hepatitis A infection with p value = 0.489 ($\alpha > 0.05$; OR=1,120).

Table 5. Data Analysis of the Relationship between Practice and the Incidence of Hepatitis A Infection

Practice	Hepatitis A infection						OR (95% CI)	p Value
	Ever		Never		Amount			
	n	%	n	%	n	%		
Good	21	10,5	17 5	89,3	196	100	1	0,489
							1,120 (1,067-1,176)	
Bad	0	0	4	100	4	100		
Total	21	10,5	179	89,5	200	100		

Table 5. shows the majority of the respondents who have good practice of hepatitis A prevention, but never been infected with HAV (89,3%). Respondents who have good practice of hepatitis A prevention and ever been infected by HAV were 10,5%. All respondents who have bad practice were never been infected by HAV. There were no significant relationship between practice and incidence of hepatitis A infection with p value = 0.489 (α>0.05; OR=1,120).

Discussion:

The majority of the respondents have a high level of knowledge about hepatitis A which is 85,5%. This, because the respondents were all nursing students and learn about the theory of hepatitis A. Only 10,5% of the respondents were experienced being infected by HAV. Even thus, respondents who had ever infected, might have low or high knowledge. But respondents who had never infected of HAV, 100% have low level of knowledge about hepatitis A. This results means that the experience of being infected HAV can increase level of knowledge about hepatitis A. Based on the results obtained, it shows that the level of knowledge about hepatitis A has significant relationship with the incidence of hepatitis A infection with p value = 0.046; (α<0.05; OR=1.140). The level of knowledge was 1.140 times higher because of the incidence of hepatitis A

infection ever had before. The experience of HAV positive has positive role in increasing awareness in nursing students to build higher knowledge, the attitude, and practice toward prevention of HAV infection. The more respondents understand about hepatitis A infection, the more they able to avoid and keep away from the risk of transmission.

Meanwhile, mostly of the respondents have good attitude toward hepatitis A which 98%. This is similar to findings from previous research by Ahmad, et al, (2016). The result shows that there was no significant relationship and the incidence of hepatitis A infection (p value > α). The data shows that majority of the respondents have good attitude toward hepatitis A risk prevention, but never infected by HAV before (89.3%). The respondents who have good attitude toward hepatitis A risk prevention and have been infected was 10,5%. This data shows that whether the respondents had or never had infected, they still have good attitude. This might be related with the high knowledge and their education background. Most of the respondents were female (81,9%) which represented significantly higher proportion of the respondents with better knowledge, similar to findings (Ahmad, et al, 2016).

The result also shows the majority of the respondents have good practice toward hepatitis A risk of infection (98%). There were no significant relationship between practice and the incidence of hepatitis A infection (p value > α). The respondents who have good practice and never been infected were 83.9%. Thus, means that even they never experienced HAV, but their practice in preventing risk of infection is high. It might because of the high level of knowledge in nursing students. They learned how to keep hygiene and healthy life style as a nurse. Another factors also explained in the previous study which hygiene and sanitation, healthy and clean life style, also social economic, might be a factors for students who had good hepatitis A prevention (Septivita, 2020).

There is some potential limitations in this study. Due to the pandemic situation, the data collection was change to online. The difference between online and offline questionnaire might have some biased. Therefore, the researcher adapted the questionnaire according to google form template. Besides that, there is lack of variables being analyzed in this study. The dependent variable analyzed was retrospective. There might be another variables which more relevant to analyze about hepatitis A. This study can be a support data about incidence of hepatitis A in college students in Jember. Another study about hepatitis A can be done in different population so that problem can't break out anymore.

Conclusion:

The experience of having HAV infection has an important role in increasing knowledge of HAV. The higher level of knowledge can lead to better attitude and practice to prevent from HAV infection risk. Even if the attitude and practice itself don't have significant correlation with incidence of HAV infection, but the respondents already have the good attitude and practice toward HAV infection risk. Thus, the respondents were nursing students who had already learned about clean and healthy living behavior.

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