

The Effect of Whatsapp-Based Education on Knowledge and Attitude of Tourism Services on The Management of Toxic Animal Bites

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Abstract Tourism is a form of travel organized from one place to another, within a certain period of time. One of the favorite tourism destinations in Indonesia is Bali. One of the favorite tourist destinations in Bali is the beach area which offers a variety of beautiful marine tourism. Behind this variety of beauty, there are health threats that are dangerous for tourists, both domestic and foreign, such as the threat of animal bites around the beach area. This study aims to determine the effect of Whatsapp-based educational media on the knowledge and attitudes of tourism service providers regarding the management of poisonous animal bites. This research was conducted at Mertasari Beach and Matahari Terbit Beach. The sampling technique used is probability sampling with simple random sampling technique. Respondents were 38 tourism service providers, who were divided into experimental group and control group. The experimental group was given an intervention in the form of education using whatsapp. Collecting data using the respondent's demographic questionnaire, knowledge questionnaire, and attitude questionnaire. Data were analyzed using paired T-Test and unpaired T-Test. The results of the statistical test showed that there was a difference in the mean score of knowledge between the experimental group and the control group of 2,053 (p value = 0,000). For the attitude variable, the results of statistical tests showed that there was a difference in the mean attitude score between the experimental group and the control group of 9,053 (p value = 0.000).

Index Terms— tourism, poisonous animal bites, knowledge, attitude, whatsapp

I. INTRODUCTION

Tourism is a form of travel organized from one place to another, within a certain period. This is done for various purposes, including looking for a job, seeking entertainment, seeking treatment, enjoying the natural/cultural/social beauty of another country or region. According to UU RI Nomor 9 Tahun 1990, tourism is everything related to tourism, including companies of tourist objects and attractions and related businesses. One of the favorite tourism destinations in Indonesia is Bali. Bali is one of the provinces in Indonesia, which consists of one large island with several smaller islands around it. The total area of Bali Province is 5633 km² [1].

Bali and tourism aspects are inseparable. The wealth and natural beauty, as well as the uniqueness of Balinese art and

culture are the main attractions for tourists to visit Bali. The existence of tourism in Bali acts as a source of tax and income not only for the state, but also for local governments and local tourism business providers [2].

One of the favorite tourist destinations in Bali is beach, which offers a variety of beautiful marine tourism. Behind the various kinds of beauty, there are health threats that are dangerous for tourists, both domestic and foreign, such as the threat of attacks / animal bites around the beach area. These animals can be animals that live on land around the coast, such as wild dogs, or animals that live in the waters. The attack of dangerous marine animals is one of the risks faced by tourists. Dangerous marine animals can be divided into two groups, namely sea animals that bite and sea animals that sting. Marine animals that bite include sharks, sea snakes, and sea eels. If these animals attack humans,

they will cause wounds with active bleeding, thus potentially causing death due to bleeding. Meanwhile, attacks by stinging marine animals will usually release toxins that can cause mild to severe allergic responses, such as redness, itching, tightness, and even seizures [3].

Some of the famous beach in Bali, including Sanur Beach, Matahari Terbit Beach, and Mertasari Beach. Many local and foreign tourists who visit this beach. Apart from being strategically located in the center of Denpasar City, the waves are quite calm which is perfect for swimming recreational activities. In addition, there are several underwater tours in this area. To meet the needs of eating and drinking, there are many restaurants, stalls, and even traveling vendors in this area that provide a variety of food and drinks at affordable prices. Various business providers who work around tourist areas play a role not only in providing tourism services in meeting the tourist needs of tourists, but are also responsible for jointly maintaining the comfort and safety of tourists [4].

One of the many business providers in the coastal tourism area is a traveling merchant. Itinerant traders can meet tourists in various tourist areas, so that it can be a milestone for providing basic assistance to tourists who threatened by poisonous animal bites. In order to be able to provide assistance correctly, quickly, and appropriately, tourism business providers need to have adequate knowledge, attitudes, and behaviors regarding the management of poisonous animal bites.

Transmission of knowledge can be obtained through health education. Health education is an empowerment process so that people can maintain and improve their health. This health education can be done through various media, including seeing aids (visual), hearing aids (audio), hearing and seeing aids (audio visual), and writing aids [5].

II. METHOD

This research is a quasi-experimental research. The research design was pre-test and post-test with control group. The population is all tourism service providers, especially itinerant traders in the tourist areas of Mertasari Beach and Matahari Terbit Beach. The sample is 38 people.

The dependent variable was knowledge, attitude, and behavior regarding the management of poisonous animal bites. However, due to the Covid-19 pandemic conditions, the behavioral variables have not been studied further. The independent variable in this study is Whatsapp-based educational media. Data analysis using paired T test and unpaired T test (p value $\leq 0,05$).

III. RESULT

TABLE I
CENTRAL TENDENCY OF PRE-TEST AND POST-TEST
KNOWLEDGE SCORES IN THE EXPERIMENTAL GROUP

	Pre Intervention Knowledge Score	Post Intervention Knowledge Score
Mean	5,00	8,16
Median	5,00	8,00
Modus	4	8
Minimum	3	7

Maximum	7	9
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Based on table 1, it is found that the average score of respondents' knowledge before being given education via Whatsapp is 5,00 with a minimum score of 3 and a maximum value of 7. The average score of respondents' knowledge after being given education through Whatsapp is 8,16 with a minimum score of 7 and maximum score is 9.

TABLE II
CENTRAL TENDENCY OF KNOWLEDGE SCORES IN THE
CONTROL GROUP

	First Day Knowledge Score	Last Day Knowledge Score
Mean	4,58	6,11
Median	5,00	6,00
Modus	3	6
Minimum	3	5
Maximum	6	8

Based on table 2, it was found that the average score of respondents' knowledge on the first day is 4,58 with a minimum score of 3 and a maximum value of 6. The average score of respondents' knowledge on the last day of the study is 6,11 with a minimum score of 5 and a maximum score is 8.

TABLE III
CENTRAL TENDENCY OF PRE-TEST AND POST-TEST ATTITUDE
SCORES IN THE EXPERIMENTAL GROUP

	Pre Intervention Attitude Score	Post Intervention Attitude Score
Mean	27,58	37,89
Median	28,00	38,00
Modus	30	40
Minimum	22	30
Maximum	34	44

Based on table 3, it is found that the average attitude score of respondents before being given education through Whatsapp is 27,58 with a minimum score of 22 and a maximum score is 34. The average score of respondents' attitudes after being given education through Whatsapp is 37,89 with a minimum score of 30 and maximum score is 44.

TABLE IV
CENTRAL TENDENCY OF ATTITUDE SCORES IN THE CONTROL
GROUP

	First Day Attitude Score	Last Day Attitude Score
Mean	24,63	28,84
Median	24,00	28,00
Modus	24	30
Minimum	20	20
Maximum	34	40

Based on table 4, the results show that the average attitude score of the respondents on the first day of the study is 24,63 with a minimum score of 20 and a maximum value of 34. The average score of respondents' attitudes on the last day is 28,84 with a minimum score of 20 and a maximum value is 40.

TABLE V
DIFFERENCE IN KNOWLEDGE AND ATTITUDES BETWEEN THE
EXPERIMENTAL GROUP AND CONTROL GROUP

Variable	Mean	p value
Knowledge	2,053	0,000
Attitude	9,053	0,000

Based on table 5, the results of statistical tests with unpaired T-tests show that there is a difference in the average knowledge score between the experimental group and the control group of 2,053. The results of the significance test showed p value = 0,000. The test results also show that there is a difference in the mean attitude score between the experimental group and the control group of 9,053. The results of the significance test showed p = 0,000

IV. DISCUSSION

Health education can done through various media. WhatsApp is a popular technology that has the potential to be use as a learning tool. The WhatsApp Group feature is able to build a fun learning related to the various discussion topics given. WhatsApp Group has pedagogical, social, and technological benefits [6]. The results of this study indicate that the use of WhatsApp can affect the improvement of both knowledge and attitude aspects (p value = 0,000).

This is supported by the research of Salsabilla, Subaris, & Werdani (2018) which found that there was a difference in the average score of knowledge and attitudes of young women before and after being given an intervention through WhatsApp Messenger (p< 0,001) [7].

The use of WhatsApp in the health sector is part of the mobile health application. This application covers all medical or public health practices using mobile devices, such as mobile phones, personal digital assistants (PDAs), and other wireless devices [8]. The use of WhatsApp provides several advantages when compared to conventional health services, namely being able to provide health services with the same quantity and quality to everyone, being able to provide different health services or tailored to their needs if desired, being able to control health behavior on a regular basis, being able to reduce stigma. The community towards some health behaviors that are sensitive according to norms and habits, and are able to provide effective health services on a regular basis in areas far from the reach of health care facilities. Mobile phones that are always carried and used in daily activities allow WhatsApp to be able to monitor health behavior and identify current health behaviors, obstacles, and strategies to improve health behaviors [9]. The use of WhatsApp is able to send health messages quickly to many people at a relatively low cost [10].

V. CONCLUSION

The results of the bivariate test showed that there was a significant difference in knowledge and attitude scores between the experimental group and the control group with p value = 0,000.

Tourism service providers should further develop their basic knowledge regarding the management of poisonous animal bites, either through other educational media or social media. Tourism service providers also need to build an assertive attitude if later there are tourists who need first aid when experiencing the incident.

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