Analysis of the Health and Safety Behaviour of Domestic Tourists During Their Travels

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ABSTRACT

Introduction: Indonesia’s tourism continues to grow annually despite increasing competition in the sector. This study assesses the risk behavior of Indonesian domestic tourists in shopping areas in the Special Region of Yogyakarta, particularly in terms of health and safety.

Methods: This quantitative research used a cross-sectional approach and was conducted in shopping areas in the Special Region of Yogyakarta. Using accidental sampling, 212 domestic tourists aged at least 17 years were selected as respondents. This study incorporated primary data that were collected from questionnaires asking about the characteristics of the respondents and their knowledge, attitudes, and behavior concerning healthy and safe travel, and was examined using univariate and bivariate analyses.

Results: More than 70% of the respondents were female and teenagers (17-24 years old). Approximately 53% of the respondents had low education, but most had good knowledge, positive attitudes, and good behavior towards travel health and safety. Thus, gender (p-value = 0.000) and tourist attitudes (p-value = 0.000) were significantly associated with health and safety behaviors during travel.

Conclusion: The findings show that domestic tourists have good knowledge of and positive attitudes towards travel health and safety risks.

Keywords: behaviour, domestic tourists, healthy tourism, health and safety, travel

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INTRODUCTION

Indonesia is a vast and culturally rich country, with various races, ethnicities, and ethnic groups. Each region has creative tourism potential, making Indonesia one of the tourist destinations of choice for tourists (Novianti, Nugraha and Zahra, 2021). The Central Statistics Agency noted that the number of foreign tourist arrivals in 2021 was only 1.56 million, a decrease of 61.57% compared to those in 2020 due to the Covid-19-induced policy of restricting crossings for foreigners. Cumulatively, the number of foreign tourists visiting the country from January to July 2021 was 937.75 thousand visits, a 71.42% decrease compared to the 3.28 million visits during the same period in the previous year. However, compared with June 2021, the number of visits in July 2021 increased by 1.25%, and the hotel occupancy rate reached 22.38%. The average length of stay of starred hotels increased by 0.16 points, a 1.82-day increase from the previous year (Badan Pusat Statistika, 2021).

According to the national tourism map, the potential of the Special Region of Yogyakarta (for the rest of the article, it is referred to as Yogyakarta) is second after Bali. This assessment is based on factors that strengthen tourism development in Yogyakarta. The first consideration is tourism object diversity. Based on its various predicates, Yogyakarta has a relatively wide diversity of physical and nonphysical tourist objects. Besides its tourism support facility readiness, Yogyakarta has relatively high-quality human resources for educational cities. The second consideration relates to the various specifications of objects with solid and unique characteristics, such as the palace, Prambanan temple, and silver crafts in Kotagede. These object specifications are supported by harmonious combinations of physical and non-physical tourism objects (Vikanaswari,
Yogyakarta has always been a destination for both domestic and foreign tourists. The evidence is the award it has received as a city with the best service and as Indonesia’s four favorite cities (Nursita, 2020).

Tourism areas in Yogyakarta grow annually, as indicated by the high number of visitors. Data from the Tourism Statistics Book indicate an upward trend in the number of tourists visiting the province in 2019; there were 24,339,133 domestic tourists and 651,281 foreign tourists (Wicaksono, 2020). This increase certainly has a very complex impact, both positive and negative, on its tourists and attractions, as well as on tourism managers and policy makers.

One of the tourism sectors with the most significant income is yogyakarta (Pradana and Mahendra, 2021). In addition to revenue, health problems also affect tourist areas. An increase in the number of tourists will also lead to an increase in health and safety risks.

According to Blum, public health cannot be simply achieved, as it is influenced by factors such as environment, behavior, health services, and heredity (Yuana, Larasati and Berawi, 2021). Although the environment has a more significant effect than the other factors, people’s behavior is not an inferior factor. Environmental and unhealthy behaviors can cause various human diseases (Saptandari, 2020). The key factors determining tourist risk are the mode of transportation, destination, duration and season of travel, accommodation standards, food hygiene, and health essentials of tourists (Merati et al., 2019).

Tourism affects not only visitors, but also the host community (Handayani, 2021). Individuals who travel from one place to another can become disease carrier, transmitting the illness to individuals and communities from their place/country of origin to their destination. Some individuals have unhealthy habits and lifestyles, such as smoking and using drugs and narcotics, and transfer them to the community members of their destinations. Individuals are also vulnerable to germs that enter their bodies during trips and when they arrive at their destinations. The predisposing factors influencing the formation of behaviors are personal knowledge and attitudes (Aspiani and Rustiawan, 2020). The World Health Organization explains that travellers are often exposed to sudden and dramatic changes in environmental conditions, which may have an adverse effect on their health and well-being. Travel may involve major changes in altitude, temperature, and humidity as well as exposure to microbes, animals, and insects. The negative impact of sudden environmental changes can be minimized by taking simple precautions. Height, heat, humidity, ultraviolet radiation from the sun, health risks borne by food and water, tourist diarrhea, recreational waters, animals and insects, and intestinal parasites are health risks that can occur during travel (World Health Organization, 2020).

Accidents are another risk that may threaten tourists in relation to safety amidst the increasing number of tourists is accident (Kusyati and Yusma, 2017). Accidents or emergencies that may occur in tourism sites include loss of consciousness due to being dragged by the current/drowning, injuries, sprains, fractures, dislocations, falls, cardiac arrest, etc. (Rustandi et al., 2022).

A previous study conducted to identify potential health and safety risks for tourists in Malioboro and Beringharjo reported the presence of physical, chemical, biological, and psychological risks such as slipping, hand/foot injuries, exhaustion, tiredness, dizziness, fainting, eye irritation, skin irritation, coughing, shortness of breath, nausea, psychological trauma, diarrhea, Hepatitis A, dysentery, poison, noise, sexual crimes, and even death, while road crossings are another place with possible hazards (Agustin, Rifai and Agustinaningsih, 2020). Pelican crossings exist in Malioboro and Beringharjo; however, passing cars may still cause obstacles, traffic bottlenecks, and accidents. There are 16 zebra crossings along Malioboro and Jalan Ahmad Yani, but they are not used properly because of low pedestrian awareness and traffic officers’ watches (Yang and Nair, 2014). Tourists about to have trips should know the potential hazards at their destination and understand what is best to do to protect their health and minimize the risk of disease transmission and accidents. Therefore, this study aims to analyze domestic tourists’ risk behavior regarding health and safety in two shopping tourism locations in the Special Region of Yogyakarta: Beringharjo and Malioboro markets.

METHODS

This observational descriptive study was conducted using a cross-sectional design in August 2019, before the pandemic occurred in two world-famous areas of Yogyakarta, Indonesia: Malioboro and Beringharjo.

The population of this study was domestic tourists were travelling during the data collection
period. The sample was limited to local tourists who were at their productive age (both women and men) and were willing to become respondents. The samples were selected using an accidental sampling technique, the number of which was determined using the Lemeshow formula for unknown populations, as follows:

\[ n = \frac{Z^2 \times P(1-P)}{d^2} = 96.04 \approx 96 \]

Note:
- \( n \) = Number of Samples; \( Z = z \)-score at 95% confidence level = 1.96; \( P = \) maximum estimate = 0.5; \( d = \) alpha (0.10) or sampling error = 10%.

The results of the calculations suggested the incorporation of 96 respondents. The number was increased by 10% if some of the questionnaires were not completed correctly, resulting in 106 respondents for each tourist location. As this study used two tourism sites, the number was multiplied by two and 212 samples were used.

This study uses Green’s theory to determine independent and dependent variables. Predisposing factors are individual characteristics, knowledge level, and attitudes (Green and Kreuter, 1999), while domestic tourists’ health and safety behaviors are used as the dependent variable.

The research data were collected via questionnaires, asking the respondents about their individual characteristics, knowledge level, attitudes, and behaviors. The individual characteristics were age, sex, and education level, and the respondents’ ages were categorized into adolescents (17-25) and adults (25-50). Gender was divided into two categories, male and female, while education level was divided into two categories: primary education (elementary school to senior high school) and higher education (university and above).

Respondents’ knowledge was assessed using questions about their health and safety before, during, and after their trip, and they were then categorized as either good or poor. Their attitudes were measured using questions regarding their perspectives on healthy and safe travel, and the responses were then categorized as either positive or negative. The dependent variable, travel health and safety behavior among domestic tourists, was categorized into two categories: good and poor.

The study was analyzed using univariate and bivariate tests. As the former was measured using the frequency distribution of each variable, the latter was performed using the chi-square test by reading the p-value and cross-tabulation table (cross tab). This research received ethical approval from the University of Ahmad Dahlan’s Research Ethics Committee (number 011805071/2019).

RESULT

Characteristics of Respondents

Table 1 contains the frequency distribution that describes the respondents’ characteristics, which can be observed through the univariate analysis of all variables. The characteristics were gender, age, education level, behavior, and attitudes. The categories of sex were male and female. Table 1 shows that most of the respondents were women (163 out of 212). and the rest are male. Most of the respondents were adolescents (78.8%); their ages ranged from 17 to 24 years, while the adult respondents, whose ages ranged from 25 to 50 years, were 45. Of the 212 respondents, 113 still had low knowledge. Respondents with education between elementary and junior high schools were considered to have low education. Only 74 out of 212 local tourists had poor travel health and safety.

Table 1. The Characteristics of Domestic Tourists in Beringharjo and Malioboro, 2019 (N=212)

<table>
<thead>
<tr>
<th>Variables</th>
<th>N</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>163</td>
<td>76.9</td>
</tr>
<tr>
<td>Male</td>
<td>49</td>
<td>23.1</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adolescents (17-24 years)</td>
<td>167</td>
<td>78.8</td>
</tr>
<tr>
<td>Adult (25-50 years)</td>
<td>45</td>
<td>21.2</td>
</tr>
<tr>
<td>Level of Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>113</td>
<td>53.3</td>
</tr>
<tr>
<td>High</td>
<td>99</td>
<td>46.7</td>
</tr>
<tr>
<td>Knowledge Level</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poor</td>
<td>74</td>
<td>34.9</td>
</tr>
<tr>
<td>Good</td>
<td>138</td>
<td>65.1</td>
</tr>
<tr>
<td>Attitude</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negative</td>
<td>80</td>
<td>37.7</td>
</tr>
<tr>
<td>Positive</td>
<td>132</td>
<td>62.3</td>
</tr>
<tr>
<td>Behaviour</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poor</td>
<td>86</td>
<td>40.6</td>
</tr>
<tr>
<td>Good</td>
<td>126</td>
<td>54.9</td>
</tr>
</tbody>
</table>
knowledge, and the remaining 65.1% had good knowledge. Approximately 60% of domestic tourists had a positive attitude towards travel health and safety, while 37.7% had a negative attitude. Finally, 126 out of 212 people had good behavior in terms of travel health and safety, while 86 people (40.6%) had poor behavior.

**Correlation Between Variables**

The relationships between the variables were assessed through bivariate analysis using the chi-square test (Table 2). The gender and attitudes of domestic tourists in the Beringharjo and Malioboro markets were proven to have a significant relationship with their health and safety behavior ($p = 0.000$). However, the other variables do not have a significant relationship with the dependent variable. The results of the cross-tabulation indicate good behavior towards all of the independent variables. The older group of tourists tended to exhibit better behavior (57.5%) than their younger counterparts (66.7%).

Respondents with higher education tended to have more favorable behavior in travel health and safety (63.6%) than those with lower education (55.8%). Finally, the assessment of the impact of knowledge level on travel health and safety behavior produced similar results.

**DISCUSSION**

**Correlation Between Characteristics of Respondents and Tourist Behaviour**

Using gender as a factor, this research finds evidence of a theoretical relationship between perceived risk and both travel destinations and behavioral intentions. Perceived risk is higher for women than for men and depends on the type of risk and the characteristics of the destination. Women can cancel their travel plans if they feel at increased risk at their destination. However, the effect of perceived risk on destination image was higher for males than for females. This result proves that there are significant gender differences in the theoretical relationship between risk perception and destination image and intention to visit (Carballo, León and Carballo, 2022). Another study states that there are differences between men and women regarding travel destinations, travel styles, perceptions of tourist destinations, and interest in travelling. A similar study states that women are more willing to change the type of transportation from private to public during a trip. Gender affects the frequency of tourist visits (Hudiono, 2022). Gender can be an essential parameter when assessing modelled behavior. This can be considered when making a policy to change the behavior of men and women equally.

Other variables, such as age, education level, and knowledge about occupational health and safety, had no significant relationship with worker behavior in this study. Younger respondents have more unfavorable behaviors than older ones. Other studies also reveal that people in the younger age category engage in more risky behaviors during travel, such as smoking and drinking alcohol (Lee, Jung and Lee, 2022). Older people are more likely to participate in healthy lifestyle behaviors because of their higher likelihood of morbidity and mortality (Troiano et al., 2008; Kim, Park and Kim, 2021). Several cross-sectional studies have shown a more

| Table 2. The Bivariate Analysis of the Health and Safety Behaviour of Tourist in Beringharjo and Malioboro |
|-----------------------------------------------|-------------------------------------------------|-------------------------------------------------|-------------------------------------------------|-----------------------------|
| Variable                        | Tourist Behaviour | p-value |
|-----------------------------------------------|-------------------------------------------------|-------------------------------------------------|-------------------------------------------------|-----------------------------|
| Gender                           | Poor | n | % | Good | n | % | 0.000 |
| Female                          | 51 | 31.3 | 112 | 68.7 | |
| Male                            | 35 | 71.4 | 14 | 28.6 | |
| Age                             |        | | | | | | | | |
| Adolescents (17-24 years)       | 71 | 42.5 | 96 | 57.5 | 0.346 |
| Adult (25-50 years)             | 15 | 33.3 | 30 | 66.7 | |
| Level of education              |        | | | | | | | | |
| Low                             | 50 | 44.2 | 63 | 55.8 | 0.305 |
| High                            | 36 | 36.4 | 63 | 63.6 | |
| Knowledge level                 |        | | | | | | | | |
| Poor                            | 34 | 46.0 | 40 | 54.0 | 0.307 |
| Good                            | 52 | 37.7 | 86 | 62.3 | |
| Attitude                        |        | | | | | | | | |
| Negative                        | 46 | 57.5 | 34 | 42.2 | 0.000 |
pronounced increase in healthy behavior after the age of 45-50 years (Luke et al., 2011).

Correlation Between Knowledge and Tourist Behaviour

A low level of knowledge of the respondents was found more in those who behaved well during a tour. A low level of knowledge is about travel-related infectious diseases and poor adherence to pre-departure prevention (Bechini et al., 2021). In addition, it has been reported that tourists are reluctant to receive vaccinations to prevent disease transmission before traveling (Lammert et al., 2016; Troiano et al., 2017). This level of knowledge is influenced by the sources of the information. More tourists look for information through online media (Bechini et al., 2021). This need for information can be related to tourists’ education level. Those with higher levels of education conduct more information searches before and during trips (Tjostheim, Tussyadiah and Hoem, 2007; Bechini et al., 2021). In line with this study, respondents with low levels of education had poor occupational health and safety behaviors during travel. Another study explains that bad behavior is exhibited by people with low education (Pratama, 2015; Dita et al., 2019; Meng et al., 2021).

Correlation Between Attitude and Tourist Behaviour

Based on the results of the chi-square test, gender and attitude were significantly influential. The p-value of gender was 0.000 (p-value < 0.05) and that of attitude was 0.000 (p-value < 0.05). Therefore, gender and attitude are related to tourists’ health and safety behaviors in the Beringharjo and Malioboro markets.

Attitude is the willingness or disposition to act on a behavior. It is a reaction to a relatively static object or situation accompanied by certain feelings. It provides the basis for a person to respond to or behave in a certain way (Sari, Safitri and Anggraini, 2019). Another study found a significant relationship between attitudes and survival behavior (Aini and Agustin, 2018). Hence, a significant relationship exists between tourists’ attitudes and their behavior concerning health and safety at tourism sites. A positive attitude allows tourists to behave healthily and safely. The availability of facilities and other supporting facilities, such as food and lodging, insurance for risky activities, safety monitoring, and first aid measures, encourage tourists to be positive while travelling. Another study reported a positive attitude among respondents regarding the practice of protecting the environment during travel activities. However, the number is lower than that of tourists or respondents who only care for the environment at home, not when travelling (Yen, Tsaur and Tsai, 2021).

Local tourists who have a positive attitude towards the incidence of illness because they have been in the area for a long time have easy access to health information (Putri, Damayanti and Diarthini, 2022). A factor that influences the formation of attitudes is travelers’ evaluation of their destination’s safety, which continues after the trip. They tended to remember their experiences and cognitively judge places based on their actual experiences. Dissonance between one's expectations and experiences creates a sense of security. Travellers are more likely to be satisfied with a destination if their experience is better than their anticipation (Zou and Yu, 2022).

Based on the results of this study, not all tourists have the knowledge and attitudes that support healthy and safe behavior while travelling. Various factors can influence a person's decision to act or behave healthily and safely during travel. During their trips, tourists should have good knowledge of their destinations. Tourists with little knowledge of their destinations have lower satisfaction levels (Cárdenas et al., 2021). There should be more efforts and better cross-sectoral cooperation by and between tourists, the government, tourism managers, and the private sector in order to make all tourism areas in Yogyakarta healthy from the perspective of their visitors.

CONCLUSION

Tourism activities are inseparable from health and safety risks, and one of its factors is behavior. Domestic tourists have good behavior regarding the health and safety risks of travelling, and this behavior is supported by adequate knowledge and a positive attitude. Most of the respondents were female and had a low level of education, as they were elementary to junior high school graduates. This research finds a significant relationship between both gender and domestic tourists’ attitudes and tourists’ healthy and safe behavior while travelling in shopping areas in the Special Region of Yogyakarta.
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