Safety Behavior of Medical Staff in Hospital Tourism

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Abstract

Medical staff are critical to the success of hospital tourism services. There is a relationship between the medical staff and medical tourists, particularly in terms of scope of care, quality of care, communication, service coordination, cultural sensitivity, legal and ethical considerations. The purpose of this study is to identify factors influencing the success of medical tourism services in terms of safety behavior of medical staff in providing medical services, and the influence of medical staff's safety knowledge, safety motivation, and safety climate on the safety behavior of medical staff in providing hospital tourism services. This study employed a mixed method of convergent model in a quantitative manner by utilizing a probability sampling method and a basic random sampling method. The data was obtained through questionnaires distributed to 12 of 20 JCI-accredited hospitals in Indonesia. There was a total of 200 respondents, but only 124 of them completed the questionnaire. The data was analyzed using Structural Equation Modeling (SEM). The results show that the safety knowledge, safety motivation, and safety climate influence the safety behaviour of medical staff in providing the hospital tourism services.

Keywords: *Hospital Tourism, Safety Behavior, Safety Knowledge, Safety Motivation, Safety Climate.*

1. Introduction

Hospital tourism is part of medical tourism. The medical tourism can be a source of revenue, job creation, infrastructure development, stimulating development in other related sectors, technology transfer and knowledge exchange, global reputation and soft power, economic diversification, skill enhancement, and R&D opportunities. The globalization of information and transportation technology has considerably promoted the trend of medical tourism in the twenty-first century. The mobilization of poor people from industrialized countries to developing countries appears to be increasing1. The United Nation World Tourism Organization (UNTWO) dashboard provides data on the number of tourists in Asia, including medical tourism actors, through 2022, which is expected to increase2. Patients interested in the medical tourism should seek out healthcare practitioners and institutions that meet the standards, are recognized, and have a track record of successful and safe treatment outcomes3.

One of the reasons developing countries, including Indonesia, have a high competitive position is that their medical services are generally inexpensive but of excellent quality. Medical tourists, health-care providers, government agencies, facilitators, accrediting and

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credentialing authorities, health-care marketers, insurance companies, and infrastructure suppliers are among the eight primary stakeholders in the medical tourism services4. The government must collaborate and develop policies to assist the implementation of medical tourism5, 6, 4.

The three fundamental dimensions of evaluating medical tourism destinations are destination attractiveness, the medical tourism business, and the quality of facilities and services7. Trust, communication interactions, outstanding service, low medical expenses, advanced medical technology, holistic treatments, patient expectations, distance to medical tourism destinations, and appealing tourist attractions all contribute to the growth of medical tourism in Indonesia8. The Ministry of Tourism and Creative Economy's unveiling of the Indonesia Health logo in November 2022 is one sort of initiatives taken by the Indonesian government in promoting the medical tourism.

Dr. Supriyanto Dharmoredjo, Sp.B, M.Kes, Director of Dr. Iskak Regional Public Hospital (Rumah Sakit Umum Daerah, hereinafter referred to as RSUD) of Tulungagung, stated that one of the hospital tourism service strategies at RSUD Dr. Iskak Tulungagung is implemented by combining hospital services with all tourist destinations in Tulungagung (such as Gemah Beach, Popoh, or Wonorejo reservoir). RSUD Dr. Iskak Tulungagung was founded on the concept of nurturing innovation and achieving success. On November 8, 2019, RSUD Dr. Iskak Tulungagung received the Gold Award during the 43rd International Hospital Federation Congress and Award Forum in Oman, UAE9. The success of RSUD Dr. Iskak Tulungagung's hospital tourism services has served as a model for several other institutions establishing similar services, including Academic Hospital of Gajah Mada University, Siloam Karawaci Lippo Village Hospital, and etc.

Medical staff, such as doctors, nurses, and other health professionals, are essential in medical tourism. The medical staff and medical tourists have a relationship, particularly in terms of scope of care, quality of care, communication, service coordination, cultural sensitivity, legal and ethical considerations10. Healthcare providers and patients should conduct research and check the credentials of medical staff and facilities involved in the medical tourism. In general, medical practitioners providing hospital tourism services must have certification and license, as well as special training, language competency, ethical and legal understanding, cultural competency, continuing education support, and authorized facilities. Accreditation by organizations such as the Joint Commission International (JCI), for example, is generally accepted in the healthcare industry.

The Indonesian government issued a Minister of Health Regulation No. 76 of 2015 regulating the development of superior healthcare tourism services through the Ministry of Health. In the construction, hotel, and food industries, researches on the safety behavior, safety knowledge, safety motivation, and safety climate have been widely conducted. The state of the art of this research is that there is only limited study on the medical staff's safety behavior, safety motivation, safety knowledge, and safety climate in the hospital tourism services.

Indonesia is an archipelago country with a variety of world-famous tourist destinations. Indonesia has 26 JCI-accredited hospitals with a strong chance of winning the medical tourism services competition. According to the findings of observations and literature studies on the safety behavior of medical staff in the hospital tourism services, the certification, language competency, ethical and legal understanding, cultural competency, and continuing education support all have a significant impact on the medical staff's safety behavior and the effectiveness of medical tourism services in Indonesia.

Furthermore, based on the findings of the preceding observations, it can be concluded that the medical staff's safety behaviour influences the hospital tourism services as part of the medical tourism. The medical staff's safety behavior is influenced by safety motivation 11,12 , safety knowledge13, 14 and safety climate15, 16. Their experience influences their safety knowledge in medical services, which simultaneously influences the degree of

compliance with regulations17. The medical staff's safety behavior is an attempt to reduce the risk of work accidents, occupational diseases, and material injuries18, 19, suffered by both patients and medical professionals. Training and assessment are required to increase the safety knowledge20, 21 and to ensure individual safety knowledge22. The safety motivation for the medical staff fosters safety-related internal changes in the creation of a safe work environment. It includes intrinsic motivation, and there are three elements driving the intrinsic motivation, including desire, hope, and appreciation24. In addition, the safety climate is a critical part of the organizational setting. It is widely defined as a shared perception of safety policies.

The purpose of this study is to identify factors influencing the success of medical tourism services in terms of safety behavior of medical staff in providing medical services, and the influence of medical staff's safety knowledge, safety motivation, and safety climate on the safety behavior of medical staff in providing hospital tourism services.

2. Literature Review

2.1. Hospital Tourism

Hospital tourism is part of medical tourism. It can be defined as the practice of traveling while receiving medical treatment25. It is relatively a new developing sector. People going for medical tourism for a variety of reasons, including cost savings, faster access, and better access to specialist care supported by facilities and competent medical staff. In order to attract international patients, hospitals providing hospital tourism service or medical tourism service must begin to focus on enhancing their quality, creating infrastructure, networks, and cost effectiveness. Other stakeholders, medical travel facilitators, vendors, and the community must work together to win the fierce competition26.

Figure 1 - A comfortable environment surrounded by cultural treasures which can attract medical tourists

According to the Medical Tourism Association, the medical tourism is most commonly associated with orthopedics, dental treatment, pediatrics, cancer treatment, bariatric surgery, Teleheart & second opinion, cancer treatment, transplants (liver, kidney, and lungs), rehabilitation and geriatrics, stem cell treatment, heart procedure, infertility treatment, and cosmetic surgery7. Short-term medical tourism experiences may have a therapeutic effect on occupational stress, although longer-term experiences may be of greater assistance for recovery and general life satisfaction27.

2.2. Medical Staff

Medical staff are those who work in the health sector and provide medical services to the patients. It also refers to a diverse group of professionals with various tasks and responsibilities, including the doctors, nurses, pharmacists, electro-medics, midwives, and others28.

Figure 2 - A collaboration between scientific disciplines leads to successful medical tourism services

(Figure courtesy of https://medicaltourism.id/)

In practice, the medical staff may commit malpractice if they perform medical operations that violate applicable procedures and cause patients harm29. When performing medical procedures, the medical staff must obtain informed consent from the patients30. In order to avoid legal action, the medical staff must follow norms and the Code of Medical Ethics when practicing their profession31. The medical staff's knowledge has a significant impact on their safety behavior when doing their duties32. Their workload and work stress also have an impact on their performance33. The Global Healthcare Accreditation34 certifies online medical service facilitators and focuses on validating the company's ability to provide the best services to clients in order to promote comfort during the medical travel process.

2.3. Safety Behavior

The behavioral theory helps organize information into patterns that can be used to forecast something35. Meanwhile, safety behavior is protection-related activities carried out by individuals within an entity36. Understanding the characteristics that help or interfere with the performance of specific safety behaviors is critical for creating successful intervention strategies37. Employee safety behavior, in this case the medical staff, is the final attempt to reduce the risk of work accidents, occupational diseases, and material injuries18, 23, 19 and it has a significant influence on safety compliance38, 39, 40. As part of the process of developing the safety behavior, the medical staff require comprehensive written and verbal instructions from the management and the Occupational Health Safety unit.

The role of safety leadership in building a safety climate will aid in the continuous implementation of safety behavior41. However, the workers' safety behavior is not directly related to their capacity to identify hazardous work conditions42. Therefore, in order to investigate the safety behavior, it is important to understand how individuals act safely and implement the safety in everyday life43. This study strives to investigate the relationship between the relationships between the medical staff's safety knowledge, safety motivation, and safety climate on the safety behavior.

2.4. Safety Motivation

The safety motivation can be developed at both the organization and individual levels. The Maslow's hierarchy of needs and McGregor's Theory X and Theory Y, Herzberg's two-factor theory, McClelland's three needs theory are the initial foundation of motivation44. The medical staff create a motivation for the safety and safety-related improvements both individually and collaboratively in an effort to promote a safe work environment45. The safety motivation includes four variables, including goal, priority, reinforcement, and feedback46. Further, intrinsic motivation is part of the safety motivation. It is mainly influenced by 3 factors, such as desire, hope, and appreciation24. Individual safety compliance and safety participation are critical when developing the safety motivation47. As an intermediary factor, the influence of safety intervention on safety motivation is dependent on the internal safety locus of control48. Professional groups have higher levels

of safety motivation, therefore the intervention is required for other groups49. Work motivation has a partial positive effect on the employee performance50.

2.5.   Safety Knowledge

Knowledge is facts, truths, or information obtained through experience or learning (a posteriori) or introspection (a priori). An individual's knowledge is the information that he or she is aware of. It is not restricted to descriptions, hypotheses, concepts, theories, principles, and methods that are true or beneficial according to Bayesian probability. It has the power to both explicitly and implicitly influence a behaviour 51. It is highly required in an organization. In this context of study, differences in education and background differentiate each individual's safety knowledge in the exchange and addition of knowledge amongst the staff52. The safety knowledge in the nursing services is influenced by experiences53, and it considerably affects the safety attitude54, as well as the level of compliance with regulations17 and mediates transformational leadership on safety behavior55. Poor food safety knowledge has a detrimental impact on food safety56 and individual behaivor57, 58, thus training to increase the safety knowledge 20, 21 and assessment to guarantee individual safety knowledge22 are required.

2.6.   Safety Climate

Safety climate is a critical part of the organizational setting. It is broadly defined as the shared impression of an organization's safety rules, procedures, and practices. Additional characteristics of organizational safety climate exist, most notably diversity in climate perceptions among organizational subunits and individuals in different roles within an organization59. Perceptions of work environment features can be shared across teams, companies, work groups, and important attributes of safety climate 60 by developing an integrative definition of the construct61. The lack of institutional commitment to workplace safety correlates to a rise in workplace accidents 62. Due to the multi-level character of safety climate, psychometric evaluation of safety climate as a multi-level construct is rarely investigated, and measurements and consensus on safety climate are rarely conducted64.
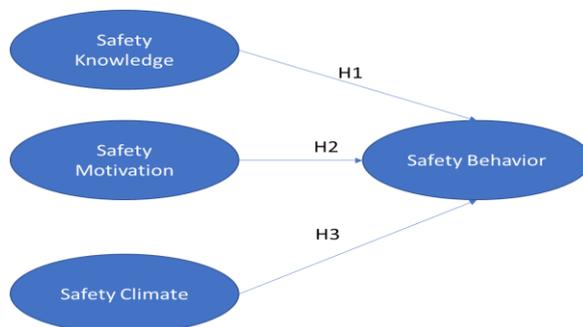
2.7.   Hypothesis Development

Figure 3- Research framework

2.7.1.   Safety Knowledge and Safety Behavior

Hospitals recognize that safety culture is part of organizational culture by implementing policies and procedures that cover the norms of the entire organization. In a study by Osman et al. (2019) in the Saudi Micro, Small, and Medium Enterprise (MSME) industry, it was discovered that the safety attitude, safety knowledge, and safety motivation all had a significant impact on the safety behavior15. The medical staff's safety knowledge is critical in establishing a sense of security and comfort in health services; and their safety knowledge influences the safety attitude, which in turn influences the safety behavior65. Li et al. (2019) discovered that in the Chinese coal mining industry, the safety behavior was controlled by miners' safety attitude, and that the miners' safety attitude could not be separated from the training on safety knowledge66. Construction is one of the industries that is prone to workplace accidents. Fang et al. (2020) discovered three keys to safety

management: safety culture, safety leadership, and safety behavior. For these reasons, the first hypothesis that can be proposed is as follows:

H1 = There is a positive influence of safety knowledge on the safety behavior.

2.7.2. Safety Motivation and Safety Behavior

Behavioral factors are critical in preventing workplace injuries and accidents. Nykanen et al. (2019) discovered that the safety motivation strongly influenced the safety behavior in their locus control study at 8 vocational schools in Finland48. In this context of study, intrinsic motivation has a significant impact on the medical staff's safety motivation. Similarly, Zulkifly et al. (2021) found that the safety motivation influenced the safety behavior in the public cleaning service industry67. According to Xia et al. (2020), risk perception had a significant impact on the employee safety motivation. The function of leadership in China's factory service business affected the workers' safety motivation and safety behavior11. Basahel (2021) investigated the relationship between safety leadership and safety motivation, safety knowledge, and safety attitude toward safety behavior in the Saudi construction industry and discovered that the safety motivation positively promoted the safety behavior65. Bunner et al. (2018) found that the safety motivation promoted raising the degree of safety performance in their study of workplace incidents in Austria, which was preceded by the safety behavior from corporate workers68. It is expected that the medical staff with high safety motivation will improve their safety behavior when giving services to the patients. Therefore, the second hypothesis that can be proposed is as follows:

H2 = There is a positive influence of safety motivation on the safety behavior.

2.7.3. Safety Climate and Safety Behavior

The safety climate is a critical part of the organizational setting. It is defined roughly as a shared perception of safety policies. According to Zhang et al (2002), the safety climate is a measurement of temporary safety culture circumstances that are vulnerable to similarities in individual views of the organization. Wiegman et al. (2004) divided the safety climate into three categories: (a) safety climate is a psychological phenomenon that is typically characterized as an individual's impression of safety conditions at a given time; (b) safety climate is related to intangible issues, such as situations and environmental elements; (c) safety climate is a transient phenomenon, a "snapshot" of safety culture that is unstable and subject to change. The safety climate has four dimensions: (a) top executives' attitudes, (b) safety supervision, (c) environmental safety, and (d) implementation of safety education and training63. The lack of an institutional commitment to safety contributes to an increase in laboratory accidents62. Leader-member exchange (LMX) was also found to have a negative impact on the safety climate69. Thus, the third hypothesis that can be proposed is as follows:

H3: There is a positive influence of safety climate on the safety behavior.

3. Methodology

3.1. Research Setting

This study was conducted on July 2023 – September 2023. This study began with a study literature review (SLR) of papers containing the keywords 'hospital tourism' and 'medical staff'. The publish or perish application is used to obtain the journals. Titles, abstracts, keywords, and overall substance of journals were used to select them. The journals were limited to those published by Elsievier, Emerald, Springer, Taylor & Francis, and Wiley between 2020 and 2023. The researchers then communicated, obtained, and processed the data. The results of distributing questionnaires to 12 out of JCI-accredited 20 hospitals were in quantitative data on the influence of medical staff's safety knowledge, safety motivation,

and safety climate on the safety behavior. These 12 hospitals were accredited by JCI and had been approved by the Ministry of Health of the Republic of Indonesia to provide the medical tourism services. The researchers collected qualitative data from specialists in the field of medical tourism services. The data was collected by searching for more detailed information on social media and conducting interviews.

3.2. Population and Sample

The population of this study consisted of medical staff performing medical operations on medical tourism patients. The respondents included doctors, nurses, and others. The target number of responses was 200, however each hospital had a different quantity and mix of medical staff and only 124 respondents who completed the questionnaire. The data collected, as well as the identities of the respondents, were kept private. The respondents had the identification of researchers and the right to know the outcomes of study through direct communication with the researchers. Further, the qualitative data was collected by gathering the information from individuals who were familiar with the medical tourism.

Based on the results of this study, it was found that the professions of medical staff involved were doctors (16.13%), nurses (14.52%) and others (69.35%). Only few of them who had worked for one year (4.03%), but mostly they had worked for one to five years (19.25%), six to ten year (14.52%), eleven to fifteen years (21.77%), and even more than fifteen year (40.32%). 48.39% of them had a diploma degree, 33.87% had a bachelor's degree, and 17.74% had a masters' degree. Their ages varied from 20-25 years old (8.6%), 26-30 years old (11.29%), 30-35 years old (17.74%), 36-40 years old (14.52%), and even over 40 years old (48.39%).

3.3. Research Methodology

The research was conducted using a combination of method and incorporated both qualitative and quantitative data to get new and more complete insights or metaferences than could be acquired from quantitative or qualitative data alone70. The qualitative data assisted the researchers in understanding the processes, particularly those that emerged over time, in order to examine factors that influenced the safety behavior of hospital tourism officers. Interviews and phenomenology were used in the qualitative research method. The researchers also employed a sampling method combining a probability sampling method with a basic random sampling technique to conduct a quantitative approach in mixed techniques. Structural Equation Modeling (SEM) approach was used to analyze the quantitative data. The quantitative data had the capacity to provide measurable evidence, assisting in the determination of probable cause and effect. The researchers utilized a triangulation variant design with a convergent model in their mixed method research.

4.   Results and Discussion

4.1.   Results

This study employed measurement model (outer model), structural model (inner model), and hypothesis testing. The outer model picturized the relationship between each indicator and the latent variable, while the inner model described the relationship between the latent variables based on the research problems / hypotheses. In the hypothesis testing this study employed the bootstrapping method to determine whether there was a significant relationship between the latent variables.

4.1.1.   Descriptive Statistics

Descriptive statistics were a set of statistics providing descriptive information about the data collected from the respondents, such as frequency, mean, and standard deviation. The main tendency of the mean, minimum, and maximum values were measured, and the standard deviation displayed the amount of variability in the data and highlighted how far

the data values were normally from the mean value. In this study, 1 is the lowest scale (Strongly Disagree), and 5 is the highest scale (Strongly Agree). The descriptive statistics of all variables in this study can be seen in the following tables:

Table 1 - Descriptive Statistics of Safety Knowledge

Item		Mean	Median	Min.	Max.	St. Dev.
SK1	I understand how to do my job safely.	4.373	4	3	5	0.559
SK2	I understand how to use Occupational Health Safety equipment and its standard procedure.	4.245	4	3	5	0.568
SK3	I understand how to maintain or improve the Occupational Health Safety.	4.216	4	3	5	0.517
SK4	I understand how to reduce the risks of accidents and incidents in the workplace.	4.245	4	3	5	0.513
SK5	I understand all dangers involved with my job and the precautions that must be taken when performing it.	4.216	4	3	5	0.571
SK6	I understand what to do and when to report if there is any potential threat in my workplace.	4.304	4	3	5	0.52

Source: Processed data (2023)

Table 2 - Descriptive Statistics of Safety Motivation, Safety Climate dan Safety Behavior

Item		Mean	Median	Min.	Max.	St. Dev.
SM1	I believe that it is critical to maintain the Occupational Health Safety at all times.	4.51	5	3	5	0.556
SM2	I believe that the Occupational Health Safety in the workplace is critical.	4.451	4	3	5	0.536
SM3	I believe that there should be efforts to reduce accidents and incidents in the workplace.	4.382	4	3	5	0.525
SM4	I believe that the Occupational Health Safety system can promote better patient care.	4.402	4	3	5	0.529
SM5	I believe that it is critical to urge others to act responsibly.	4.353	4	3	5	0.517
SM6	I believe that it is critical to promote the Occupational Health Safety program.	4.441	4	3	5	0.553
SC1	My management is committed to safety.	3.951	4	1	5	0.6
SC2	All staff in the hospital are involved in the Occupational Health Safety management.	3.882	4	3	5	0.529

Item		Mean	Median	Min.	Max.	St. Dev.
SC3	People who violate the Occupational Health Safety procedure will face harsh consequences from my colleagues.	3.961	4	3	5	0.559
SC4	Me and my colleagues both hold the same perspective about the Occupational Health Safety standards and procedures.	4.225	4	3	5	0.558
SC5	My office has sufficient resources to maintain the Occupational Health Safety standards.	3.941	4	3	5	0.623
SC6	My office has effective communication about the Occupational Health Safety issues between the management and employees.	4.363	4	3	5	0.574
SB1	I frequently go above and beyond to improve the workplace safety.	4.363	4	3	5	0.556
SB2	I frequently volunteer for tasks or activities that help improve the workplace safety.	4.343	4	3	5	0.533
SB3	I consistently adhere to all safety procedures for the work I do.	4.422	4	4	5	0.494
SB4	I always return all equipment to its designated spot after use.	4.098	4	3	5	0.432
SB5	Before I start working, I check for any Occupational Health Safety equipment I might need.	4.069	4	2	5	0.449
SB6	I always comply with the Occupational Health Safety regulations at work.	4.167	4	2	5	0.466

Source: Processed data (2023)

The safety knowledge (SK), safety motivation (SM), safety climate (SC), and safety behavior (SB) have 6 indicators each. Their lowest mean values are 4.216, 4.343, 3.882, and 4.069, and the highest mean values are 4.373, 4.451, 4.363, and 4.422 respectively. This indicated that most of the respondents were more likely to respond 'Agree' to the questionnaire items. Meanwhile, the standard deviation value ranges from 0.432 – 0.623, showing that the data dispersion is far from the average.

4.1.2. Inferential Statistics

Inferential statistics were used to describe the relationship between variables. They could describe a conclusion of a study by describing the relationship between two variables71. In this study, the inferential statistics described the relationships between the independent, intervening, and dependent variables. The description of these variables' interrelationships sought to draw conclusions for the entire population based on the data based on the samples analyzed. They referred to statistical conclusions drawn from the sample data about the population of interest to the researchers71. The SmartPLS 3.0 was used to process the data from the questionnaires distributed to 124 respondents in this study. Outer model and inner model methods were employed as inferential statistical analysis tools.

4.1.2.1. Results of Convergent Validity Test

All indicators are valid in the first convergent validity test for factor loading since their values are higher than 0.70. The results of the convergent validity test are shown in Table 3 below:

Table 3- Results of Convergent Validity Test

	Original Sample	Mean	Standard Deviation	T-Statistics	P-Value
SB1 <- Safety Behaviour	0.819	0.820	0.036	22.564	0.000
SB2 <- Safety Behaviour	0.798	0.802	0.033	24.480	0.000
SB3 <- Safety Behaviour	0.807	0.809	0.041	19.806	0.000
SB4 <- Safety Behaviour	0.714	0.706	0.088	8.115	0.000
SB5 <- Safety Behaviour	0.712	0.704	0.078	9.139	0.000
SB6 <- Safety Behaviour	0.717	0.709	0.067	10.656	0.000
SC1 <- Safety Climate	0.725	0.730	0.104	6.998	0.000
SC2 <- Safety Climate	0.752	0.744	0.065	11.649	0.000
SC3 <- Safety Climate	0.773	0.756	0.063	12.212	0.000
SC4 <- Safety Climate	0.724	0.723	0.066	10.887	0.000
SC5 <- Safety Climate	0.723	0.719	0.065	11.118	0.000
SC6 <- Safety Climate	0.739	0.746	0.036	20.334	0.000
SK1 <- Safety Knowledge	0.801	0.800	0.038	21.138	0.000
SK2 <- Safety Knowledge	0.735	0.732	0.059	12.546	0.000
SK3 <- Safety Knowledge	0.839	0.837	0.030	27.773	0.000
SK4 <- Safety Knowledge	0.836	0.835	0.035	24.163	0.000
SK5 <- Safety Knowledge	0.843	0.842	0.029	28.929	0.000
SK6 <- Safety Knowledge	0.842	0.842	0.033	25.887	0.000
SM1 <- Safety Motivation	0.793	0.789	0.048	16.688	0.000
SM2 <- Safety Motivation	0.814	0.810	0.050	16.377	0.000
SM3 <- Safety Motivation	0.851	0.848	0.035	24.613	0.000
SM4 <- Safety Motivation	0.841	0.841	0.038	22.309	0.000
SM5 <- Safety Motivation	0.869	0.867	0.031	27.938	0.000

	Original Sample	Mean	Standard Deviation	T-Statistics	P-Value
SM6 <- Safety Motivation	0.708	0.702	0.067	10.603	0.000

Source: Processed data (2023)

The results of convergent validity test using the AVE values demonstrate that all variables are valid.

Table 4- Results of Reliability and Validity Tests

	Cronbach's Alpha	rho_A	CR	AVE
Safety Climate	0.839	0.858	0.878	0.547
Safety Motivation	0.898	0.904	0.922	0.663
Safety Behavior	0.857	0.865	0.893	0.582
Safety Knowledge	0.9	0.9	0.923	0.667

Source: Processed data (2023)

Table 4 shows that all Cronbach's Alpha and CR values are higher than 0.7. This indicated that all variables are reliable. Similarly, all AVE values are higher than 0.5, indicating that all variables are reliable.

4.1.2.2. Results of Discriminant Validity Test

The results of discriminant validity test are presented in the following Table 5. The top rows of all variables have bigger values in each group, indicating that the discriminant validity is considered good.

Table 5 - Results of Discriminant Validity Test

	Safety Climate	Safety Motivation	Safety Behaviour	Safety Knowledge
Safety Climate	0.739			
Safety Motivation	0.692	0.815		
Safety Behaviour	0.763	0.781	0.763	
Safety Knowledge	0.787	0.718	0.825	0.817

Source: Processed data (2023)

The results of discriminant validity indicate that all cross-loading values between indicators and variables were valid, since all values are greater than 0.70 – which was a practical rule for the discriminant validity test utilizing the cross loading values. The measures of discriminant validity of constructs should not theoretically be related to each other, meanwhile, the measures of convergent validity of constructs should theoretically be related to each other. The construct validity included both convergent and discriminative validity. As a result, proving that all indicators were valid led to the conclusion that the constructs were valid, and thus the reliability test, as well as an inner model test consisting of R-Squared and significance evaluations, could be performed. Table 6 shows the results of discriminant validity tests with cross-loadings.

Table 6 - Cross-Loading Values

	Safety Climate	Safety Motivation	Safety Behaviour	Safety Knowledge
SB1	0.651	0.671	0.819	0.685
SB2	0.618	0.696	0.798	0.728
SB3	0.572	0.669	0.807	0.654
SB4	0.606	0.495	0.714	0.652
SB5	0.59	0.508	0.712	0.567
SB6	0.417	0.485	0.717	0.426
SC1	0.725	0.388	0.54	0.487
SC2	0.752	0.39	0.434	0.484
SC3	0.773	0.468	0.424	0.448
SC4	0.724	0.565	0.525	0.606
SC5	0.723	0.439	0.485	0.479
SC6	0.739	0.69	0.795	0.812
SK1	0.558	0.558	0.669	0.801
SK2	0.605	0.439	0.65	0.735
SK3	0.692	0.518	0.675	0.839
SK4	0.629	0.635	0.661	0.836
SK5	0.686	0.668	0.694	0.843
SK6	0.682	0.69	0.689	0.842
SM1	0.558	0.793	0.63	0.506
SM2	0.471	0.814	0.558	0.504
SM3	0.64	0.851	0.681	0.684
SM4	0.596	0.841	0.69	0.628
SM5	0.59	0.869	0.691	0.6
SM6	0.508	0.708	0.544	0.571

Source: Processed data (2023)

The Heterotrait-Monotrait (HTMT) ratio was used to perform the discriminant validity test. The results can be seen in the following Table 7:

Table 7 - HTMT Ratio

	Safety Climate	Safety Motivation	Safety Behaviour
Safety Motivation	0.756		
Safety Behaviour	0.841	0.873	
Safety Knowledge	0.856	0.796	0.924

Source: Processed data (2023)

Based on the HTMT ratio measurement, all of the variables in this study are considered good, since they do not exceed the measurement limit of one72. This demonstrates that the existing variables are valid and not correlated to one another.
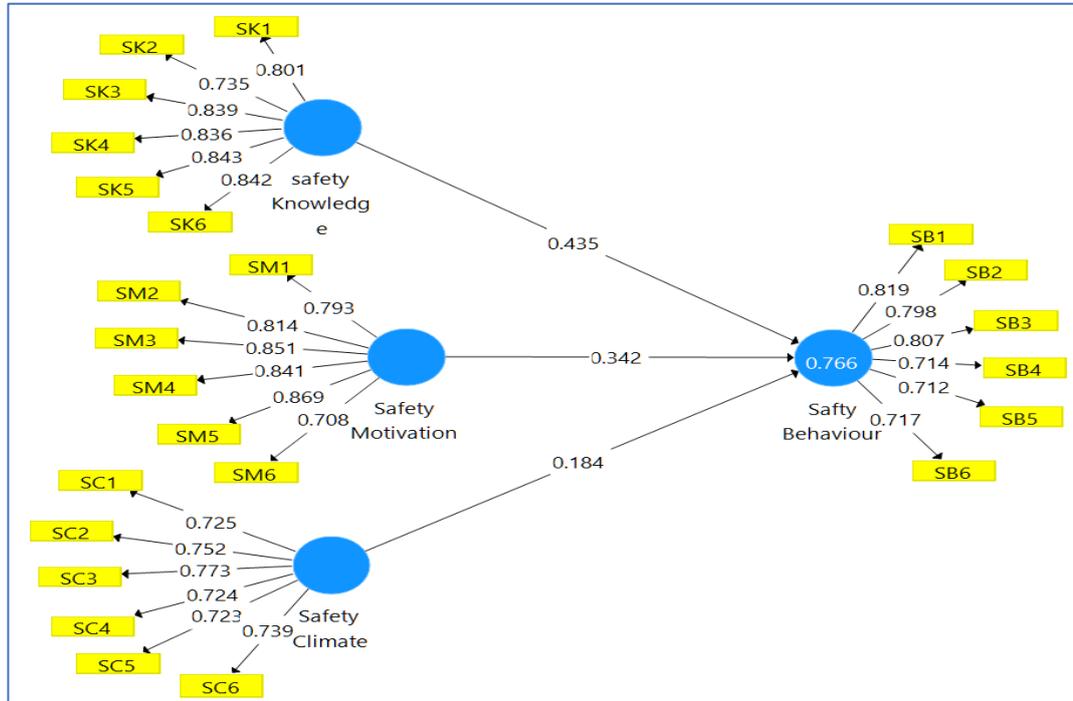
Outer Model

Figure 4 - Outer Loading

4.1.3. R-Squared Evaluation

The R-squared evaluation must be performed to measure the structural model. Using SmartPLS 3.0 software - PLS method, the R-squared evaluation can be seen for the endogenous variable of customer satisfaction and the endogenous variable of trust in the following Table 8 below.

Table 8 - R-Squared Evaluation

	R-Squared	Adjusted R-Squared
Safety Behaviour	0.766	0.758

Source: Processed data (2023)

Table 8 reveals that the Adjusted R-Squared value for the safety behavior is 0.758, indicating that the safety knowledge, safety motivation, and safety behavior could explain 75.8% of the safety behavior. The remaining 24.2% could be explained by other variables not included in this study.

4.1.4. Inner VIF Evaluation

A correlation among independent variables should not exist in a good regression model. The following Table 9 presents the results of inner VIF analysis.

Table 9 - Inner VIF Evaluation

	Safety Behaviour
Safety Climate	2.882
Safety Motivation	2.262

Safety Knowledge	3.095

Source: Processed data (2023)

Table 9 shows that all variables have a VIF value of less than 5.00. It indicated that there was no multicollinearity among the variables in this study. This was also demonstrated by the outer VIF value in the following Table 10.

Table 10 - Outer VIF Evaluation

	VIF
SB1	3.287
SB2	2.616
SB3	2.866
SB4	2.9
SB5	3.055
SB6	1.992
SC1	1.704
SC2	2.236
SC3	2.705
SC4	1.665
SC5	1.761
SC6	1.595
SK1	2.002
SK2	1.799
SK3	2.752
SK4	2.802
SK5	2.714
SK6	3.016
SM1	2.094
SM2	2.36
SM3	2.552
SM4	2.485
SM5	2.918
SM6	1.704

Source: Processed data (2023)

Based on Table 10, all indicators have a VIF value of less than 5.00 and are in the green category, indicating that there was no multicollinearity among the variables in this study.

4.1.5. Results of Hypothesis Testing

The hypotheses proposed must be measured for their significance. A hypothesis could be supported empirically if the t-statistics is > 1.65 (one tailed) and P-value is < 0.05, with a significance level of 95%. The following Table 11 presents the results of hypothesis testing.

Table 11 - Results of Hypothesis Testing

Hypothesis	Original Sample	T-Statistics	P-Value	Conclusion
H1: There is a positive influence of safety knowledge on safety behavior.	0.435	4.940	0.000	Supported
H2: There is a positive influence of safety motivation on safety behavior.	0.342	3.502	0.000	Supported
H3: There is a positive influence of safety climate on safety behavior.	0.184	2.394	0.009	Supported

Source: Processed data (2023)

Table 12 - Results of Direct Effect Test

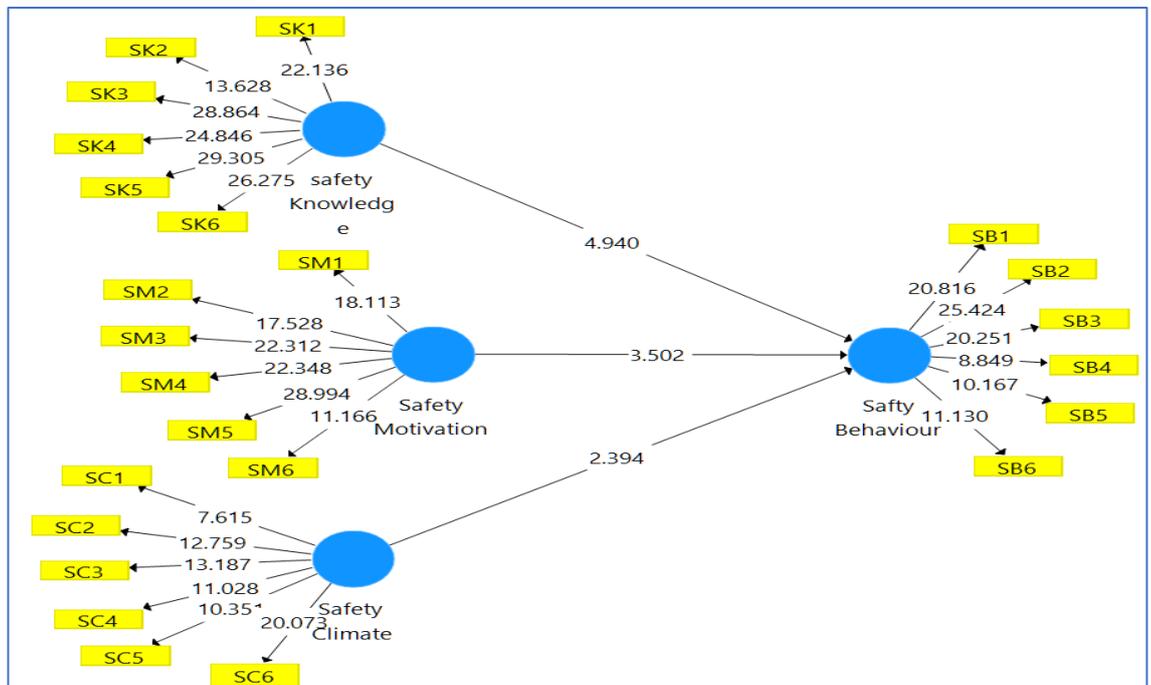|	Original Sample	Mean	St. Dev.	T-Statistics	P-Value
Safety Climate -> Safety Behaviour	0.184	0.194	0.077	2.394	0.009
Safety Motivation -> Safety Behaviour	0.342	0.332	0.098	3.502	0.000
Safety Knowledge -> Safety Behaviour	0.435	0.436	0.088	4.940	0.000

Inner Model

Figure 5 - Inner Model

Source: Processed data (2023)

4.2 Discussion

4.2.1   The medical staff' safety behavior influences the hospital tourism services

In Indonesia, the medical staff must carry out their duties in accordance with their profession. The Registration Certificate (Surat Tanda Registrasi (STR) and Practice Permit (Surat Ijin Praktek (SIP)) granted by each profession was a form of control and acknowledgment of their capacities or ability to carry out individually, according to the Director of RSUD Dr. Iskak Tulungagung, Dr. Supriyanto Dharmoredjo, Sp.B, M.Kes. Other related requirements concerning the primary duties and functions of medical staff were provided to each hospital where they operated in order to avoid violations of applicable laws and regulations. Quality Improvement and Patient Safety entailed a multidisciplinary approach with a structured performance framework to improve and control the service quality. Improving the service quality also entailed lowering or eliminating dangers to the patients and medical professionals. Hospital administration used the PDSA (Plan, Do, Study, and Act) cycle to assure the execution of quality improvement and patient safety programs.

The safety behavior of medical staff when giving services to hospital tourism patients had been shown to be one of the reasons why the patients returned for treatment or refer treatment to other tourists. The medical staff's safety behavior greatly benefited the hospital's patient care center (PCC) program. A low number of undesired events (Kejadian Tidak Diinginkan (KTD)), near misses (Kejadian Nyaris Celaka (KNC)), and effective RCA implementation were all part of the efforts to improve the service performance of hospitals providing the hospital tourism services.

International accreditation provided the hospitals with additional cash for achieving recognized for their service standards. The level of service professionalism and the safety value of service outcomes were absolute elements determining the hospitals' competitiveness with hospital tourism services. The hospital tourism services, particularly for the foreign patients, necessitated the medical staff with good credentials, good communication skills, foreign language skills, knowledge of applicable laws, knowledge of religion and culture, and knowledge of occupational risks. The medical staff's length of service, education, age, and work environment all had an impact on the degree of ability and success of the services they delivered, both individually and as a team.

4.2.2   Results of Hypothesis Testing

H1: There is a positive influence of safety knowledge on safety behavior

Table 11 and Table 12 shows that the t-statistic is 4.940, which is less than 1.96. This indicated that there is a positive direct influence of safety knowledge on safety behavior. The original sample size is 0.435, demonstrating that the safety education had a favorable impact on the safety behavior. The p-value is 0.000, indicating that the influence is significant because it is less than 0.05. This study was successful in demonstrating that the safety knowledge has a considerable positive influence on the safety behavior.

H2: There is a positive influence of safety motivation on safety behavior

Table 11 and Table 12 shows that its t-statistic is 3.502, showing that the safety motivation has a positive direct influence on the safety behavior, since it is less than t-value of 1.96. The original sample size is 0.342, demonstrating that the safety motivation has a favorable impact on the safety behavior. Furthermore, the p-value is 0.000, indicating that the impact is substantial because the p-value is less than 0.05. This study was successful in demonstrating that safety motivation has a considerable positive influence on the safety behavior.

H3: There is a positive influence of safety climate on safety behavior

Table 11 and Table 12 shows that it has a t-statistics of 2.394, revealing that the safety climate has a positive influence on the safety behavior because the t-statistic is bigger than the t-value of 1.96. The original sample is 0.184, demonstrating that the impact of safety climate on safety behavior is positive. The p-value is 0.009, indicating that the impact of safety climate on safety behavior is substantial because the p-value is less than 0.05. Therefore, the higher the level of the safety climate, the higher the level of safety behavior. This study was successful in demonstrating that safety atmosphere has a beneficial influence on the safety behavior.

5. Conclusions

This study confirms that the medical staff's safety knowledge, safety motivation and safety climate all influenced their safety behavior. The level of success of hospital tourism services was the consequences of teamwork between teams of specialists who complemented each other in their various professions.

Recommendations

This study has not measured the level nor impact of risks that the medical staff have on the medical tourism patients. Further researches are required to investigate the safety outcome of the medical tourism services for both the patients and medical staff.

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