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## **Analysis of Occupational Health and Safety (OHS) Culture Related to Occupational Health and Safety (OHS) Behavior at Syiah Kuala University Teaching Hospital, Banda Aceh**

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### **ABSTRACT**

Workplace accidents in hospitals became a serious concern given their impact on workers and the quality of services. National and regional Aceh data indicated that occupational safety and health (OSH) incidents still occur, often caused by suboptimal worker behavior towards safety. Although an OSH culture is believed to be crucial in preventing accidents and improving service quality, its implementation has not been fully effective in various healthcare facilities. This study analyzed OSH behavior and the factors that contributed to the formation of an OSH culture at the Teaching Hospital of Syiah Kuala University Banda Aceh, where initial observations indicated challenges related to the socialization and compliance with OHS procedures. A quantitative approach was employed using correlational and ex post facto methods on 100 medical and non-medical personnel. This research found that OSH behavior was significant in shaping the OSH culture, positively influenced by management commitment, regulations/SOPs, knowledge, and OSH communication, but not significantly by OSH training. Factors such as management commitment also influence regulations/SOPs and OSH communication, while training is correlated with OSH knowledge. Strengthening the OSH culture required a focus on improving worker behavior through more intensive OSH training, clear regulations, increased knowledge, and effective communication. Thus, cultivating an OSH culture has to become a primary priority and be integrated into every aspect of hospital operation.

### **KEYWORDS**

OSH Behavior, OSH Culture, OHS Procedures

## INTRODUCTION

Work accidents are certainly a big problem for the continuity of a business. Based on data from BPJS Ketenagakerjaan Indonesia, the number of work accident cases in 2015 was recorded at 110,285 cases, while in 2016 it decreased with the number of cases as many as 105,182 cases, and in 2017 there were 123,041 cases. In 2018, a total of 173,105 cases of work accidents occurred in Indonesia and throughout January to September 2019 there were 130,923 cases. And in 2020, from January to October, there were 177,161 cases of work accidents, 53 cases of work-related diseases, of which 11 were Covid-19 cases (Nengcy, et al., 2022).

Based on data from BPJS Ketenagakerjaan of Aceh Province quoted from the official website of the Aceh Secretariat Administration Bureau in 2018, it was noted that in 2015 there were 110,285 cases of work accidents, while in 2016 there were 105,182 cases or a decrease of 4.6 percent and in 2017 there were 80,392 cases. The Indonesian Ministry of Health (2018) added that the number of work accidents in Aceh Province throughout 2018 was 22,438 cases with a claim amount reaching IDR 89.75 billion.

The most frequent work accident data in Banda Aceh city hospitals are needle sticks, patients falling because the bed wheels cannot be locked, IV drips are pulled out, mistakes in writing prescriptions and administering drugs, and delays in supporting examinations. The diversity that occurs and the routine of these services if not managed properly can result in Unexpected Events (KTD) (Fadhila, et al., 2022). One of the causes of these work accidents is the suboptimal supervision and implementation of K3 and K3 behavior in the workplace (Luthfia, N., Aletta, A., & Amin, FA (2023). Furthermore, Nengcy, S., Lestari, Y., & Azkha, N. (2022). stated that work accidents in this hospital were caused by hospital activities that were labor-intensive, capital-intensive and technology-intensive.

Pratiwi stated that unsafe actions are actions that have the potential to threaten the safety of workers or others caused by things like not wearing personal protective equipment (PPE), not following SOPs, not being careful or careless (Rahma, I. et. all, 2022). This is reinforced by research conducted by Nur Asiah at RSUDZA Banda Aceh in 2020, where the implementation of SMK3 has not been fully implemented. There are several elements that have not been implemented properly or are even still in process

and have not been running. Some of the contributing factors are the lack of personnel in the K3 committee, lack of funds, and lack of support from management. The same results were also obtained from Farina's research (2021) conducted at Cut Nyak Dhien Hospital, Bireun, where the implementation of SMK3 has not been running optimally.

The government and employers have agreed to make K3 a part of the work culture in offices and factories in accordance with the decision of the Manaker Number Kep. 463 / MEN / 1993 concerning K3 culture. The implementation of K3 is the responsibility of all parties, all related parties are obliged to play an active role according to their functions and authorities to make various efforts in the field of K3 continuously, sustainably and make K3 a part of the work culture in every activity so that it can prevent cases of accidents and occupational diseases (Massa, TED, 2023).

Occupational Safety and Health in Hospitals (K3RS) needs to receive serious attention in an effort to protect against potential negative impacts caused by the health service process, as well as the existence of facilities, infrastructure, medicines and other logistics in the hospital environment so as not to cause work accidents, occupational diseases and emergencies including fires and disasters that impact hospital workers, patients, visitors and the surrounding community (Ministry of Health Regulation Number 1087 of 2010 concerning Occupational Health and Safety Standards in Hospitals).

The implementation of K3 culture in hospitals is one of the important components in the process of quality health services (Khoshakhlagh et al., 2019). A good safety culture has a positive influence on the quality, reliability, competence, and productivity of a hospital. Through a safety culture, health workers are aware of the risks in their work and preventive efforts for health workers and to create a safe environment for patients and health workers in the hospital environment. Therefore, the role of management is very important in creating a good safety culture.

Safety culture according to the Agency for Healthcare Research and Quality (AHRQ) can be measured from the perspective of hospital staff consisting of 10 dimensions including: teamwork, staffing and work speed, organizational learning for continuous improvement, response when errors occur, supervisors support patient safety, communication about errors, openness of communication, number of

error reports, hospital management supports patient safety, and job rotation and exchange of information (Fadhila, A., Rachmah, R., & Kamal, A., 2022).

Syiah Kuala University Teaching Hospital (RSP USK) is one of the hospitals in the Banda Aceh City area owned by Syiah Kuala University which is precisely located in the Kopelma Darussalam Banda Aceh area. RSP is an aid (grant) from Saudi Charity and the Islamic Development Bank (IDB) after the tsunami hit Banda Aceh in 2004. One of the missions created by RSP USK is to foster a culture that prioritizes health, safety and the environment in all actions.

Based on the results of the researcher's observations since the beginning of working at RSP USK, it was found that the socialization of occupational safety and health (K3) culture from health workers at RSP USK was still lacking. There are several obstacles related to safety culture such as the lack of worker awareness to implement and pay attention to SOP (Standard Operational Procedure) in carrying out an action or operating medical devices so that there is a risk of accidents.

The results of interviews with the K3 committee of RSP USK revealed that workers pay less attention to safety at work, workers feel uncomfortable using PPE because they feel it will slow down their work, and workers lack initiative to ask for new PPE if there is damage to personal protective equipment even though PPE is mandatory equipment that must be used when working which is useful for protecting workers from hazards and risks that occur in the work environment. These activities are the factors that cause work accidents. Based on the background described above, the author wants to see the extent of the implementation of K3 culture carried out at the Syiah Kuala University Teaching Hospital. This research has never been conducted at RSP USK so this research is considered important to be carried out in order to ensure the safety and security of health workers and their facilities and infrastructure and to prevent accidents.

## MATERIALS AND METHOD

The type of research used is descriptive research. correlational because it identifies the influence of a variable on another variable. The method used is ex post facto because the data is taken from events that have occurred so that researchers only explain data according to facts based on measurements on respondents. This research was conducted at the Syiah Kuala University Teaching Hospital. The population in this study were medical personnel and non-medical personnel totaling 100 people. The sample taken in this study was all medical personnel and non-medical personnel totaling 100 people. Researchers collected data on the problems to be studied using an instrument in the form of a questionnaire. The selection of SEM-PLS as a data analysis method is based on the characteristics of the research object, the assumptions underlying the model, and based on its advantages.

## RESULTS

Respondents in this study were medical personnel and non-medical personnel at the Syiah Kuala University Teaching Hospital totaling 100 people. In the tableThe following will describe the K3 Culture variable at Syiah Kuala University Teaching Hospital to measure the extent to which RSP USK Health workers implement health and safety in their work. From this definition, it was developed into seven statement items.

The following table will describe the variables of K3 Culture at Syiah Kuala University Teaching Hospital to measure the extent to which RSP USK Health workers implement health and safety in their work. From this definition, it was developed into seven statement items.

To get a general idea aboutThe K3 culture of respondents at the Syiah Kuala University Teaching Hospital will be described as seen inas follows

**Table 1. Frequency of Respondents' Responses to K3 Culture Variables**

No Item	Category	Amount	
		f	%

<b>P1</b>	Good	90	90.00%
	Not good	10	10.00%
<b>P2</b>	Good	75	75.00%
	Not good	25	25.00%
<b>P3</b>	Good	88	88.00%
	Not good	12	12.00%
<b>P4</b>	Good	85	85.00%
	Not good	15	15.00%
<b>P5</b>	Good	81	81.00%
	Not good	19	19.00%
<b>P6</b>	Good	85	85.00%
	Not good	15	15.00%
<b>P7</b>	Good	81	81.00%
	Not good	19	19.00%

Table 1. presents the frequency data of respondents' responses related to the OHS Culture variable at Syiah Kuala University Teaching Hospital, which aims to measure the extent to which health workers implement health and safety in their work through seven statement items (P1-P7). Data are presented in the categories "Good" and "Less Good" with their frequencies and percentages. In general, the analysis of this table shows that the OHS Culture among respondents is perceived at a good level, as seen from the high percentage of responses in the "Good" category for most items, with the highest figure reaching 90.00% in Item P1.

Although the overall picture is positive, there is still a percentage of respondents who fall into the "Less Good" category, ranging from 10.00% to 25.00%. Item P2 shows the highest percentage of "Less Good" (25.00%), followed by P5 and P7 (19.00% each). These figures indicate that the aspects of OHS culture represented by these items may require more attention to be improved, although in general, the data in this table confirms that the OHS Culture at RSP USK has been built quite well.

**Table 2. Frequency of Respondents' Responses to K3 Behavior Variables**

No Item	Category	Amount	
		f	%
<b>P1</b>	Good	90	90.00%
	Not good	10	10.00%

<b>P2</b>	Good	91	91.00%
	Not good	9	9.00%
<b>P3</b>	Good	93	93.00%
	Not good	7	7.00%
<b>P4</b>	Good	92	92.00%
	Not good	8	8.00%
<b>P5</b>	Good	88	88.00%
	Not good	12	12.00%
<b>P6</b>	Good	91	91.00%
	Not good	9	9.00%
<b>P7</b>	Good	86	86.00%
	Not good	14	14.00%
<b>P8</b>	Good	69	69.00%
	Not good	31	31.00%
<b>P9</b>	Good	79	79.00%
	Not good	21	21.00%

Table 2. presents the frequency data of respondents' responses related to the variable of Occupational Health and Safety Behavior, which aims to measure the attitude of health workers in applying occupational health and safety measures in the hospital environment. This table details the responses to nine statement items (P1-P9), categorizing them as "Good" or "Less Good", along with their frequencies and percentages. In general, the analysis of this data shows that Occupational Health and Safety Behavior among respondents is perceived as good, as seen from the dominance of the high percentage of responses in the "Good" category in most statement items.

Although the overall picture is positive with the majority of respondents demonstrating good OHS behavior, there is variation in responses between items. Item P8 showed the highest percentage of "Not Good" at 31.00%, making it the item with the lowest percentage of "Good" at 69.00%. This figure indicates that the OHS behavior aspect represented by Item P8 may be the area that needs the most attention or improvement efforts. However, overall, the data in the table confirms that the attitude of health workers at RSP USK in implementing OHS actions is mostly good.

**Table 3. Frequency of Respondents' Responses to the K3 Knowledge Variable**

No Item	Category	Amount
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		<b>f</b>	<b>%</b>
<b>P1</b>	Good	98	98.00%
	Not good	2	2.00%
<b>P2</b>	Good	98	98.00%
	Not good	2	2.00%
<b>P3</b>	Good	97	97.00%
	Not good	3	3.00%
<b>P4</b>	Good	98	98.00%
	Not good	2	2.00%
<b>P5</b>	Good	98	98.00%
	Not good	2	2.00%
<b>P6</b>	Good	97	97.00%
	Not good	3	3.00%
<b>P7</b>	Good	96	96.00%
	Not good	4	4.00%
<b>P8</b>	Good	94	94.00%
	Not good	6	6.00%

Table 3. displays the frequency data of respondents' responses regarding the variable of Occupational Safety and Health Knowledge at Syiah Kuala University Teaching Hospital, which is designed to measure the understanding of health workers about the importance of occupational safety and health. This table presents responses to eight statement items (P1-P8), categorizing them as "Good" or "Less Good", along with their frequencies and percentages. The analysis of this data as a whole shows a very high level of Occupational Safety and Health Knowledge among respondents, as evidenced by the percentage of responses in the "Good" category which is very dominant, reaching 94.00% to 98.00% across all items.

Although the general level of knowledge is very good, there is still a small percentage of respondents who fall into the "Poor" category in each item, ranging from 2.00% to 6.00%. Item P8 shows the highest percentage of "Poor" at 6.00%, making it the item with the lowest percentage of "Good" (94.00%). This may indicate that the aspect of OHS knowledge represented by Item P8 has slightly more room for improvement in understanding than the other items, although the difference is very small. Overall, these data confirm that health workers at RSP USK have a very strong foundation of OHS knowledge.

**Table 4. Frequency of Respondents' Responses to Management Commitment Variables**

No Item	Category	Amount	
		f	%
<b>P1</b>	Good	80	80.00%
	Not good	20	20.00%
<b>P2</b>	Good	85	85.00%
	Not good	15	15.00%
<b>P3</b>	Good	81	81.00%
	Not good	19	19.00%
<b>P4</b>	Good	63	63.00%
	Not good	37	37.00%
<b>P5</b>	Good	79	79.00%
	Not good	21	21.00%
<b>P6</b>	Good	80	80.00%
	Not good	20	20.00%
<b>P7</b>	Good	79	79.00%
	Not good	21	21.00%
<b>P8</b>	Good	82	82.00%
	Not good	18	18.00%
<b>P9</b>	Good	80	80.00%
	Not good	20	20.00%
<b>P10</b>	Good	85	85.00%
	Not good	15	15.00%

Table 4. presents the frequency data of respondents' responses related to the Management Commitment variable at Syiah Kuala University Teaching Hospital, which measures the consistency of leaders in decisions, communication, and K3 vision through ten statement items (P1-P10). The data are presented in the categories "Good" and "Less Good" along with their frequencies and percentages. The analysis of this data shows that Management Commitment related to K3 is generally perceived quite well by respondents, with the percentage of responses in the "Good" category ranging from 63.00% to 85.00% across all items.

Although most aspects of management commitment were assessed as good, there were significant variations, especially in Item P4 which showed the lowest percentage of "Good" at 63.00% and the highest percentage of "Poor" at 37.00%. This indicates that the aspect of Management Commitment represented by Item P4 is the most critical area and requires urgent attention and improvement. Other items show more positive perceptions, but the presence of the "Poor" percentage indicates that there is still room for strengthening the overall OHS management commitment.

**Table 5. Frequency of Respondents' Responses to Regulation/SOP Variables**

No Item	Category	Amount	
		f	%
<b>P1</b>	Good	92	92.00%
	Not good	8	8.00%
<b>P2</b>	Good	89	89.00%
	Not good	11	11.00%
<b>P3</b>	Good	83	83.00%
	Not good	17	17.00%
<b>P4</b>	Good	83	83.00%
	Not good	17	17.00%
<b>P5</b>	Good	76	76.00%
	Not good	24	24.00%
<b>P6</b>	Good	76	76.00%
	Not good	24	24.00%
<b>P7</b>	Good	87	87.00%
	Not good	13	13.00%
<b>P8</b>	Good	82	82.00%
	Not good	18	18.00%
<b>P9</b>	Good	77	77.00%
	Not good	23	23.00%

Table 5. displays the frequency data of respondents' responses related to the variable of K3 Regulations/SOPs. This table aims to measure the effectiveness of written guidelines in encouraging the implementation of K3 through nine statement items (P1-P9). Data are presented in the categories of "Good" and "Less Good" along with

their frequencies and percentages. In general, the analysis of this table shows that K3 Regulations/SOPs among respondents are perceived quite well, as seen from the high percentage of responses in the "Good" category in most items, ranging from 76.00% to 92.00%.

Although the majority of respondents rated the OHS Regulation/SOP as good, there were several items that showed a higher percentage of "Not Good". Items P5 and P6 had the highest percentage of "Not Good" at 24.00%, followed by P9 at 23.00%. These figures indicate that the aspects of the OHS Regulation/SOP represented by these items have more room for improvement or socialization to increase understanding and compliance. However, overall, the data in this table indicates that written guidelines related to OHS have functioned quite well

**Table 6. Frequency of Respondents' Responses to K3 Communication Variables**

No Item	Category	Amount	
		f	%
<b>P1</b>	Good	80	80.00%
	Not good	20	20.00%
<b>P2</b>	Good	83	83.00%
	Not good	17	17.00%
<b>P3</b>	Good	71	71.00%
	Not good	29	29.00%
<b>P4</b>	Good	73	73.00%
	Not good	27	27.00%
<b>P5</b>	Good	76	76.00%
	Not good	24	24.00%
<b>P6</b>	Good	71	71.00%
	Not good	29	29.00%
<b>P7</b>	Good	69	69.00%
	Not good	31	31.00%
<b>P8</b>	Good	73	73.00%
	Not good	27	27.00%
<b>P9</b>	Good	72	72.00%
	Not good	28	28.00%

Table 6. displays the frequency data of respondents' responses related to the OHS Communication variable. This variable is designed to measure the extent to which communication media facilitate effective interaction between various elements (people, jobs, processes, systems) to achieve OHS goals, measured through nine statement items (P1-P9). Data are presented in the categories "Good" and "Less Good" along with their frequencies and percentages. Based on this table, respondents' perceptions of OHS Communication show quite diverse levels, with the percentage of the "Good" category ranging from 69.00% to 83.00%.

Further analysis shows that there are several items with a significant percentage of "Poor", the highest in Item P7 at 31.00%, followed by Items P3 and P6 at 29.00% each. These figures indicate that the aspects of OHS communication represented by these items still need serious attention and improvement to improve the effectiveness of OHS-related interactions. Although some items (such as P2 with 83.00% Good) indicate a more positive perception, the high percentage of "Poor" in other items implies that OHS Communication is an area that needs to be strengthened in order to function optimally in supporting OHS objectives.

**Table 7. Frequency of Respondents' Responses to K3 Training Variables**

No Item	Category	Amount	
		f	%
<b>P1</b>	Good	82	82.00%
	Not good	18	18.00%
<b>P2</b>	Good	81	81.00%
	Not good	19	19.00%
<b>P3</b>	Good	76	76.00%
	Not good	24	24.00%
<b>P4</b>	Good	76	76.00%
	Not good	24	24.00%
<b>P5</b>	Good	75	75.00%
	Not good	25	25.00%
<b>P6</b>	Good	77	77.00%
	Not good	23	23.00%
<b>P7</b>	Good	55	55.00%
	Not good	45	45.00%
<b>P8</b>	Good	84	84.00%
	Not good	16	16.00%
<b>P9</b>	Good	77	77.00%

Not good	23	23.00%
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Table 7. presents the frequency data of respondents' responses related to the K3 Training variable. This variable aims to measure the effectiveness of various activities designed to improve the skills, knowledge, experience, or attitudes of health workers towards K3, measured through nine statement items (P1-P9). Data are presented in the categories "Good" and "Less Good" along with their frequencies and percentages. Based on this table, respondents' perceptions of K3 Training show quite significant diversity, with the percentage of the "Good" category ranging widely between 55.00% and 84.00%.

Further analysis shows that there are several items with a fairly high percentage of "Poor", indicating areas that require substantial improvement. Item P7 has the lowest percentage of "Good", only 55.00%, and consequently the highest percentage of "Poor" at 45.00%. This indicates that the aspect of OHS training represented by Item P7 is the most critical area that is perceived as inadequate by almost half of the respondents. Other items such as P3, P4, P5, P6, and P9 also show a fairly high percentage of "Poor" (between 23.00% and 25.00%). Although Items P1, P2, and P8 show a higher percentage of "Good" (between 81.00% and 84.00%), the high percentage of "Poor" in other items underlines that the effectiveness of OHS training as a whole still has significant room for improvement.

**Table 8. R-Square Value**

	R-square	R-square adjusted
<b>K3 Culture</b>	0.286	0.279
<b>K3 Communication</b>	0.716	0.713
<b>K3 Knowledge</b>	0.397	0.390
<b>Regulations/SOP</b>	0.548	0.543
<b>K3 Behavior</b>	0.601	0.580

Based on the results of data processing in the table above, it shows that the K3 Culture variable has an R-square value of 0.286 with a percentage of 11.44%. The K3 Communication variable has an R-square value of 0.716 with a percentage of 28.64%. The K3 Knowledge variable has an R-square value of 0.397 with a percentage of 15.88%. The K3 Regulation/SOP variable has an R-square value of 0.548 with a percentage of 21.92%. And finally the K3 Behavior variable has an R-square value of 0.601 with a percentage of 24.04%. From these results, it can be concluded that the results of the structural model test (inner model) of the K3 Communication, K3 Behavior, Regulation/SOP variables, are included in the "moderate" model category. While the results of the structural model test (inner model) of the K3 Culture and K3 Knowledge variables are included in the "Weak" model category.

**DISCUSSION**

**The Relationship between K3 Behavior and K3 Culture at Syiah Kuala University Teaching Hospital, Banda Aceh**

The results of the path analysis show that Occupational Safety and Health (OHS) Behavior has a positive and significant influence on the OHS Culture at Syiah Kuala University Teaching Hospital (RSP USK). The path coefficient of 0.535 indicates that any increase in the implementation of OHS behavior

among hospital staff is correlated with a substantial increase in the overall strength of the OHS culture. The statistical significance of this relationship is confirmed by the very high t-statistic value of 6.443, which far exceeds the critical threshold of the t-table of 2.0025 at the 95% confidence level. The p-value approaching zero (0.000) further strengthens the belief that this relationship is not the result of mere coincidence, but rather reflects a real and strong link between individual actions related to OHS and the safety values and norms that apply in the organization.

It is important to understand that OHS behavior is something that needs to be done as an effort to prevent accidents in the work environment (Simbolon, et al, 2024). A positive attitude towards OHS encourages individuals to actively engage in safe practices, comply with established procedures, and take the initiative to identify and reduce potential risks. As found by Rahayu's research (2015), a good attitude is an important predictor of OHS culture management actions. Awareness of potential hazards and personal commitment to preventing incidents are the main pillars of positive OHS behavior.

In the context of hospital operations, where health and safety risks are very high, good OHS behavior from each staff member is crucial in creating a safe working environment for themselves, their colleagues, and most importantly for patients. Concrete examples of positive OHS behavior include adherence to strict hygiene and sanitation protocols, proper and consistent use of PPE, reporting incidents or potential hazards without hesitation, and actively participating in OHS training and socialization. When these behaviors become habits and are widely implemented, they collectively contribute to the formation of a strong OHS culture.

In the book entitled *Lee's Process Safety Essential* by Sam Mannan (2013), explains that K3 Culture can be a product of values in individuals and groups, attitudes, perceptions, competencies and behavioral patterns that determine the commitment to do something, as well as the style and proficiency of occupational safety and health management. This culture creates social norms where safety is valued, discussed openly, and becomes a shared responsibility. Staff feel more empowered to voice concerns about safety and collaborate in finding solutions. As a result, the

potential for medical errors, work accidents, and the spread of nosocomial infections can be minimized. In addition, a positive K3 culture can also improve staff job satisfaction and the image of the hospital in the eyes of patients and the community.

Furthermore, the positive influence of Occupational Safety and Health (OHS) behavior on the formation of a strong OHS culture is a reciprocal cycle. Individuals who consistently internalize and practice good OHS behavior contribute significantly to strengthening safety norms in the work environment (Smith & Jones, 2018). These established norms further motivate other staff members to adopt similar behaviors, resulting in a positive domino effect that increases awareness and compliance with OHS principles collectively. Therefore, investment in improving OHS behavior at the individual level is a fundamental strategy in building the foundation of a resilient and sustainable safety culture at the Syiah Kuala University General Hospital (RSP USK).

The implications of these findings confirm that individual OHS behavior plays a central role in the architecture of a solid safety culture at RSP USK (Chen et al., 2022). Sustained and structured efforts to raise awareness, foster positive attitudes, and promote proper OHS practices among all staff will make a substantial contribution to creating a safer, healthier work environment, and ultimately improving the quality of patient care.

### **Relationship between Hospital Management Commitment and K3 Behavior at Syiah Kuala University Teaching Hospital, Banda Aceh**

The results of the hypothesis testing indicate that Hospital Management Commitment has a negative and significant influence on Occupational Safety and Health (OHS) Behavior at Syiah Kuala University Teaching Hospital (RSP USK). The path coefficient of -0.554 indicates that an increase in management commitment to OHS is actually correlated with a decrease in OHS behavior among staff. The significance of this influence is supported by a t-statistic value of 3.864, which is greater than the t-table value of 2.0025 at a 95% confidence level, and a p-value of 0.000 which is very small ( $p < 0.05$ ).

This finding is contrary to expectations and general theory stating that strong management commitment

will encourage positive OHS behavior. The theory proposed by Yule et al., (2007) does emphasize that high management commitment to occupational safety and health should reduce the number of occupational accidents. The role of management in providing the resources needed to control the risk of occupational accidents is considered fundamental.

Management commitment is often seen as the spearhead of successful implementation of the OHS management system. The core of the OHS program is the commitment of all levels of the organization, especially from top management. Management with a strong commitment will strive to create an effective OHS system through various means, in accordance with established policies (Noviandini et al., 2017). Aspects of management commitment include active involvement of leaders, the existence of clear written OHS policies that are socialized, and adequate resource allocation for the OHS program.

Concrete forms of leadership involvement include allocating sufficient resources, establishing and communicating written OHS policies, and conducting OHS and emergency response training. These actions are expected to motivate workers to prioritize OHS aspects in carrying out their duties. Previous research (Pratiwi et al., 2016) also shows that good management commitment can correlate with a decrease in work accidents.

Leader Commitment Commitment from organizational leaders is a crucial aspect in change management. Leaders must demonstrate their dedication to change by setting a good example and actively communicating the importance of change initiatives to all members of the organization (Putri, et al. 2024). Commitment to safety begins with a clear statement of OHS policy and is demonstrated through words and actions. Effective communication between leaders and workers regarding OHS policies consistently across multiple occasions is also considered important (Heni, 2011). This communication aims to reduce the power distance that is believed to hinder the success of an OHS program.

However, the results of this study indicate a significant negative relationship between management commitment and OHS behavior at RSP USK. Although

theoretically strong management commitment is expected to trigger positive OHS behavior (Yule et al., 2007), the implementation context at RSP USK may present different dynamics. Several studies have shown that excessive or perceived management focus on OHS aspects, without being balanced by a deep understanding of the staff's daily operational challenges, can actually have undesirable impacts on OHS behavior.

For example, strong pressure from management to comply with OHS procedures without providing adequate resources or training can cause staff to feel burdened and less motivated to internalize OHS practices. In addition, if staff feel that management commitment is only a formality or not supported by real actions on the ground, this can reduce their trust and involvement in the OHS program.

Furthermore, when workers do not have a clear understanding of what is expected of them or if their roles and responsibilities are not well defined, this can lead to confusion, anxiety, and stress (Sarie et al, 2023). So that in the end they will be less motivated to adopt the expected K3 behavior, even though management has shown formal commitment.

### **Relationship of Hospital Regulations/SOPs to K3 Behavior at Syiah Kuala University Teaching Hospital, Banda Aceh**

The results of the hypothesis test indicate that Hospital Regulations/Standard Operating Procedures (SOP) have a positive and significant influence on Occupational Safety and Health (OHS) Behavior at Syiah Kuala University Teaching Hospital (RSP USK). The path coefficient of 0.391 indicates that the better and more effective the implementation of OHS regulations and SOPs in the hospital, the more positive the OHS behavior shown by the staff. The significance of this influence is supported by the t-statistic value of 3.536, which is greater than the t-table value of 2.0025 at a 95% confidence level, and the p-value of 0.000 which is very small ( $p < 0.05$ ).

These findings confirm that the existence of clear, comprehensive, and well-implemented SOPs is an important foundation in forming positive OHS behavior in the hospital environment. The influence of regulations and SOPs on OHS behavior can be explained through several mechanisms. From the

cognitive aspect, SOPs provide clear guidance on safe actions and correct procedures in various work situations, thereby increasing staff knowledge on how to avoid risks. From the affective aspect, effective socialization of SOPs can raise awareness of the importance of OHS and build a positive attitude towards compliance. Finally, from the psychomotor aspect, routine implementation of SOPs and adequate training help form safe work habits and reduce risky actions.

This finding is in line with previous research (Setryaningsih et al., 2019) which showed a significant relationship between compliance with SOP implementation and the level of work accidents. The study found that the lower the level of employee compliance with SOPs, the higher the risk of work accidents, and vice versa. This is due to a lack of awareness of potential hazards and risks, as well as the tendency of workers to underestimate the risks that may arise due to non-compliance with SOPs.

At RSP USK, efforts to ensure the implementation of OHS culture through regulations and SOPs have been carried out through comprehensive socialization to all employees, especially new employees through an orientation program in collaboration with the hospital's education and training department. In addition, periodic monthly refresher courses on OHS SOPs are also carried out for existing employees. Document analysis also shows the availability of various regulations and SOPs related to OHS at RSP USK, including: emergency response implementation documents, hospital environmental sanitation management (risk factor and waste management), technical instructions for accident prevention and disaster management, SOP for lifting and transporting patients, SOP for handling Hazardous and Toxic Materials (B3), and SOP for work and equipment in each work unit.

The existence of complete SOP documents and structured socialization efforts are important capital for RSP USK in building positive K3 behavior. However, the effectiveness of the influence of regulations and SOPs does not only depend on the availability and socialization, but also on the level of understanding, internalization, and compliance of staff with the SOP. Implementation of Regulations/SOPs in accordance with the Regulation

of the Minister of Health on Hospital Occupational Safety and Health is part of the government's efforts aimed at all related parties so that all Hospitals can organize K3RS effectively, efficiently, and sustainably. With the stipulation of this Regulation of the Minister of Health, it is expected to be able to control the risks of Hospital Occupational Safety and Health (Minister of Health of the Republic of Indonesia, 2016).

Thus, the results of this study confirm the crucial role of regulations and SOPs in shaping positive OHS behavior at RSP USK. Continuous efforts to ensure comprehensive SOPs, effective socialization, consistent implementation, and a strong culture of compliance will further improve occupational safety and health in the hospital environment.

### **The Relationship between K3 Knowledge and K3 Behavior at Syiah Kuala University Teaching Hospital, Banda Aceh**

The results of the hypothesis testing indicate that Occupational Safety and Health (OHS) Knowledge has a positive and significant influence on OHS Behavior at Syiah Kuala University Teaching Hospital (RSP USK). The path coefficient of 0.351 indicates that the higher the level of staff knowledge about OHS, the more positive the OHS behavior they show in daily work practices. The significance of this influence is supported by a t-statistic value of 3.690, which is greater than the t-table value of 2.0025 at a 95% confidence level, and a p-value of 0.000 which is very small ( $p < 0.05$ ).

These findings confirm that knowledge is an important foundation underlying safe and effective OHS practices. Staff who have a good understanding of OHS principles, potential hazards in the work environment, and correct preventive procedures will be better able to identify risks, take appropriate preventive actions, and avoid behaviors that can endanger themselves, coworkers, or patients.

One of the important implications of good K3 knowledge is its potential to reduce the risk of nosocomial infections, namely infections acquired during hospitalization (Ibrahim. With a deep understanding of proper infection prevention practices, such as proper hand washing techniques, use of appropriate Personal Protective Equipment (PPE), effective sterilization and disinfection of

medical equipment, and the application of strict environmental hygiene principles, the spread of infectious microorganisms can be minimized. This directly contributes to improving the safety of patients, staff, and hospital visitors. Good knowledge of awareness of safe practices can be an added motivational value for medical personnel in increasing awareness to do positive things, especially in applying the skills they have (Marfu'ah and Sofiana, 2018).

In line with these findings, research by Lahimade and Langi (2023) also emphasized that adequate K3 knowledge plays an important role in protecting the health and safety of workers. Through comprehensive training, staff can understand the correct way to use PPE, emergency evacuation procedures, handling hazardous chemicals, and other risk prevention measures related to the unique hospital work environment. Thus, the risk of injury or illness due to exposure to hazards in the workplace can be significantly reduced.

Furthermore, good knowledge of OHS also contributes to increasing operational efficiency in hospitals. When staff understand the necessary preventive measures, they can work more confidently, efficiently, and productively without having to face disruptions due to safety incidents or work-related health problems. In addition, effective infection prevention can also reduce staff absenteeism due to illness and reduce medical costs associated with nosocomial infections (Anggeraeni, 2023)

Overall, the high level of OHS knowledge among RSP USK staff not only improves safety and health, but also has the potential to improve the quality of service and the hospital's reputation. Hospitals with a good track record in OHS prevention tend to gain greater trust from patients and the public. Patients will feel safer and more comfortable receiving care at health facilities that demonstrate a strong commitment to safety. This can ultimately strengthen the hospital's positive image and increase its competitiveness in the health care industry.

Thus, the results of this study underline the importance of investing in improving OHS knowledge among RSP USK staff as a fundamental effort to create

a safer, healthier work environment and improve overall service quality.

### **The Relationship between K3 Training and K3 Behavior at the Syiah Kuala University Teaching Hospital, Banda Aceh**

The results of the hypothesis testing indicate that Occupational Safety and Health (K3) Training does not have a significant effect on K3 Behavior at Syiah Kuala University Teaching Hospital (RSP USK). The path coefficient of 0.088 with a t-statistic value of 0.983 which is smaller than the t-table of 2.0025 and a p-value of 0.326 which is greater than 0.05 indicates that there is no strong statistical evidence to conclude that K3 training directly affects K3 behavior at RSP USK in this study.

This finding is contrary to the research conducted by Silviani et al. (2022) which found a positive and significant influence between OHS training and work safety behavior. Theoretically, OHS training should equip employees with knowledge, skills, and in-depth understanding of risks and hazards in the workplace and their preventive measures (Malik, 2020). With a better understanding, employees are expected to be more aware of potential risks, avoid dangerous behaviors, and adopt safer actions. OHS training is also believed to play a role in forming a proactive attitude towards safety (Sandona & Permadani, 2021), encouraging employees to take the initiative in reducing risks and actively participating in safety efforts.

RSP USK itself has made various efforts to control work accidents through internal training for all personnel, training on the use of PPE, training and trials of fire emergency response teams, training on the management of Hazardous and Toxic Materials (B3), training on the management and maintenance of hospital facilities and infrastructure, as well as training related to machine guarding and others. In addition, the training forum is also used as a forum for exchanging information on OHS issues in the work environment, and periodic environmental inspections are carried out by the OHS Committee to identify behavior or conditions that are not in accordance with OHS regulations.

### **The Relationship between K3 Communication and K3 Behavior at the Syiah Kuala University Teaching Hospital, Banda Aceh**

The results of the hypothesis test indicate that Occupational Safety and Health (OHS) Communication has a positive and significant influence on OHS Behavior at Syiah Kuala University Teaching Hospital (RSP USK). The path coefficient of 0.550 indicates that the more effective and intensive the communication related to OHS in the hospital environment, the more positive the OHS behavior shown by the staff. The significance of this influence is supported by the t-statistic value of 3.390, which is greater than the t-table value of 2.0025 at a 95% confidence level, and the p-value of 0.001 which is very small ( $p < 0.05$ ).

This finding underlines the crucial role of communication as a means of conveying information, establishing understanding, and internalizing OHS values among hospital staff. As stated by Ramli (2010), OHS communication can be in the form of oral or written forms and includes various media that are relevant to occupational safety and health interests. Effective OHS communication media, such as clear safety signs, informative safety posters and banners, routine appeals, and easy-to-understand work safety procedures (Lestari, 2014), serve to convey information about potential hazards and necessary preventive measures.

The more diverse and intensive the OHS communication media provided, the more likely the information is received and processed by staff, which ultimately contributes to the formation of safe behavior. Dhasa (2011) in the Workplace Safety and Health for Marine Industries guidelines also highlights the various types of OHS communication media that companies can use, including safety promotion, small group meetings, safety information, various forms of consultation and communication, and emergency response procedures.

The availability of OHS communication media that provides important information at RSP USK seems to have a positive impact on staff OHS behavior. OHS communication media plays a role in providing the knowledge needed by employees to form good work behavior and culture. In line with Azwar's theory (2013), mass media, both electronic and print, have a

significant influence on the formation of a person's opinions and beliefs. The delivery of information through the media is expected to provide a new cognitive foundation which in turn forms attitudes. Therefore, efforts to maintain and even improve the implementation of OHS communication media at RSP USK are very important to continue to provide knowledge and foster positive attitudes towards OHS.

Furthermore, Azwar (2013) also stated that mass media is one of the important factors in forming attitudes. Mass media has the main task of conveying information, and the messages conveyed often contain suggestions that can direct opinions. Strong messages and suggestions from K3 information can provide an affective basis in assessing the importance of safety, thus forming a certain attitude direction (Sjuchro, 201). This is in line with the results of research at RSP USK which shows a strong influence between K3 communication media and the formation of positive attitudes in employees. This positive attitude then becomes a driver for better K3 behavior.

Thus, the results of this study confirm that effective OHS communication is an important element in encouraging positive OHS behavior at RSP USK. Continuous efforts to improve the quality, variety, and involvement in OHS communication will contribute significantly to the creation of a safer work environment and a strong OHS culture.

### **Relationship of Management Commitment to Regulations/SOPs at Syiah Kuala University Teaching Hospital, Banda Aceh**

The results of the hypothesis testing indicate that Hospital Management Commitment has a positive and significant influence on the Regulations/Standard Operating Procedures (SOP) at Syiah Kuala University Teaching Hospital (RSP USK). The path coefficient of 0.740 indicates that the higher the level of management commitment to K3, the better the quality and implementation of K3 regulations/SOPs in the hospital. The significance of this influence is supported by the t-statistic value of 12.432, which is much greater than the t-table value of 2.0025 at a 95% confidence level, and the p-value of 0.000 which is very small ( $p < 0.05$ ).

This finding confirms that strong commitment from management is the main driver in the development

and implementation of effective OHS regulations/SOPs in the hospital environment. The existence of the OHS organization, namely the OHS Committee at RSP USK, which was formed in accordance with the Decree of the Minister of Health No. 432 of 2007, is a real manifestation of management's commitment to OHS. The formation of this committee indicates the existence of a formal structure that is responsible for formulating, supervising, and evaluating OHS programs, including the development of regulations and SOPs.

The efforts to socialize K3 to all RSP USK employees also reflect the management's commitment to ensuring that K3 regulations and SOPs are understood and internalized by all staff. The presence of special personnel with K3 qualifications who supervise activities in each work unit further strengthens the implementation of K3 in the field. In addition to verbal communication through routine safety briefings, RSP USK also uses non-verbal communication through the installation of safety signs in potentially hazardous areas, which shows management's attention to the prevention aspect.

The determination of written policies from the Director of RSP USK becomes a formal basis for the formation of the K3RS organization and the implementation of K3 programs. The involvement of the K3RS organization in strategic meetings and the preparation of the K3RS budget shows that K3 is not only a concern for the Hospital Facilities Maintenance Installation (IPSR), but is also integrated into decision-making at a higher level. This is in line with research which states that commitment from top management will encourage the creation of a K3 behavioral culture in employees (Subhan & Widodo, 2018). The existence of a written commitment that is socialized to all employees is a form of real support from the highest leadership of the hospital for K3.

Thus, the results of this study confirm that strong management commitment is a solid foundation for the development and implementation of effective OHS regulations/SOPs at RSP USK. Continuous efforts to strengthen this commitment and translate it into real actions will further improve the quality of the OHS management system in the hospital.

### **The Relationship Between K3 Training and K3 Knowledge at Syiah Kuala University Teaching Hospital, Banda Aceh**

The results of the hypothesis test show that Occupational Safety and Health (K3) Training has a positive and significant influence on K3 Knowledge at Syiah Kuala University Teaching Hospital (RSP USK). The path coefficient of 0.630 indicates that the more intensive and quality the K3 training attended by hospital staff, the higher their level of knowledge about K3. The significance of this influence is supported by the t-statistic value of 13.909, which is much greater than the t-table value of 2.0025 at a 95% confidence level, and the p-value of 0.000 which is very small ( $p < 0.05$ ).

This finding confirms that K3 training is an effective means of increasing hospital staff knowledge of workplace risks and hazards and the necessary preventive measures (Malik, 2020). This increase in knowledge is an important foundation for being able to manage potential risks and have good organizational governance ((Suyitno, 2022), which in turn will encourage staff to avoid dangerous behaviors and take safer actions.

RSP USK itself has demonstrated its commitment in managing staff training related to K3, in accordance with the Hospital K3 Implementation Guidelines in the Ministry of Health of the Republic of Indonesia in 2010. The purpose of this effort is to improve the knowledge of hospital staff to avoid Occupational Diseases (PAK) and Disabled Work Accidents (KKC). Evidence of this commitment is the existence of an annual work program document for 2020 related to staff development through K3 training, which is also supported by budget allocation from RSP USK management. Various training activities have been carried out, including training on working according to the SOP of each work unit, training on the use of Light Fire Extinguishers (APAR), and various other in-house training.

The results of this study are in line with various previous studies that show a positive and significant influence between OHS training and OHS knowledge (or occupational safety behavior that is highly influenced by knowledge). Research conducted by Silviani et al. (2022) specifically shows that increasing

the intensity and quality of OHS training is positively correlated with increasing occupational safety behavior. Furthermore, OHS training also plays a role in forming proactive attitudes and behaviors towards safety (Sandona & Permadani, 2021). Hospital staff who have received effective OHS training tend to be more proactive in reducing risks and actively participate in safety efforts in the work environment. This finding is also supported by research from Sandona & Permadani (2021), Alfidyani et al. (2020), and Arianto et al. (2022).

The implication of this finding is that investment in quality and sustainable OHS training programs is a strategic step for RSP USK to improve the level of OHS knowledge among staff. This increase in knowledge is expected to be a strong foundation for positive OHS behavior changes in the future.

Thus, the results of this study confirm that OHS training is a valuable investment in improving OHS knowledge at RSP USK. Continuous efforts to design and implement effective and relevant training programs will contribute significantly to creating more competent staff who are aware of the importance of occupational safety and health.

### **Relationship of Hospital Management Commitment to K3 Communication at Syiah Kuala University Teaching Hospital, Banda Aceh**

The results of the hypothesis testing indicate that Hospital Management Commitment has a positive and significant influence on Hospital Occupational Safety and Health Communication (K3RS) at Syiah Kuala University Teaching Hospital (RSP USK). The path coefficient of 0.846 indicates that the higher the level of management commitment to K3RS, the more effective and extensive the K3RS communication implemented in the hospital environment. The significance of this influence is supported by a very high t-statistic value, which is 34,660, which far exceeds the t-table value of 2.0025 at a 95% confidence level, as well as a p-value of 0.000 which is very small ( $p < 0.05$ ).

This finding confirms that strong commitment from management is the main foundation for creating a positive and conducive OSH culture for effective OSH communication. When management shows a high commitment to occupational safety and health, this

will encourage the establishment of a broader OSH communication system and mechanism that reaches all elements of the hospital, including employees, patients, and visitors. This effective communication is key to understanding OSH risks, procedures, and policies by all related parties.

The results of this study are in line with the findings of Ivana et al. (2014) who emphasized that commitment to K3RS must start from the highest leadership of the hospital (top management). This commitment is manifested in various forms of communication, including written policies that are clear, easy to understand, and known to all hospital employees. At RSP USK, the initial commitment to K3RS has been expressed verbally and is in the process of being realized in the form of a written policy. The K3RS policy is planned to be created and socialized along with the formation of the K3RS organizational structure, which is also reflected in the provision of visual communication media such as K3 posters and safety signs.

Thus, the results of this study confirm that management commitment is the main driver for the creation of effective K3RS communication at RSP USK. Continuous efforts to strengthen this commitment and translate it into a comprehensive communication strategy will contribute significantly to increasing awareness, understanding, and participation of all elements of the hospital in realizing a superior K3RS culture.

### **CONCLUSION**

Based on the results of the analysis and discussion that has been done, it was concluded that the hypotheses that have been tested are 9 hypotheses, where eight of them are accepted and one is rejected. The following are the results of the hypothesis testing of each construct as follows:

1. OHS behavior has a positive and significant influence on OHS Culture. The better the OHS behavior implemented by the staff, the stronger the OHS culture in the hospital.
2. Hospital Management Commitment has a negative and significant influence on OHS Behavior. This finding shows that increasing management commitment is actually correlated with decreasing OHS behavior, indicating the existence

of implementation dynamics that need to be further evaluated.

3. Hospital Regulations/SOPs have a positive and significant influence on OHS Behavior. Good implementation of OHS regulations and SOPs contributes positively to the formation of safe OHS behavior among staff.
4. OHS knowledge has a positive and significant influence on OHS behavior. High levels of OHS knowledge among staff are correlated with more positive OHS behavior.
5. OHS training has no significant effect on OHS behavior. Although training has been conducted, this study did not find strong statistical evidence that OHS training directly affects staff OHS behavior.
6. OHS communication has a positive and significant influence on OHS behavior. The more effective and intensive the communication related to OHS, the more positive the OHS behavior shown by the staff.
7. Hospital Management Commitment has a positive and significant influence on Hospital Regulations/SOPs. Strong management commitment encourages the development and implementation of better K3 regulations/SOPs.
8. K3 training has a positive and significant influence on K3 Knowledge. K3 training has been proven effective in improving the level of K3 knowledge of hospital staff.
9. Hospital Management Commitment has a positive and significant influence on Hospital OHS Communication. High management commitment facilitates more effective and extensive OHS communication throughout the hospital environment.

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