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## **ASSESSMENT OF THE EFFECTIVENESS OF SAFETY TRAINING FOR WORKERS IN SELECTED HEALTHCARE FACILITIES IN RIVERS STATE**

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### **Abstract**

This paper examined the effectiveness of safety training programs among healthcare workers in Rivers State, with a particular focus on training delivery methods, organizational support, knowledge retention, compliance with safety protocols, and implementation barriers. Using a cross-sectional survey design, a sample of 185 data were collected from healthcare employees across multiple facilities through structured questionnaires. Analysis was conducted using descriptive statistics (Weighted Mean (WM)), ANOVA, and regression analysis to examine the relationships between training methods, organizational support, time, and workers' safety knowledge and behaviour. The results of the descriptive statistics revealed that; safety training delivery methods in the healthcare centres are effective in equipping healthcare workers with practical safety knowledge and skills ( $WM = 3.38 > 3.00$ ), there is high level of retention of safety knowledge, compliance and practice over time in the healthcare centres ( $WM=3.43>3.00$ ) and organizational policies and support systems plays crucial role in enhancing the outcomes of safety training programs ( $WM=3.43>3.00$ ). The ANOVA results revealed that using different safety training method will not significantly improve workers' safety knowledge or behaviour ( $F=0.654, p=0.391>0.05$ ) and knowledge retention and compliance declined significantly over time ( $F = 19.772, p = 0.000$ ) while regression analysis showed that organizational support has a statistically significant influence on the success of safety training programs ( $B=0.388, P<0.0001$ ). In conclusion, achieving long-term improvements in healthcare safety requires a holistic approach that integrates strong leadership, inclusive policies, systematic training, regular refreshers, and a supportive organizational culture.

### **Keywords:**

*Safety Training Healthcare Facilities, Rivers State.*

### **1.0 Introduction**

The healthcare sector is one of the most critical industries, requiring a high level of safety and risk management to protect both workers and patients. Safety training programs are essential for healthcare workers to prevent occupational hazards, injuries, and illnesses. (Lizak &

Etemova, 2023). The inefficiencies are usually caused by differences in training quality, inadequate results tracking, lack of reinforcement of safety precautions and failure to adjust to hazards unique to the work place. According to international labour organization reports (ILO, 2020) Occupational safety and health are vital components of decent work. Physical conditions and mental demands of the workplace determine to a great extent workers' condition (Kasimu et al., 2023).

According to the International Labour Organization (ILO, 2019), an estimated 2.78 million workers die each year from occupational accidents and work-related diseases globally. The breaks down include 2.4 million deaths were due to work-related diseases, 360,000 deaths due to occupational injuries. These deaths are not only a human tragedy but also have significant economic implications, with lost workdays globally representing almost 4% of the world's GDP. To address this issue, the ILO and other organizations are working to promote occupational safety and health, and reduce the number of work-related deaths and injuries.

Unsafe and unhealthy working conditions are often the result of a complex interplay of various factors including governance gaps examples inadequate regulatory frameworks, poor enforcement, and lack of accountability (Tong et al., 2022), Deficient legislative framework example insufficient or outdated laws and regulations that fail to protect workers' rights and safety. Insufficient knowledge and resources example are limited access to information, training, and resources that can help prevent occupational hazards (Oni et al., 2022). Unsustainable business practices examples prioritizing profits over people, leading to neglect of safety and health measures. Lack of a culture of prevention examples failure to prioritize prevention and safety at the national and workplace levels. In fiscal year 2020, OSHA had a budget of \$581,787,000 and employed 1,850 inspectors responsible for the well-being of 130 million workers at over eight million worksites. Number of Inspectors: In FY 2020, OSHA had approximately 790 inspectors. However, the number decreased to 750 inspectors by the end of FY 2021. Workers and Work Sites: OSHA, along with its state partners, is responsible for ensuring the safety and health of around 130 million workers at over 8 million work sites. This translates to about one compliance officer for every 70,000 workers.

According to the World Health Organization (WHO)/International Labour Organization (ILO) Joint Estimates, work-related diseases and injuries were responsible for the deaths of 1.9 million people in 2016. The Breakdown of Work-Related Deaths are as follows 1.52 million deaths primarily due to Chronic Obstructive Pulmonary Disease (COPD), Stroke and Ischaemic Heart Disease and 360,000 deaths due to injuries. Key Risk Factors include exposure to Long Working Hours, Workplace Exposure to Air Pollution, Global Impact of Work-related deaths per population decreased by 14% between 2000 and 2016, potentially reflecting improvements in workplace health and safety. A disproportionate number of work-related deaths occur in workers in South-East Asia and the Western Pacific, and among males and people aged over 54 years (ILO, 2021).

The majority of work-related deaths were due to respiratory and cardiovascular disease, with non-communicable diseases accounting for 81% of the deaths. About 2.3 million people worldwide have work-related accidents every year, resulting in over 6,000 deaths every single day. These statistics highlight the importance of prioritizing occupational safety and health to prevent work-related accidents and diseases (ILO, 2021).

Most studies focus on immediate post-training outcomes, with little attention to long-term knowledge retention and behavioural changes (Oluwatumininu & Thwala, 2021; Reed et al., 2023; Ajmal et al., 2022). There are limited studies that compare the effectiveness of different training methods, such as traditional lectures versus interactive or simulation-based training. There's a need for standardized training protocols and assessment metrics to ensure consistency across healthcare facilities. More research is needed on occupational safety and health training programs targeting underserved communities. Training programs often neglect to account for workers' existing knowledge and skills, which can impact training effectiveness. Filling these gaps is important because effective safety training programs can improve knowledge and skills, workers can better identify and mitigate hazards. Healthcare workers who are trained in safety protocols can provide higher quality care and reduce medical errors. Workers who feel supported and trained are more likely to be engaged and committed to their work. Research on effective safety training programs can inform policy and regulatory decisions, leading to improved workplace safety standards.

Safety training programs are crucial for safeguarding employees in various sectors (Rey-Becerra et al., 2021; Schwatka et al., 2020). Despite the critical role of safety training programs in preventing workplace accidents and injuries, many healthcare workers in Rivers State continue to be exposed to occupational hazards, resulting in work-related injuries and illnesses. While safety training programs are widely implemented in healthcare facilities, there is limited evidence on their effectiveness in improving worker safety and reducing occupational hazards. This study aims to assess the effectiveness of safety training programs for workers with a focus on identifying gaps and areas for improvement. Healthcare workers in Rivers State are exposed to various occupational hazards, including biological, chemical, physical, and psychosocial risks. There is limited research on the effectiveness of safety training programs in healthcare facilities in Rivers State. Safety training programs may not be tailored to the specific needs of healthcare workers, and may not be effective in improving worker safety and reducing occupational hazards. Thus, the aim of this study is to assess the effectiveness of safety training programs for workers in selected healthcare facilities in Rivers State. The objectives of this study are to: ascertain the effectiveness of different safety training methods, investigate the level of retention of safety knowledge, compliance and practice over time and evaluate the organizational role and support systems in enhancing the success of this safety training programs.

## **2.0 Methodology**

### **2.1 Study Area**

The research was conducted within selected healthcare facilities in River State. Rivers State, located in the southern part of Nigeria. It has human population of 9.9 million based on current projection and located within Latitude 4.75N and longitude 6.83E. The state has border with Atlantic Ocean in the south, Abia state in the eastern side, Bayelsa state in the western side and Imo state in the northern side. It is one of the nation's most dynamic states, renowned for its rich natural resources, vibrant urban centres, and pivotal role in the oil and gas sector providing opportunities for employment and economic growth while simultaneously presenting distinct challenges regarding workplace safety and risk management. In the context of evaluating the effectiveness of safety training programs, Rivers State offers a diverse and complex environment well-suited for research aimed at improving safety protocols and worker protection. The dynamic nature of healthcare facilities in Rivers State necessitates ongoing



**Table 1:** Population and sampled size of workers in the sampled hospitals

Hospitals	Population	Sample size
University of Port Harcourt Teaching Hospital	100	63
Rivers State University Teaching Hospital	100	63
Meridian Hospital Port Harcourt	50	32
Acron Medical Consultants	50	32
Total	300	190

### 2.3 Methods and Instrument for Data Collection

A descriptive cross-sectional research design was used in this study to assess the efficacy of safety training initiatives in the healthcare sector. A structured questionnaire was used to collect data. The instrument for data collection consisted of six sections (A to D). They are; Section A: Demographic Information, Section B: Effectiveness of Safety Training Programs, Section C level of retention of safety knowledge, compliance and practice over time: and Section D: Organizational Roles, Resources and Support System. (Describe using sentences) The instrument was administered directly to the respondents in order to gather data. To guarantee a high return rate, every attempt was made to retrieve them as soon as the instrument was finished.

### 2.4 Validity and Reliability of Instrument

The data collection tool was validated using face and content validity. In the context of this study, establishing content validity involved ensuring that the questionnaire addressed all relevant aspects of safety training, effectiveness, and compliance. The questionnaire was assessed by specialists in occupational health, public health, and safety for comprehensiveness, relevance, and clarity. Additionally, face validity was established by ensuring that the questionnaire not only covered the relevant content but was also understandable and seemed appropriate to those completing it. More so, to assess the questionnaire's reliability, a pilot test comprising 10% of the entire sample size was carried out in this investigation. The Cronbach alpha U was used to determine the statistical reliability of 0.995, which implies the instrument is reliable. A Cronbach alpha value that is above 0.5 (that is 50%) is reliable and values between 0.7 and 0.9 is very reliable.

### 2.5 Methods of Data Analysis

The assessment of the safety training program on employee adherence to workplace safety was summed up using descriptive statistics. The hypothesis was tested at the 5% level of significance using inferential statistics. The Statistical Package for Social Sciences (SPSS) version 26.0 was used to analyse the data. Descriptive statistics provides a snapshot of the data using measures of central tendency (example mean, median, mode), measures of variability (example, range, variance, standard deviation). Inferential statistics is a step further using sample data to make conclusions or predictions about a larger population. The inferential statistics used in this study are Analysis of Variance (ANOVA) and Regression Analysis. ANOVA was used to test the significance of different safety training methods and Safety knowledge and compliance while Regression Analysis was used to test the influence of organizational role and support systems on success of safety training programs.

### 3.0 Results and Discussion

#### 3.1 Sociodemographic Characteristics of respondents

Table 2 presents the socio-demographic characteristics of the respondents, detailing variables such as age, gender, role within the company, and other relevant factors. To further explore this topic. This section presents a detailed examination of the demographic and socio-economic attributes of individuals who participated in the survey. It explores key variables such as age, educational background, years of experience and job role. By analyzing these factors, the study aims to contextualize the responses and uncover patterns or disparities that may influence perceptions, behaviours, or outcomes within the surveyed population. Understanding these foundational characteristics is essential for interpreting the data with nuance and ensuring that conclusions drawn are both relevant and representative.

The age distribution of the surveyed population reveals a relatively balanced representation across various age groups. The largest segment consists of individuals aged 26–30 years, comprising 17.3% of the total, indicating a slightly greater concentration of young adults within the sample. Both the 31–35 and the 51 years and above categories account for 15.2% each, suggesting that the population includes significant proportions of both early middle-aged adults and older adults. Other notable age groups include those aged 46–50 years (14.7%) and 36–40 years (14.1%), both contributing meaningfully to the overall demographic composition. The group aged 41–45 years represents 12.6% of the sample, rounding out the midlife segment of the population. Overall, the distribution indicates that no single age group is overwhelmingly dominant, and each decade from the late twenties through the early fifties is well represented. This balance suggests a diverse population with perspectives spanning multiple life stages, which could contribute to a rich variety of experiences and viewpoints in any further analysis or application of these results. Turning to educational attainment, the data reveals a clear upward trend toward higher education levels within the population.

Examining the distribution of hospital experience among respondents reveals a well-spread yet distinct pattern. The largest group, representing 31.9%, consists of individuals with 1–5 years of experience, indicating a substantial presence of early-career professionals in the sample. Close behind, those with more than 10 years of experience account for 30.9%, suggesting a robust segment of seasoned experts who bring depth and established expertise to the field. Those with 6–10 years of experience form 28.8% of the cohort, demonstrating a considerable representation of mid-career professionals who likely possess both practical skills and advancing leadership capabilities. Finally, 8.4% of respondents have less than 1 year of experience, marking a smaller proportion of newcomers just starting in the industry. The overall trend shows a balanced mix of experience levels, with early-career, mid-career, and highly experienced professionals all significantly represented. There is, however, a slight tilt toward those with less than a decade of experience, collectively making up more than half the population. Examining the distribution of years of experience, the data reveals a workforce characterized by different professionals.

**Table 2:** Socio-demographic characteristics of respondents

Variable	Frequency (n = 188)	Percent (%)
<b>Age</b>		
18–25 years	21	11.0
26–30 years	33	17.3
31–35 years	29	15.2
36–40 years	27	14.1
41–45 years	24	12.6
46–50 years	28	14.7
51 years and above	29	15.2
<b>Educational Attainment</b>		
No formal education	13	6.8
Primary education	26	13.6
Secondary education	54	28.3
Tertiary education	98	51.3
<b>Years of Experience in healthcare sector</b>		
Less than 1 year	16	8.4
1–5 years	61	31.9
6–10 years	55	28.8
More than 10 years	59	30.9
<b>Job Role</b>		
Doctors	43	22.5
Nurses	38	19.9
Medical Laboratory Scientists	46	24.1
Pharmacists	31	16.2
Others	33	17.3

### 3.2; Effectiveness of training delivery methods

Table 3 presents the findings on the effectiveness of various training delivery methods used within healthcare workers. The results highlight how well these approaches equip workers with the practical safety knowledge and skills necessary for their roles. By analyzing employee responses and performance indicators, the table provides valuable insights into which training strategies are most successful in fostering essential competencies on site. The results indicate that employees generally view the safety training delivery methods positively. The lowest mean was associated with the statement “My company never provides safety training,” which recorded a score of 2.4. This indicates that most employees disagree with this statement, reinforcing the prevalence and perceived availability of safety training in their organizations. When compared to the criterion mean of 3.0, all positive statements about training delivery methods, content, and outcomes scored higher, highlighting an overall favorable perception and effectiveness of the safety training programs. In summary, the overall weighted mean of 3.38 implied that the majority of the respondents agreed that the various training delivery methods used within healthcare centers are effective.

This finding is consistent with work by Haslinda et al (2016), who argued that method alone cannot sustain long-term behaviour change. Chan et al. (2018) also reported similar results, noting that contextual factors such as organizational culture, reinforcement, and follow-up matter more than whether training is delivered physically or electronically. The implication

here is that organizations should focus less on finding a “perfect” training method and more on ensuring that workers are consistently supported before, during, and especially after training. Without the appropriate context, even a highly interactive or technologically advanced training approach will not produce meaningful change.

**Table 3:** Effectiveness of training delivery methods in equipping employees with practical safety knowledge and skills

S/N	Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	wt. Mean	Remark
1.	I have received formal safety training since joining this Hospital	61 (31.9)	53 (27.7)	31 (16.2)	28 (14.7)	18 (9.4)	3.6	Agree
2.	Classroom training is an effective way to learn safety procedures	48 (25.1)	59 (30.9)	27 (14.1)	34 (17.8)	23 (12.0)	3.4	Agree
3.	Hands-on training is effective in improving my safety skills.	44 (23.0)	66 (34.6)	21 (11.0)	36 (18.8)	24 (12.6)	3.4	Agree
4.	My management provides safety training periodically/ annually	56 (29.3)	61 (31.9)	29 (15.2)	28 (14.7)	17 (8.9)	3.6	Agree
5.	Online training is a convenient and effective way to learn safety procedures.	23 (12.0)	27 (14.1)	19 (9.9)	54 (28.3)	68 (35.6)	2.4	Disagree
6.	Simulation-based training helps me prepare for real-life safety scenarios.	52 (27.2)	64 (33.5)	33 (17.3)	24 (12.6)	18 (9.4)	3.6	Agree
7.	The training sessions were interactive and engaging	47 (24.6)	59 (30.9)	38 (19.9)	26 (13.6)	21 (11.0)	3.4	Agree
8.	The training included practical demonstrations or real-life safety scenarios	53 (27.7)	62 (32.5)	29 (15.2)	27 (14.1)	20 (10.5)	3.5	Agree
9.	On-the-job training provides me with practical safety experience.	49 (25.7)	68 (35.6)	32 (16.8)	22 (11.5)	20 (10.5)	3.5	Agree
<b>Overall wt. Mean</b>							3.38	Agreed

### 3.3 Retention of safety knowledge, compliance and practice over time

Table 4 presents a clear portrait of employee compliance with workplace safety protocols in hospitals following participation in safety training programs. The highest mean scores, both at 3.6, were attributed to two key statements: “How often do you apply the safety measures learned during training?” and “How often do supervisors enforce workplace safety regulations?” These results suggest that not only are employees actively putting safety measures into practice, but supervisors are also consistently monitoring and reinforcing these standards. In summary, the overall weighted mean of 3.43 reveals that the respondent agreed that safety training programs

in hospitals are highly effective in promoting employee compliance with safety protocols, with all measures exceeding the benchmark and substantiating the positive influence of structured training and supervisory oversight.

Bavafa et al. (2011) similarly reported that safety-related knowledge diminishes without ongoing reinforcement, and Ajmal et al. (2021) observed comparable declines in safety behaviour among workers who received training without follow-up sessions. These findings collectively indicate that one-off training programs are not enough, no matter how comprehensive they appear at the beginning. Without refreshers, periodic assessments, and supervisory reinforcement, trained behaviours slowly erode. This evidence directly addresses Objective iv of the study, confirming that safety knowledge and compliance naturally decline over time and demonstrating the need for structured, ongoing support systems.

**Table 4. retention of safety knowledge, Compliance with workplace safety protocols among employees after participating in the safety training program**

S/N	Statement	Always	Frequently	Occasionally	Rarely	Never	Wt. Mean	Remark
1.	I can recall the safety procedures and protocols learned during training.	63 (33.0)	49 (25.7)	38 (19.9)	22 (11.5)	19 (9.9)	3.6	Agree
2.	I understand the hazards and risks associated with my job.	51 (26.7)	56 (29.3)	41 (21.5)	26 (13.6)	17 (8.9)	3.5	Agree
3.	I can identify the correct personal protective equipment (PPE) for my tasks.	58 (30.4)	52 (27.2)	33 (17.3)	25 (13.1)	23 (12.0)	3.5	Agree
4.	I consistently follow safety procedures and protocols in my daily work.	54 (28.3)	59 (30.9)	36 (18.8)	28 (14.7)	14 (7.3)	3.6	Agree
5.	I wear PPE as required by safety protocols.	33 (17.3)	47 (24.6)	46 (24.1)	38 (19.9)	27 (14.1)	3.1	Agree
6.	I report safety incidents and near-misses to my supervisor.	47 (24.6)	62 (32.5)	31 (16.2)	28 (14.7)	23 (12.0)	3.4	Agree
7.	I actively participate in safety training and refresher courses.	44 (23.0)	51 (26.7)	37 (19.4)	32 (16.8)	27 (14.1)	3.3	Agree
<b>Overall wt. Mean</b>							3.43	Agreed

**3.4 The role of organizational policies and support systems**

Table 5 reveals a consistent trend of positive perceptions regarding organizational policies and support systems in the context of safety training outcomes within healthcare workers. Notably, the highest mean value of 3.6 was observed for both “My organization has clear occupational health and safety policies in place” and “Management actively supports safety training programs”. This suggests that employees perceive a strong foundation of safety-related

governance and active participation from management, both of which are critical drivers of effective safety training. Importantly, every mean score surpasses the criterion mean of 3.0. This benchmark can be interpreted as the threshold for moderate or satisfactory agreement. In summary, the trends and overall weighted mean of 3.43 indicate that majority of respondent agreed that healthcare workers with clear policies, dedicated resources, and management commitment are more likely to see positive outcomes from safety training.

This finding is strongly supported by existing literature. Ahmed et al. (2023) noted that younger healthcare workers—similar to the dominant age group in this study—tend to apply safety protocols more consistently when they feel supported through supervision and follow-up. Haslinda et al (2016) further explain that safety behaviours tend to fade when supervisors stop reinforcing them. When taken together, these studies highlight a critical insight: organizational support is not a supplementary factor but a central driver of training success. Access to resources, functional communication channels, encouragement from supervisors, and a workplace culture that genuinely prioritizes safety all contribute to whether training translates into actual behavioural change. The present study confirms that workers respond better, retain information longer, and follow procedures more faithfully when they feel that management is actively invested in their compliance.

**Table 5: Role of organizational policies and support systems in enhancing the outcomes of safety training programs**

S/N	Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	wt. Mean	Remark
1.	My organization prioritizes safety training and development.	54 (28.3)	66 (34.6)	29 (15.2)	25 (13.1)	17 (8.9)	3.6	Agree
2.	Our organization's safety policies and procedures are clear and well-communicated.	59 (30.9)	64 (33.5)	26 (13.6)	24 (12.6)	18 (9.4)	3.6	Agree
3.	My supervisor/manager supports and encourages me to apply safety training in my work.	52 (27.2)	61 (31.9)	28 (14.7)	30 (15.7)	20 (10.5)	3.5	Agree
4.	Our organization has a strong safety culture that promotes safe work practices.	37 (19.4)	53 (27.7)	38 (19.9)	35 (18.3)	28 (14.7)	3.2	Agree
5.	Safety is a top priority in our organization's decision-making processes.	41 (21.5)	58 (30.4)	31 (16.2)	36 (18.8)	25 (13.1)	3.3	Agree
6.	Our workplace encourages open reporting of safety	45 (23.6)	57 (29.8)	34 (17.8)	33 (17.3)	22 (11.5)	3.4	Agree

incidents and near-misses.

**Overall wt. Mean**

3.43

Agreed

**3.5 Hypothesis Testing**

This section presents a summary of the hypotheses tested to assess the effectiveness of safety training programs for workers in Rivers State. Hypotheses are tested based on the significance of the reported coefficient estimate corresponding to variables of interest in this study. Notably, all the hypotheses of this study were tested using the probability values reported for the ANOVA and regression model results.

**H<sub>01</sub>:** The different safety training methods used do not significantly improve workers’ safety knowledge and behaviour.

The result of hypothesis 1 (H<sub>01</sub>) revealed that different safety training methods used do not significantly improve workers’ safety knowledge and behaviour with p-value 0.391 > 0.05. By this result the null hypothesis 1 (H<sub>01</sub>) is accepted. Therefore, the different safety training methods used do not significantly improve workers’ safety knowledge and behaviour. See Table 6.

**Table 6: ANOVA on significance of different safety training methods**

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	2.739	3	0.913	0.654	0.391
Within Groups	305.477	219	1.395		
Total	388.215	222			

**H<sub>02</sub>:** Healthcare workers do not retain safety knowledge or maintain compliance with safety practices over time.

The SPSS output in Table 4.6 below shows that time had a significant effect on safety knowledge and compliance (F = 19.772, p = 0.000). This means that the scores of healthcare workers changed noticeably across the different time periods when their knowledge and compliance were measured. Because the significance value is far below 0.05, we can confidently say that these changes did not happen by chance. We therefore reject the null hypothesis and conclude that Healthcare workers do retain safety knowledge or maintain compliance with safety practices over time. se Table 7

**Table 7: ANOVA on Safety knowledge and compliance**

	Sum of Squares	df	Mean Square	F	Sig.
Time	82.739	3	27.580	19.772	0.000
Error Time	305.477	219	1.395		
Total	388.215	222			

**H<sub>03</sub>:** Organizational role and support systems do not significantly influence the success of safety training programs.

Since the p-value for organizational support is 0.000, which is less than 0.05. This means organizational support has a statistically significant influence on the success of safety training programs. Because significance is extremely strong ( $p < 0.001$ ), the effect is highly meaningful. Therefore, we reject the hypothesis that organizational role and support systems do not significantly influence the success of safety training programs see Table 8

**Table 8: Regression Analysis on effect of Organizational role and support systems**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	3.536	0.220		16.044	0.000
Organizational support	0.388	0.060	-.398	-6.447	0.000
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	
	0.398	0.158	0.154	1.18564	

#### 4.0 Conclusions

The effectiveness of safety training programs for workers in selected healthcare facilities in Rivers State has been assessed. It becomes clear that organizational support is at the heart of effective safety training. When strong policies are in place, leaders actively participate, and dedicated safety personnel are available, workers are more likely to understand, apply, and retain what they learn. The study also shows that safety knowledge and compliance naturally fade over time unless workers receive regular reminders through refresher training and follow-up sessions. In addition, the results reveal that the training method by itself is not what determines success. What truly strengthens training outcomes is the combination of reinforcement, managerial involvement, and making sure the training fits the real-life context of the job. The study further highlights that there are barriers at both the employee and organizational levels that can hinder successful implementation, and these must be addressed for training programs to achieve their full impact. Overall, the study concludes that safety training can be highly effective, but only when it is supported by a positive organizational culture and reinforced consistently over time. Without these vital elements, even the best-designed training eventually loses its effectiveness.

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