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Research Article

Healthcare Staff Training And Performance To Improve Service Quality

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ABSTRACT

In the case of hospital administration, there is a significant investment in technological adaptation and human resource training. Patient happiness contributes to the public's approval of healthcare institutions. Given the preceding, the healthcare business must assess its employees' skills and degree of performance in carrying out services and operational tasks. The current study examines the efficiency of healthcare employees, primarily administrative and non-technical, based on digital training provided. This study's population included nurses, administrative personnel, pharmacists, and a population of frontline healthcare professionals other than practitioners. The study's findings suggest that healthcare workers improved their confidence and performance after receiving technology-related training, which is essential in the healthcare industry. They did, however, show a lower degree of anxiety after completing the technology-related training. Thus, training programs can be viewed as motivating factors that significantly impact service quality.

Keywords: healthcare, training, digital, employees, confidence

Introduction

Today technology integration is improving the healthcare sector activities. Employees on all levels fear the loss of jobs due to a lack of technical knowledge. ICT plays a broader role in digitalization (Bandara et al., 2018). Many surveys have reported that lack of skill among healthcare workers causes anxiety, fear and poor performance in their working environment. Carrying out their daily work has become challenging (Clark, 2020). More research needs to be carried out to analyze the experience of front-line workers with digitalization (Vindrola-Padros et al., 2020). This paper focuses on analyzing the perception of the healthcare staff and their experience related to technology integration in delivering healthcare services.

In the case of hospital management, there is a significant investment in technology adaptation and training human resources. Thereby they can provide a customer-centric service. The patient's satisfaction supports the acceptance of the healthcare institutions towards the public. Confusing instructions, long queues, and staff attitudes must be handled for efficient service delivery (Souza et al., 2019). This is possible if the entire patient welfare system is IT-enabled (Molina-Arrebola et al., 2020). Thereby the healthcare environment is free of chaos. This involves maintaining e-health records, web-based applications, etc. The trend is overgrowing in both developed and developing countries (Koch et al., 2019). Globally the world is moving towards technology integration, especially in nursing care needs (Rana et al., 2020). Considering the above context, the healthcare industry needs to analyze the skill of their employees and their level of performance in carrying out the services and operational activities (Lee & Yoon, 2021). Thus the current study analyses the efficiency of the healthcare staff, primarily administrative and non-technical, based on the provided digital training. The study brings meaningful insights into the operational efficiency of the healthcare worker after digital integration. The training enables the staff to assess their performance. The following is how the rest of the paper's section is organized: Section 2 discusses various related studies. Sections 3 and 4 discuss the current study's importance and the various research objectives addressed in the paper. Section 5 covers the research methodology, while Section 6 covers the results and discussion. Finally, sections 7 and 8 discuss the study's limitations and conclusion.

1. Related Research

This section review on the various literature works related to the current study. Bandara et al. (2018) discussed a project in IT-enabled improvement considering the enhancement in satisfying the patient's needs. Dompe Hospital was considered for the case study. IT services upgraded include admission, emergency, consultation, outpatient, Etc. The employees played a vital role in all the levels for the above changes. The case study has brought new lessons for hospital management. Although implementation constraints exist, management must overcome the limitations and support positive change. Salami et al. (2022) addressed the after-effects of training and development in a Nigerian public hospital. The study sample considered nurses, administrative staff and healthcare professionals. A 353 sample size was considered through convenience sampling. Descriptive statistics was the method used to analyze the responses. The respondents were 64% females when compared to males. This demonstrates that the majority of female gets involved in the healthcare sector. The result demonstrates a significant impact on the patients' wait time. However, there needs to be more orientation training given to healthcare workers. Nigeria's government formulating improvement strategies for public hospitals remains a challenge. Diab & Ajlouni (2015) analyzed the influence of training on the employee's performance. The Jordanian private hospitals were considered as the case study. The quantitative research methodology was applied to a sample of 380. The study demonstrated a strong relationship between training and employee performance. Training needed a better relationship with the organizational commitment. It is observed that training improves the efficiency of the employee. However, organizations arranging consistent training remain a challenge. Baker et al. (2005) reviewed the two types of training the medical team underwent. These were simulation and classroom training programs. The healthcare community not only involves healthcare professionals. It includes technicians, pharmacists, physicians, etc., who provide quality care to patients. The review concluded that classroom-based training was practical and provided the best results. However, the effect of training entirely depends upon the employees' skills and attitudes. Ogbonnaya et al. (2018) examined the perception of healthcare workers concerning teamwork influence. Teamwork is a dynamic activity. Healthcare workers need to collaborate for a common goal. The study analyzed the employee's job satisfaction and work engagement. Sample sizes of 366 were considered for the study. The correlations among the two variables were analyzed. The results demonstrate that teamwork is not associated with patient satisfaction. For quality services, staff training is essential. Adnan Bataineh (2019) investigated the relationship between work-life balance, happiness and employee performance. A theoretical model was presented to show the relationship between variables. The population from pharmaceutical industries for a sample of 315 employees were considered. The study explored that there exists a positive significant impact on the work-life balance and the employee's performance. Employees who experience a lower level of stress show higher satisfaction. However, the case of other industry employees and their performance analysis remains challenging. Gadalla & Mukhtad (2021) considered the role of healthcare workers concerning technology development. To achieve better quality, it is essential to have better employee performance. A descriptive cross-sectional study was carried out for a sample size of 51. The study demonstrated that training and development are essential to improve the worker's performance. However, analyzing issues related to training and development remains a challenge. Thus there are several advantages to carrying out employee training. Training bridges the gap between skill development and performance. This paper aims to analyze the efficiency of the healthcare staff due to technology integration.

2. Significance of the Study

To lead a quality life, it is essential to have a successful work-life balance, as only a happy employee will become a productive employee. In the case of healthcare workers keeping the employees' performance is a challenge (Javaid et al., 2020). Long hour's engagement of employees and stress on their health safety significantly reduces their performance. For quality healthcare delivery, it is essential to provide job satisfaction and employee engagement (Saqlain et al., 2020). Despite the advancements in information technology, it reduces the burden of administrative activity (Yan et al., 2020). The purpose of the study in the paper was to bring insights into the operational efficiency of healthcare workers after undergoing a digital training programme as a part of skill development.

4. Research Objective and Hypothesis

4.1 Research Objective

Objective 1: To identify the perceptions and experiences of non-medical healthcare providers' regarding their digital technology-oriented training to support essential healthcare services.
Objective 2: To analyze confidence, performance, and anxiety as the aftereffects of technology-based training.
Objective 3: To identify the impact of training on patients and their perceptions.

4.2 Hypothesis

There is no significant difference in the confidence level among pre-trained and post-trained healthcare workers.
There is no significant difference in the level of performance among pre-trained and post-trained healthcare workers.
There is no significant difference in the level of anxiety among pre-trained and post-trained healthcare workers.

5. Research Methodology

An experimental and quantitative research design was used in this study. The population of this study was nurses, administrative staff and pharmacists, for a population of frontline healthcare workers other than practitioners were considered for the study. Sample sizes of 48 were included in the study. The demographic statistics of n=48 are shown in below Table 1.

Table 1 Demographics Statistics (N=48)

S.No.	Demographics	Category	N	%
1	Gender	Male	8	16.66
		Female	40	83.33
2	Age	18 to 25	7	14.58
		26 to 35	21	43.75
		36 to 45	11	22.91
		Above 45	9	18.75
3	Work Experience	Less than 5	7	14.58
		6 to 10	22	45.83
		11 to 15	19	39.58

The current study utilized convenient sampling based on the availability of the nearest healthcare institution, as it is convenient to implement. The primary source of data was the use of a questionnaire. To analyze and interpret the responses, descriptive statistics were used. Also, two days of digital training was implemented to enhance their technology skill to carry out experimental analysis. Followed by the training focussed on analyzing the employee's performance, confidence and anxiety levels. The employees were informed of the need for the questionnaire before and after the training programme. They were given 30 minutes to submit their responses, received all 48 responses. The scoring rate is shown below in Table 2:

Table2 Score Rating

Classification	Score
Strongly agree	5
Agree	4
Neutral	3
Disagree	2
Strongly disagree	1

6. Results and Discussion

From the demographics Table 1, 83.33% of respondents are female, and 16.66% are male. This demonstrates that female respondents are higher in the healthcare sector. When considering their age category, 14.58% are 18 to 25, 43.75% are 26 to 35, 22.91% are 36 to 45, and 18.75% are above 45. Regarding their working experience, 14.58% have less than five years of experience, 45.83% have 6 to 10 years, and 39.58% have 11 to 15 years of experience. Most of the respondents fall under the diploma and degree education level. Therefore they need more technical skills, and there is a need for digital training. The experimental results of the current study are shown in Table 3.

Table 3 Results of the Current Study

		N	Mean	SD	Std. Error Mean
Pre-training	Confidence	48	2.27	1.09	0.157
	Performance	48	2.44	1.15	0.166
	Anxiety	48	3.79	0.988	0.143
Post-training	Confidence	48	3.63	1.12	0.162
	Performance	48	3.52	1.25	0.181
	Anxiety	48	2.33	1.02	0.147

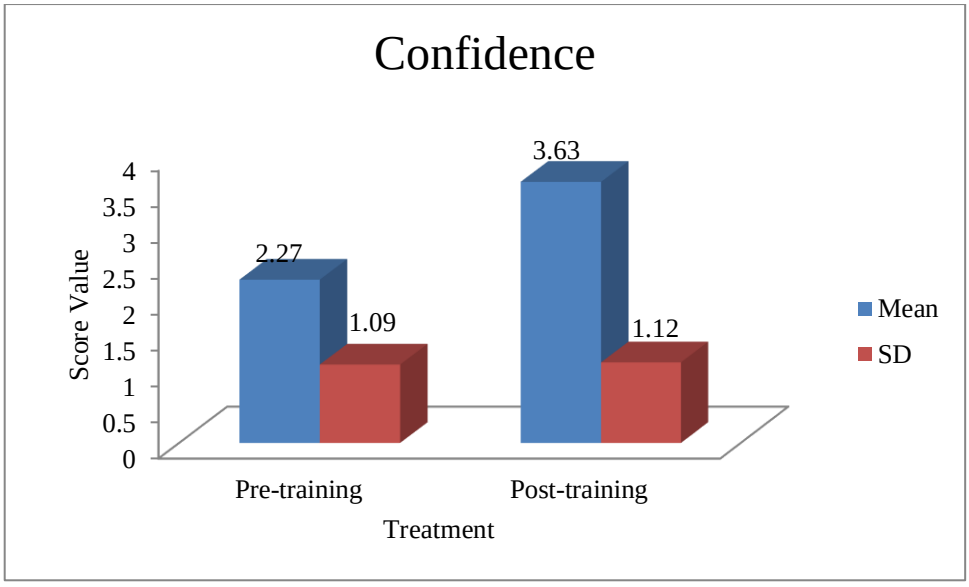

Figure 1 Confidence Score

The pretraining confidence mean score is 2.27, lower than the post-training mean score of 3.63. The standard deviation scores are 1.09 and 1.12, respectively. This demonstrates that the hypothesis "There is no significant difference in the confidence level among pre-trained and post-trained healthcare workers" is rejected. There exists a significant difference. The healthcare employees showed higher confidence after undergoing the technology-related training, as confidence plays a vital role in healthcare. It is required to communicate and handle patients reliably.

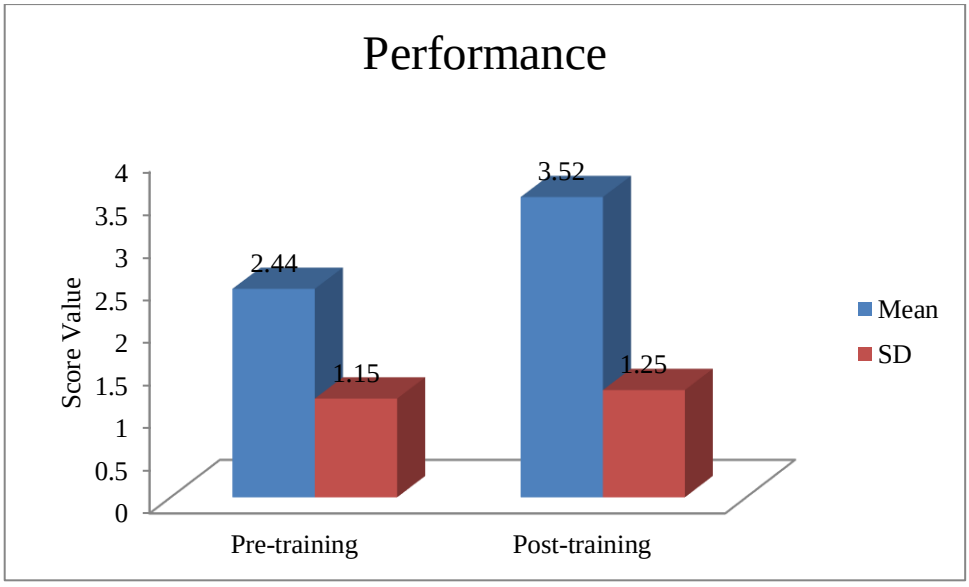

Figure 2 Performance Score

The pretraining performance mean score is 2.44, lower than the post-training mean score of 3.52. The standard deviation scores are 1.15 and 1.25, respectively. This demonstrates that the hypothesis "There is no significant difference in the level of performance among pre-trained and post-trained healthcare workers" is rejected. There exists a significant difference. The healthcare employees showed a higher level of performance after undergoing the technology-related training. The employees who exhibit high performance can only be able to deliver good quality services. Healthcare being a public service, it is necessary to provide quality service. This improves patient safety and satisfaction.

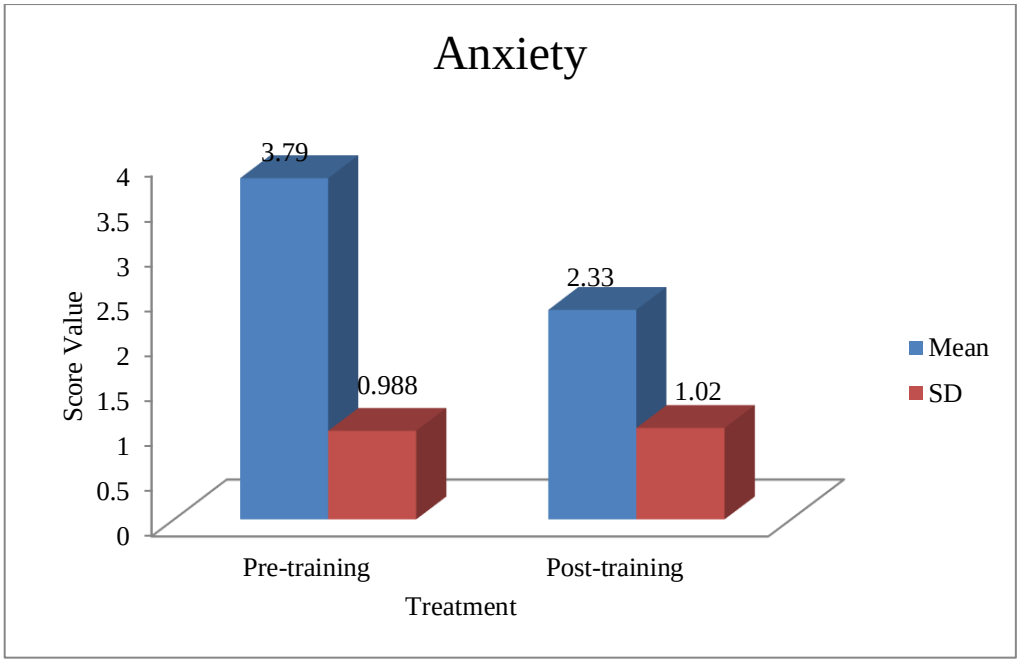

Figure 3 Anxiety Score

The pretraining performance mean score is 3.79, higher than the post-training mean score of 2.33. The standard deviation scores are 0.988 and 1.02, respectively. This demonstrates that the hypothesis "There is no significant difference in the level of anxiety among pre-trained and post-trained healthcare workers" is rejected. There exists a significant difference. Healthcare employees show lower anxiety after undergoing technology-related training. Employees with higher levels of anxiety exhibit avoidance behaviour when dealing with patients. Since most healthcare employees are female, they can be easily affected by stress and pressure in balancing work and family life.

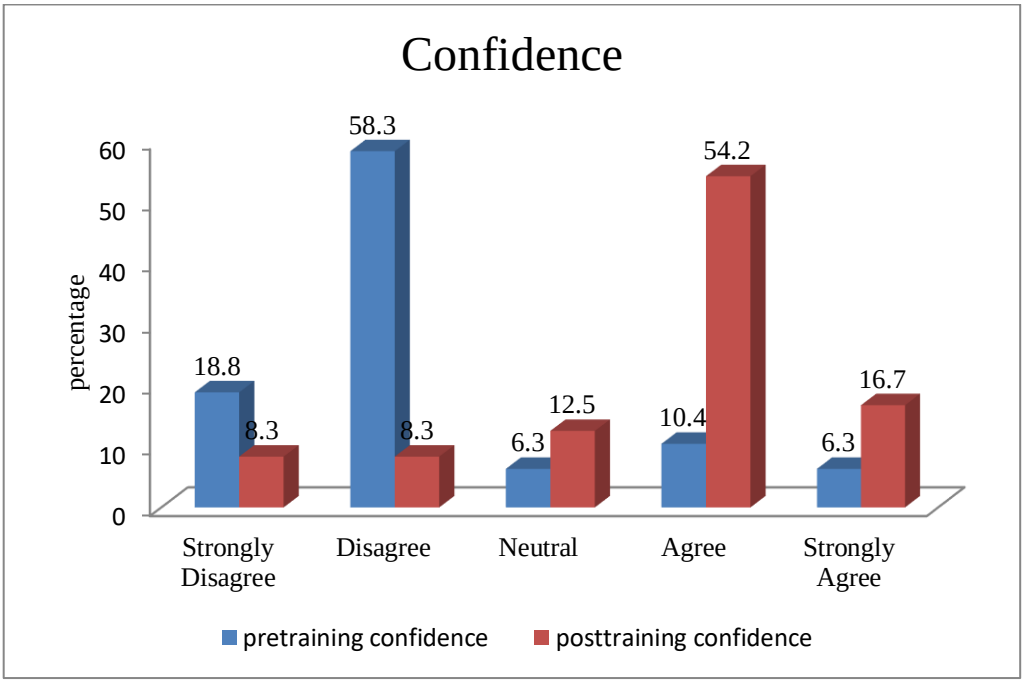

Figure 4 Confidence Response

Figure 4 shows that the confidence response is higher in the post-training. 54.2% of the respondents agree 16.7% strongly agree with their increase in the level of confidence. In comparison, only 8.3% of the respondents disagree.

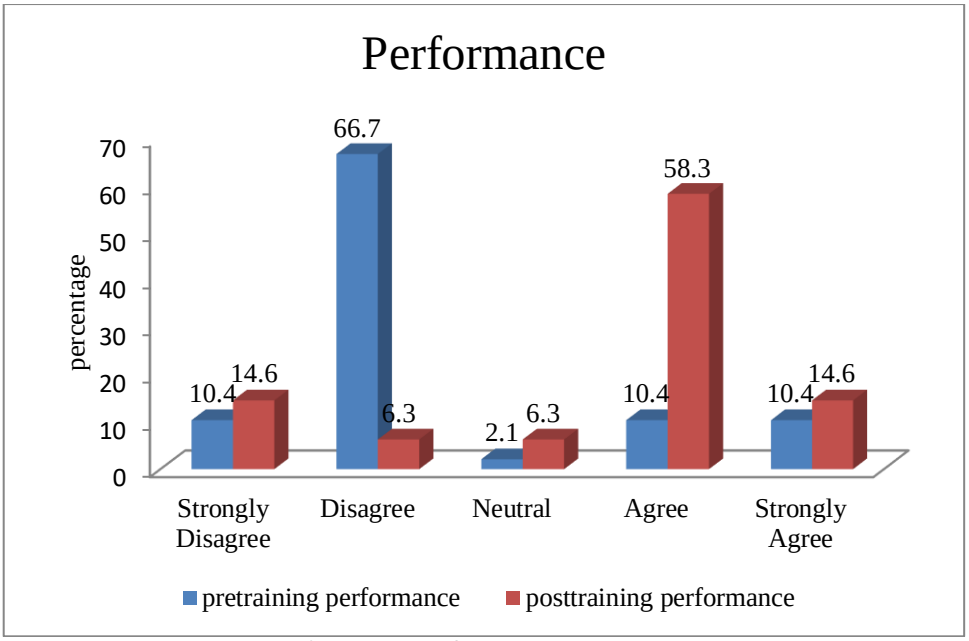

Figure 5 Performance Response

Figure 5 shows that the performance response is higher in the post-training. 58.3% of the respondents agree, and 14.6% strongly agree with their increase in the level of performance. Whereas only 6.3% of the respondents disagree and 14.6% disagree. Contributing to the current study, the study by Gadalla & Mukhtad (2021) showed that 59.5% of healthcare employees prefer to receive training to improve their performance.

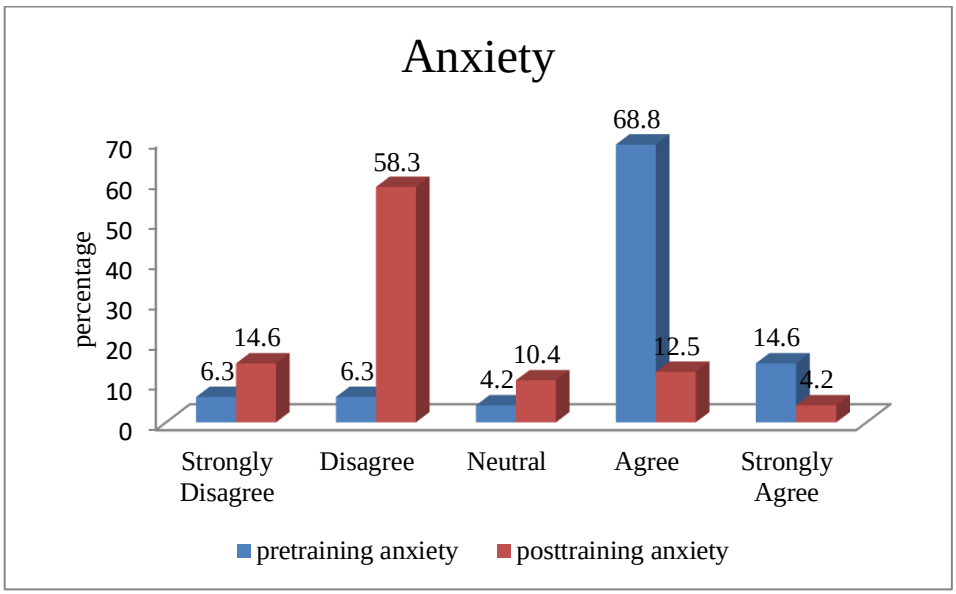

Figure 6 Anxiety Response

From Figure 6, it is evident that 68.8% of the respondents who had higher anxiety have been reduced to 12.5%. Thus demonstrating that technology-related training has lowered the anxiety of healthcare workers. Table 7 presents the results of the other variables.

Table 4 Results of the Other Variables

	N	Mean	SD
Coordination	48	3.67	1.19
Applying Skills	48	3.56	1.15
Job Satisfaction	48	3.83	0.907
Communication	48	3.77	1.08
Efficiency	48	3.83	0.975
Teamwork	48	3.73	1.03

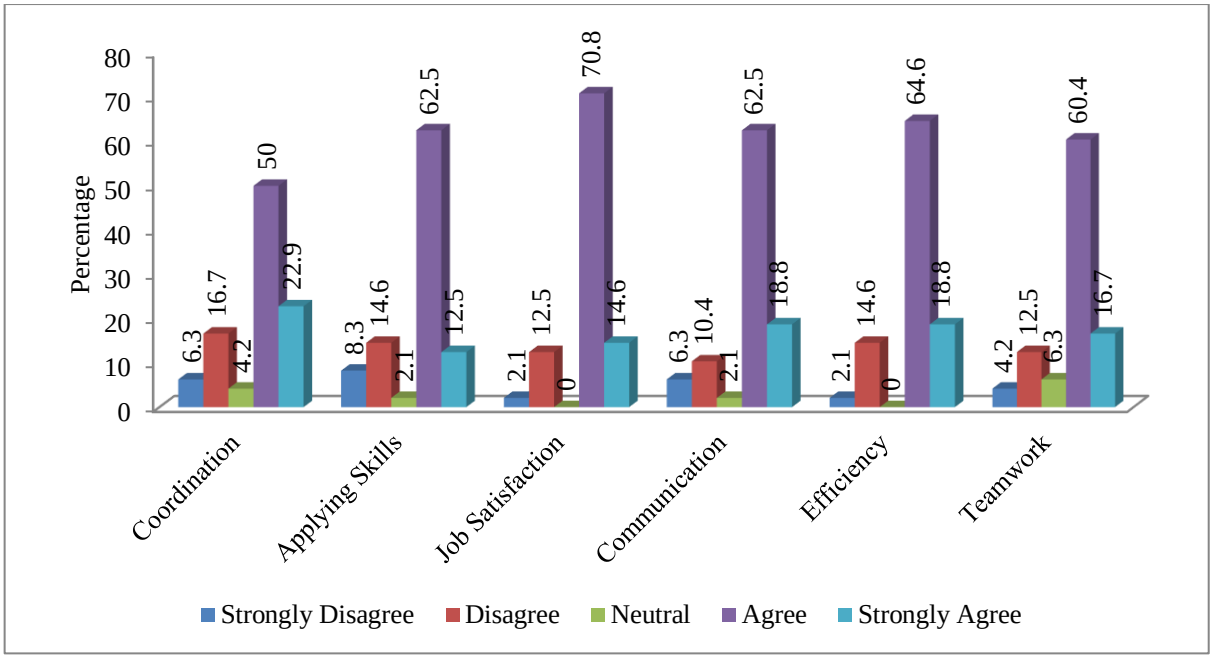

Figure 7 Descriptive Statistics of the Other Variables

Figure 7 shows the descriptive statistics of the other variables. It has been observed that the respondents have agreed 50% (coordination), 62.5% (applying skills), 70.8% (job satisfaction), 62.5% (communication), 64.6% (efficiency) and 60.4% (teamwork). Similarly, the strongly agreed are 22.9%, 12.5%, 14.6%, 18.8%, 18.8%, and 16.7%, respectively. Table 8 presents the one-sample T-test, and Figure 8 the Pearson correlation matrix results of the study.

Table 5 One-Sample T-Test

			statistic	df	p
Coordination			21.3	47.0	<.001
Applying Skills			21.5	47.0	<.001
Job Satisfaction			29.3	47.0	<.001
Communication			24.3	47.0	<.001
Efficiency	E	Student's t	27.2	47.0	<.001
Teamwork			25.2	47.0	<.001

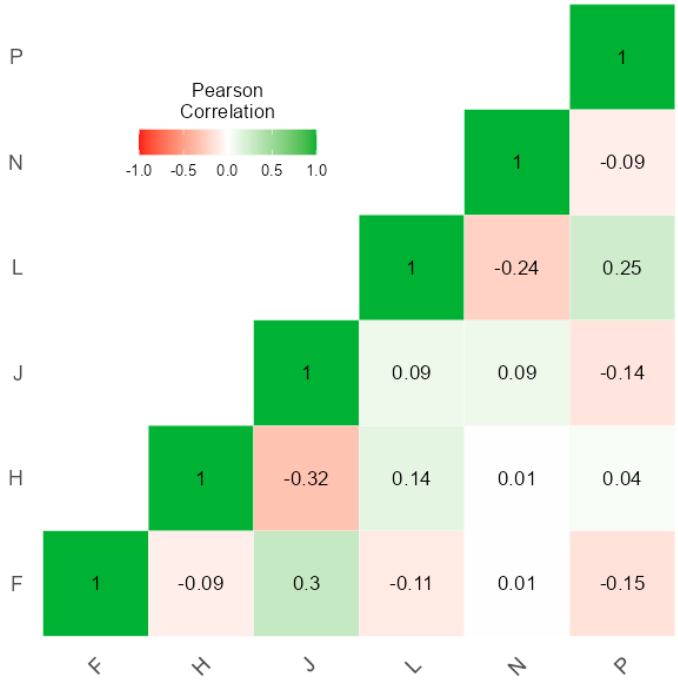

Figure 8 Pearson Correlation Results

7. Limitations

The study is based on the Indian context. Only a limited sample size of 48 healthcare workers was considered in the study. The performance of employees specific to the healthcare industry was only considered.

8. Conclusion

Our findings support several recommendations to enhance the technical skill of healthcare workers. The stakeholders must assess the technical skill of their employees and analyze the difficulties to improve the quality of patient care. The study's findings indicate that healthcare employees showed higher confidence and performance after undergoing the technology-related training, as confidence plays a vital role in the healthcare service. However, they exhibited a lower level of anxiety after undergoing the technology-related training. 58.3% of the respondents agree, and 14.6% strongly agree with their increase in the level of performance. Also, 68.8% of the respondents with higher anxiety have been reduced to 12.5%. Thus training programs can be considered a motivational factor that can positively enhance the quality of the services. The role of managerial factors can be explored in future research to examine the issues related to training and development in the healthcare sector.

References

1. Bandara, W., Syed, R., Ranathunga, B., & Sampath Kulathilaka, K. B. (2018). People-centric, ICT-enabled process innovations via community, public and private sector partnership, and e-leadership: The case of the Dompe eHospital in Sri Lanka. *Business Process Management Cases: Digital Innovation and Business Transformation in Practice*, 125-148.
2. Adnan Bataineh, K. (2019). Impact of work-life balance, happiness at work, on employee performance. *International Business Research*, *12*(2), 99-112.
3. Baker, D. P., Gustafson, S., & Beaubien, J. M. (2005). Medical Team Training Programs. *Advances in patient safety: from research to implementation*, *4*, 253.
4. Clark, J. T. (2020). Distance education. In *Clinical engineering handbook* (pp. 410-415). Academic Press.
5. Diab, S. M., & Ajlouni, M. T. (2015). The influence of training on employee's performance, organizational commitment, and quality of medical services at Jordanian private hospitals. *International Journal of Business and Management*, *10*(2), 117.
6. Gadalla, R., & Mukhtad, A. A. (2021). The Effect of Training Programs on the Performance of Healthcare Workers at Benghazi Medical Center (BMC). *Libyan Journal of Dentistry*, *5*(2).
7. Javaid, M., Haleem, A., Vaishya, R., Bahl, S., Suman, R., & Vaish, A. (2020). Industry 4.0 technologies and their applications in fighting COVID-19 pandemic. *Diabetes & Metabolic Syndrome: Clinical Research & Reviews*, *14*(4), 419-422.
8. Koch, C., Hansen, G. K., & Jacobsen, K. (2019). Missed opportunities: Two case studies of digitalization of FM in hospitals. *Facilities*, *37*(7/8), 381-394.
9. Lee, D., & Yoon, S. N. (2021). Application of artificial intelligence-based technologies in the healthcare industry: Opportunities and challenges. *International Journal of Environmental Research and Public Health*, *18*(1), 271.
10. Molina-Arrebola, M. A., Fernández-Guerrero, E., Aguirre-Ortega, F. J., & Avivar-Oyonarte, C. (2020). Digital resources for transfusion education. *Journal of education and health promotion*, *9*.
11. Ogbonnaya, C., Tillman, C. J., & Gonzalez, K. (2018). Perceived organizational support in health care: The importance of teamwork and training for employee well-being and patient satisfaction. *Group & Organization Management*, *43*(3), 475-503.
12. Rana, W., Mukhtar, S., & Mukhtar, S. (2020). Mental health of medical workers in Pakistan during the pandemic COVID-19 outbreak. *Asian journal of psychiatry*, *51*, 102080.
13. Salami, Y., Daniel, C. O., Muritala, T. A., Ibrahim, U. A., & Nwoye, M. I. (2022). Impact of Training and Development on the Performance of Public Hospitals in Abuja-FCT, Nigeria. *Journal of Human Resource and Sustainability Studies*, *10*(3), 418-432.
14. Saqlain, M., Munir, M. M., Rehman, S. U., Gulzar, A., Naz, S., Ahmed, Z., ... & Mashhood, M. (2020). Knowledge, attitude, practice and perceived barriers among healthcare workers regarding COVID-19: a cross-sectional survey from Pakistan. *Journal of Hospital infection*, *105*(3), 419-423.
15. Souza, C. F. Q. D., Oliveira, D. G. D., Santana, A. D. D. S., Mulatinho, L. M., Cardoso, M. D., Pereira, E. B. F., & Aquino, J. M. D. (2019). Evaluation of nurse's performance in telemedicine. *Revista brasileira de enfermagem*, *72*, 933-939.
16. Vindrola-Padros, C., Andrews, L., Dowrick, A., Djellouli, N., Fillmore, H., Gonzalez, E. B., ... & Johnson, G. (2020). Perceptions and experiences of healthcare workers during the COVID-19 pandemic in the UK. *BMJ open*, *10*(11), e040503.
17. Yan, A., Zou, Y., & Mirchandani, D. A. (2020). How hospitals in mainland China responded to the outbreak of COVID-19 using information technology–enabled services: An analysis of hospital news webpages. *Journal of the American Medical Informatics Association*, *27*(7), 991-999.