



A Pilot Study to Examine the Impact of EI on Workplace Performance Amongst Medical Technicians During COVID-19

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(Received: 16 September 2024

Revised: 11 October 2024

Accepted: 04 November 2024)

KEYWORDS

Emotional
Intelligence;
Workplace
Performance;
COVID-19

ABSTRACT:

Introduction: Emotional intelligence (EI) affects professional performance, especially in high-stress areas like healthcare during a pandemic. High EI may assist medical technicians manage stress, stay cheerful, and handle job expectations, which are crucial for workplace success.

Objective: The study was designed as a cross-sectional study with an aim to examine the relationship between EI, workplace performance amongst medical technicians during the COVID-19 pandemic. Data was collected at a single point in time to provide a snapshot of the current situation.

Methods: A quantitative research approach was used to collect and analyze numerical data on emotional intelligence, job performance. This approach allowed the testing of hypotheses and the identification of statistically significant relationships between variables. The target population included medical technicians working in healthcare settings during the COVID-19 pandemic selected using convenience sampling. Self-administered survey questionnaire was used to collect data on demographics, emotional intelligence, and job performance. The questionnaire was checked for reliability and face validity.

Results: Correlation analysis between Emotional Intelligence and Average Workplace Performance showed a statistically significant Pearson correlation coefficient (0.511) at the 0.01 level (2-tailed) indicating a moderate positive correlation between Emotional Intelligence and Average Workplace Performance. Regression coefficient was found to be statistically significant ($t = 22.996$, $p < .001$), suggesting the EI as a strong predictor of workplace performance.

Conclusion: These findings suggest that initiatives and techniques to improve medical technicians' emotional intelligence may help the healthcare system overcome the pandemic.

Introduction:

The COVID-19 pandemic has brought about unprecedented challenges to the healthcare system globally, with medical technicians playing a crucial role in ensuring the efficient functioning of hospitals and healthcare facilities [1]. The ability of these frontline workers to perform their duties effectively, maintain high levels of workplace performance, and demonstrate commitment to their organizations has become increasingly important during these

challenging times. Emotional intelligence (EI) has been identified as a key factor that influences workplace performance, particularly in high-stress environments such as healthcare settings during a pandemic [2].

Emotional intelligence is defined as the ability to perceive, understand, and manage one's own emotions, as well as the emotions of others [3]. It encompasses skills such as empathy, self-awareness, self-regulation, and social skills [4]. In



the context of medical technicians, high levels of emotional intelligence can help them navigate the emotional demands of their job, cope with stress, and maintain a positive attitude, all of which are essential for workplace performance [5]. The purpose of this study is to examine the relationship between emotional intelligence and workplace performance among medical technicians.

Understanding these relationships can provide valuable insights into the role of emotional intelligence in shaping the behavior and attitudes of medical technicians during a pandemic. This knowledge can inform interventions and strategies aimed at enhancing emotional intelligence among medical technicians, thereby improving their workplace performance that ultimately may contribute to the overall resilience of the healthcare system.

Emotional Intelligence and Workplace Performance:

Several studies have shown a positive relationship between emotional intelligence and job performance among healthcare professionals, including medical technicians. For example, a study by Goleman et al. found that nurses with higher levels of emotional intelligence were rated higher in-patient care skills and overall job performance [6]. Similarly, a study by Cherniss and Goleman found that emotional intelligence was a significant predictor of job performance among healthcare professionals [7]. During the COVID-19 pandemic, the importance of emotional intelligence in job performance has become even more evident. Medical technicians are facing increased pressure and stress due to the demands of the pandemic, and their ability to manage their emotions and remain focused on their tasks is crucial for maintaining high levels of job performance. During the COVID-19 pandemic, job performance was particularly important as healthcare organizations were relying on their employees to foster patient needs in volatile situation of Covid-19. Medical technicians with high levels of emotional intelligence are more likely to be better at their performance, which can contribute to their overall resilience and ability to cope with the challenges of the pandemic. The study aims to

provide a breakthrough to develop a model to assess emotional intelligence, and job performance, particularly during volatile, unpredictable, complicated, and ambiguous situations such as the COVID-19 pandemic.

Material and Methodology:

After the Institutional Protocol Committee clearance, this study was conducted in Sir Ganga Ram Hospital, New Delhi, India. The study was descriptive and analytical in nature. It was based on Primary as well as Secondary data. The study was designed as a cross-sectional study design. It was used to examine the relationship between emotional intelligence, job performance among medical technicians during the COVID-19 pandemic. Data was collected at a single point in time to provide a snapshot of the current situation.

Questionnaire survey was designed to collect the data from the respondents. 150 Subject respondents were selected among the technicians working in institution that had been declared as Covid dedicated facility during the pandemic. Respondents were the employees working permanently or on ad-hoc basis were taking part in this survey and provided us different perspectives to study emotional intelligence and their commitment towards the institution and fulfilling their commitments towards institution even during the stressful times such as Covid pandemic. All participants were of millennial generation i.e., between 23- 45 years of age group. (Age Criteria based on a review by U.S. Chamber of Commerce Foundation, 2012)

The data was collected through questionnaire survey; Non-probability Judgmental sampling was used. (Judgmental sampling includes selection of respondents based on their knowledge and their profession).

The methodology of our research was qualitative and quantitative in nature. Data was collected from Primary and Secondary sources only after their consent to participation and completing the questionnaire under the millennium age group.

Questionnaire inquired about the gender, age, job tenure, organizational tenure, and employment experience of participants as well as question related



to objectives. The survey questionnaire was distributed electronically to medical technicians working in healthcare facilities. Participants were asked to complete the questionnaire at their convenience, and data was collected anonymously to ensure confidentiality.

Trait Emotional Intelligence Questionnaire (TEIQue) was used to measure global trait emotional intelligence. Originally the TEIQue exists in a long form and a short form. Respondents used a 7-point scale for the items. Internal consistency and test-retest both demonstrated scale reliabilities of 0.71 and 0.76, respectively, with high correlations, indicating validity in measuring emotional intelligence and the "Big Five" Personality Traits. Job performance was measured using institutional scale used by human resources at a regular interval to evaluate the performance of their employees. We shortened these Questionnaires as our study required.

Statistical Technique:

For ordinal data (individual Likert-scale questions), use of non-parametric tests such as Spearman's correlation. For interval data (overall Likert scale scores), use of parametric tests such as Pearson's r correlation or t-tests.

Results

A total of 150 technicians were enrolled in this study. Demographic data such as gender distribution of respondents, employment types and the stress level they feel throughout the pandemic was noted to study the relationship of emotional intelligence with job performance during COVID pandemic (Table 1). Majority of the study participants were males, with male: female ratio as 1:3.8. The participants were mostly permanent employees. A large number of respondents suffered from high or moderate level of stress during pandemic period.

Table 1. Demographic variables of the study participants

Demographic Variables		No. (%)
Gender	Male	119 (79.3%)/
	Female	31(21.7%)
Employment type	Permanent	129 (86%)
	Tenure	21(14%)
Stress Level	High	63(42%)
	Medium	61(40.6%)
	Low	25(16.6%)

In order to check the reliability of the questionnaire we calculated Cronbach's alpha score and the results were found to be reliable (Table 2). The components of self-awareness, relationship awareness, and social awareness showed no reliability in the assessment of emotional intelligence among the Medical Technicians (Cronbach's alpha <0.6). Self-

management was the only variable that showed reliability (Cronbach's alpha- 0.602). overall emotional intelligence was found to be reliable with Cronbach's alpha of 0.898. The overall workplace performance reliability was calculated to be 0.956 which signifies reliability.

Table 2. Cronbach's Alpha score calculated from the questionnaire

	Reliability Statistics	
	Cronbach's Alpha	No. of Items



Emotional Intelligence	Total	0.898	30
	Self awareness	0.516	8
	Relationship awareness	0.496	5
	Self management	0.602	10
	Social awareness	0.107	7
Workplace Performance		0.956	18

We observed a face validity score of 0.9 for our questionnaire, which indicates a high level of agreement among the five individuals who evaluated it. In our case, the reviewers found 90% of the questionnaire content to be appropriate and relevant. The correlation analysis between Emotional Intelligence and Average Workplace Performance shows a Pearson correlation coefficient of 0.511, which is statistically significant at the 0.01 level (2-tailed). This indicates a moderate positive correlation between Emotional Intelligence and Average Workplace Performance. The R value of 0.511 suggested that Emotional Intelligence being moderately positively related to Average Workplace Performance.

In this study, ANOVA confirmed that the regression model, which included Emotional Intelligence as a predictor, significantly explained the variance in Average Workplace Performance. The model was statistically significant, as indicated by the high F-value (528.18) and the very low p-value $<.001$. This suggested that Emotional Intelligence is an important factor in predicting workplace performance.

The coefficient for Emotional Intelligence indicated that for each unit increase in Emotional Intelligence, on average, a 0.901 unit increase in workplace performance. This coefficient was found to be statistically significant ($t = 22.996$, $p < .001$), suggesting that Emotional Intelligence is a strong predictor of workplace performance. The significant F-statistic (84.67, $p < .001$) suggested that there were significant differences in the mean workplace performance scores between the Low, Moderate, and High groups. The p-value ($<.001$) indicated the probability of these differences occurring by chance

to be less than 0.1%, confirming the differences in means to be statistically significant.

Discussion

Emotional intelligence (EI) influences professional performance, particularly in high-pressure environments such as healthcare during a pandemic. The present study aimed to provide a model for evaluating EI and work performance, especially in volatile, unexpected, complex, and ambiguous contexts like the COVID-19 epidemic. A significant proportion of responders had high or moderate levels of stress throughout the pandemic period.

The significant correlation between EI and average workplace performance has been observed in the present study. Similar findings have been reported by Li et al. (2018) who found a positive correlation between trait emotional intelligence and performance among subjects [8].

The model summary indicated that Emotional Intelligence is a significant predictor of Average Workplace Performance, explaining about 26.1% of the variance. The moderate positive correlation suggested that improvements in Emotional Intelligence were likely to be associated with better workplace performance. In a study by Farh et al. (2012) overall emotional intelligence led to more effective teamwork and higher job performance. However, since a significant portion of the variance remains unexplained in this study, it is important to consider other factors that may also impact workplace performance [9].

We found that Emotional Intelligence is an important factor in predicting workplace performance, according to the data analysis report of the present study. A study by Carrillo et al. (2020),



also predicted the EI as a predictor of Job Performance giving support to findings to be in assumption for positive relationship in between these two parameters [10].

Overall, the results suggested the Emotional Intelligence to be a significant predictor of workplace performance, with higher Emotional Intelligence associated with higher average workplace performance.

Conclusion

The literature reviewed in this section provides strong evidence for the importance of emotional intelligence in shaping the behavior and attitudes of medical technicians during the COVID-19 pandemic. Higher levels of emotional intelligence are associated with higher levels of job performance and emotional intelligence can also act as a buffer against the negative effects of job stress on these outcomes. These findings highlight the potential benefits of interventions and strategies aimed at enhancing emotional intelligence among medical technicians, which can ultimately contribute to the overall resilience of the healthcare system during the pandemic.

Limitations

This study data comprised of only 100 respondents that may not be sufficient to make a conclusive remark. The findings of the study may be limited in their generalizability to other populations or contexts due to the use of convenience sampling. Also, the use of self-reported measures may introduce bias, as participants may provide socially desirable responses or may not accurately assess their emotional intelligence, job performance.

Future Research Directions

Future research could use a longitudinal study design to examine the long-term effects of emotional intelligence on job performance among medical technicians. Also, could explore the effectiveness of interventions aimed at enhancing emotional intelligence among medical technicians and their impact on job performance.

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