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Impact of Physician Mindfulness on Patient Care Quality: A Study from an Indian Corporate Hospital

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Abstract

This study investigates the association between physician mindfulness and patient care quality within a corporate hospital in India. Through review of global and Indian literature from two decades via Google Scholar and Scopus, we formulated a research framework. This framework used the Five Facet Mindfulness Questionnaire (FFMQ) to evaluate physician mindfulness, integrated with the PPCL (Patient's Perception of Patient Centeredness scale) used to assess patient interactions. The FFMQ measures physician mindfulness across five dimensions: observation, description, acting with awareness, non-judgment, and non-reactivity. The PPCL evaluates communication elements including hurried interactions, elicited concern, explanation of results, decision-making, interpersonal style, and perceived discrimination by physicians from patients' perspective. The study sampled 50 specialist orthopaedic physicians and 50 patient caregivers from a corporate hospital through convenience sampling. Data analysis included internal consistency checks, descriptive statistics, correlation analysis, and regression analysis using ANOVA and t-tests in MS Excel 2011. Our findings show the framework accounted for 49.77% of physician mindfulness variance. Regardless of experience, physicians exhibited mindfulness traits, except for non-judgment, observation, and acting with awareness. Patients reported hurried communication and poor interpersonal style, adversely affecting physician-patient relationships. Physicians showed reactive and judgmental communication, inadequately explaining diagnoses and treatments. Implementing mindfulness initiatives for physicians and staff may enable mindful clinical practice, enhancing patient care and satisfaction. This approach could establish physician-patient-centric disease management, transitioning from the existing patient-disease model.

Keywords: Mindfulness, Orthopedician, Patient care, Satisfaction.

Introduction

Indian Healthcare, propelled by a network of stakeholders dedicated to enhancing value across the chain and elevating the end-user experience, has emerged as a significant contributor to economic growth. It plays a crucial role in the nation's ambition to become the third-largest developed economy by 2047 (1). It was found that improvements in global standards, driven by an increase in disposable income, have enhanced both affordability and patient access to healthcare (2). This development has fuelled the growth and significance of the healthcare sector in developing countries like India, where healthcare solutions are available at half the cost compared to developed nations. Consequently, this has led to a rise in global medical tourism in India (3). Physicians play a crucial role in ensuring the health and well-being of society (4). India's healthcare system was complex, comprising a variety of providers practicing different systems of medicine and operating within a federal structure dominated by physicians (5). It is further indicated that physicians often assume leadership roles within their practice, regardless of their workplace, thereby creating opportunities for promoting good patient health (6). However, data from several countries suggest that junior-level health-care professionals, including residents, faculty, and trainees, are particularly at risk of experiencing mental health imbalances, which can lead to depression, anxiety, and substance abuse (7). Long working hours have been shown to be the primary cause of stress, depression, and burnout among physicians. This often leads to compromised patient interactions, as well as negatively affecting diagnosis and treatment outcomes, and deteriorating relationships with their colleagues (8). The findings suggest that among the various interventions available, mindfulness intervention has been the most

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beneficial for physicians, as it equips them with skills and tools to effectively manage their stress and burnout. Most studies on mindfulness interventions have been conducted in Western countries, with limited research and evidence from India, highlighting the need for data generation. To address this gap, we plan to conduct a survey of physicians in private practice to assess the impact of parental perception of physicians' mindfulness in their daily practice, using the Indian context as an example (9). It has been confirmed that demanding hospital work environments directly affect physicians' perceptions of care quality. Furthermore, inadequate care practices have increased job demands. We also emphasized the necessity for a deeper understanding of how workplace conditions for physician's impact job demands, well-being, and quality of care (10).

Their US national survey indicated a 60% reduction in physicians' consultation hours, as this time was allocated to maintaining patient files containing their information. Consequently, fewer patients were consulted each day, and the duration of individual consultations was shortened, leading to dissatisfaction not only among the physicians but also among the patients (11). Physicians are at an increased risk of anxiety and depression, primarily due to long working hours and various other contributing factors. Addressing this issue is crucial. Interventions are needed to prevent and screen for mental health disorders among physicians (12). The study identified a positive correlation between excessively long working hours and subjective somatic health complaints among hospital physicians (13).

Managing work hours has been shown to alleviate the impact of night shifts on sleep (14). Burnout among physicians has emerged as a major global issue in healthcare due to its detrimental effects on patient care and medical staff. The primary causes of burnout are high work stress and mental exhaustion. Physicians susceptible to burnout have been observed to commit medical errors, which ultimately affect patients (15). Burnout is described as a reaction to persistent workplace stress, characterized by three primary components: emotional exhaustion, depersonalization, and a reduced sense of personal achievement. Emotional exhaustion is one of the most evident symptoms, manifesting when physicians feel depleted and unable to meet the demands placed upon them by patients. This leads to feelings of detachment and a diminished capacity for empathy, affecting the physician's emotions and mental well-being. Depersonalization fosters a detached and cynical attitude toward patients, which undermines the quality of the doctor-patient relationship and contributes to career dissatisfaction, ultimately resulting in a diminished sense of personal accomplishment (16).

In addition to work stress and other external factors, a physician's upbringing, commitment, and stress tolerance can influence burnout (17). Significant workplace stressors include heavy workloads, extended hours, clerical tasks, Electronic Medical Records (EMRs), inefficient processes, hostile environments, and misaligned organizational objectives. Physicians face burnout from clerical work including patient records management and rotation scheduling, while struggling to balance heavy caseloads with deadlines and protocols. This pressure affects their health, leading to exhaustion. The increasing administrative workload, including EHR systems and insurance requirements, reduces time for patient care, causing frustration. Limited autonomy in decision-making due to institutional policies and productivity targets creates helplessness. Lack of peer support and professional growth opportunities diminish job satisfaction. The medical culture's emphasis on resilience makes it difficult for physicians to acknowledge stress and seek help, fearing professional repercussions. The hierarchical nature of medical institutions impedes mental health discussions. Work-life imbalance contributes significantly to burnout, particularly affecting physicians with family responsibilities, as limited time for personal life leads to unfulfillment. Lack of rest and social connections increases fatigue. Addressing burnout requires accurate identification and measurement before implementing appropriate solutions (18). In their research work categorized the preventive measures for burnout in two broad ways: individual or physician-focused, and organizational-focused, and suggested a combination of both for some situations. Individual-focused programs typically include behavioural strategies designed to address workplace challenges, often incorporating social

support, and various relaxation techniques such as self-care practices (19).

Mindfulness-based interventions (MBIs) improve healthcare worker (surgeon technician) patient care delivery, with strong evidence supporting enhanced care quality and moderate evidence for improved patient safety and outcomes. In surgery, mindfulness enhances goal awareness, reduces biases, helps identify ethical issues, and improves information processing (20). These benefits could improve orthopaedic surgeons' intraoperative decision-making. The growing interest in augmented reality (AR) for surgical accuracy indicates the field's openness to innovative performance-enhancing methods, potentially including mindfulness techniques (21). A recent University of Utah Mindfulness Center study demonstrated that mindfulness training enables self-transcendent experiences by helping individuals detach from internal thoughts (22). Physician surgeons who underwent mindfulness training showed increased decentering and self-transcendence compared to the active listening group. Those who better observed thoughts and emotions without reacting during meditation were more likely to experience self-transcendence (23). A recent study from the USA revealed that using a mindfulness-based mobile application among orthopedic residents over a two-month period led to significant reductions in stress, anxiety, and burnout scores. This finding supports the use of a mindfulness-based app as an effective intervention for alleviating stress, anxiety, and burnout in orthopedic residents. In spite of high patient load, paucity of time among physician point of view, these benefits were achieved with only moderate usage, suggesting that extensive mindfulness training programs may not be necessary for improving well-being (24). A pilot study investigating the Efficacy of an Abbreviated Mindfulness Intervention on Improving Performance in the Operating Room among 33 healthcare professionals indicated that a 25-minute mindfulness training on the benefits of mindfulness and how to utilize a brief, 4-minute mindfulness skill employed prior to each post-intervention surgery was associated with a significant increase in mindfulness, flow state and a significant decrease in perceived stress particularly during the complex routine cases thereby improving accuracy of operation with decrease of complications (25). 2.4 A Digital Mental Health Intervention in an Orthopaedic Setting for Patients with Symptoms of Depression and/or Anxiety has indicated that Delivery of a digital mental health intervention within the context of orthopedic care is feasible and has the potential to improve mental health and pain-related impairment to a clinically meaningful degree. Participants' engagement rates exceeded industry standards, and additional opportunities to improve recruitment and retention were identified (26). Physicians may derive significant benefits from the implementation of strategies such as mindfulness, stress management techniques, regular physical activity, and sufficient sleep. Establishing clear boundaries between professional and personal life, allocating time for hobbies or family engagements, and seeking professional counselling when necessary are essential measures in the prevention of burnout (27). The findings suggest that programs focusing on the work environment typically entail modifications to work procedures, task restructuring, and improvements in evaluation and supervision processes. These alterations aim to decrease job demands while enhancing job control and promoting increased participation in decision-making. Addressing physician burnout necessitates a comprehensive long-term strategy (28). The findings suggest that healthcare organizations should prioritize the well-being of their staff by investing in the development of a supportive environment that promotes work-life balance, professional development, and mental health (29). The text emphasizes that significant organizational modifications, such as enhancing leadership, fostering open communication, and alleviating administrative burdens, are essential. Equally important is institutional support to prevent burnout among physicians. Healthcare organizations should prioritize cultivating a culture of well-being, where physicians feel at ease discussing their challenges without fear of judgment. This includes providing mental health resources, minimizing unnecessary administrative tasks, and promoting work-life balance through flexible scheduling. Additionally, peer support groups and mentorship programs can foster a sense of camaraderie, thereby mitigating the feelings of isolation often associated with burnout (30). The findings

suggest that healthcare policies at both local and national levels should be reformed to incorporate financial incentives aimed at encouraging physicians to adopt mindfulness techniques. These changes are intended to mitigate burnout among healthcare professionals, thereby addressing the root causes and enhancing quality of life in both personal and professional domains (31). Mindfulness, from Buddhist traditions, involves present-moment awareness without judgment, focusing on stimuli and non-reactivity. Conceptual contradictions exist: some researchers emphasize meditation practice. Though mindfulness is measured via self-reports, assessment faces challenges due to lack of external referents (32). Mindfulness's Western adaptation has led to varied definitions (33), while others focus on current practice, the debates continue over terms like "attention" and "awareness" (34-36). Mindfulness interventions are widely used clinically, adapted for children (37) and diverse groups (38). Mindfulness helps close the gap between what we intend to do and what we actually do. It does this by improving focus and self-control, which reduces distractions from bad habits or thoughts (39). The FFMQ is a tool that measures how MBSR boosts mindfulness by looking at things like observing, describing, acting with awareness, not judging inner thoughts, and not reacting to them (40). Parts of the FFMQ, like acting with awareness and not reacting, can lead to stronger plans to be healthy. These plans are explained by TPB ideas like having a positive attitude, feeling less pressure from others, and having more control. Both online and in-person MBSR use TPB ideas (attitudes, norms, control) to help people start and stick with the program (41). While TPB offers a cognitive framework for understanding behavior, MBSR provides strategies for stress reduction. An integrative approach could potentially merge TPB's behavioural analysis with MBSR's emotional methodologies (42). Hence the selection of FFMQ scale as components of Mindfulness. While the theoretical benefits of mindfulness for physicians' professional performance, well-being, and patient outcomes are acknowledged, these associations have not been empirically investigated within the Indian context. This study seeks to assess parental perceptions of specialist physicians' mindfulness during consultations, specifically regarding the communication of diagnosis and dosage, as well as the quality of care provided to their child. We hypothesize that physicians exhibiting mindfulness will be correlated with superior interpersonal care quality. Based on the literature review, we propose the following framework for advancing the analysis, as depicted in Figure 1.

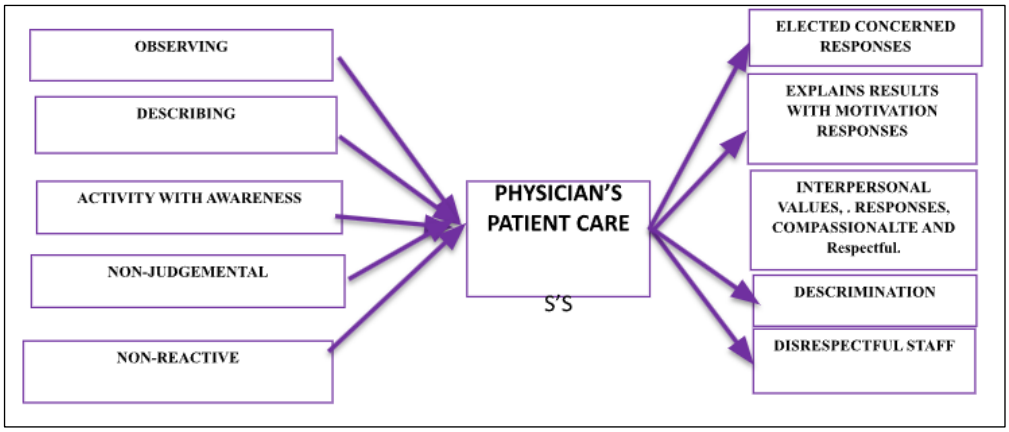

Figure 1: Frame Work

Methodology

We have selected a well-regarded corporate hospital in Hyderabad, Telangana, India, targeting all 50 orthopaedic specialist physicians through convenient sampling. These experienced specialists, with up to 20 years of practice, have opened their clinics to investigate the complexities of physician-patient interactions. The Five Facet Mindfulness Questionnaire (FFMQ), comprising 39 statements, has been administered to evaluate the physicians' mindfulness levels. This assessment evaluates component qualities such as observation, description, acting with awareness, a non-judgmental attitude, and non-reactivity, utilizing a 5-point Likert scale. In this scale, a score of 1 indicates "very rarely," while a score of 5

signifies "almost always true." Similarly, the PPCL general communication subscale is also based on a 5-point Likert scale, where a score of 1 denotes "always never," and a score of 5 denotes "always true." For reference, a sample questionnaire is attached at the end (Annexure -1 and 2). The data analysis for this study involved conducting descriptive statistics, followed by an examination of central tendency measures. This approach enabled us to understand the distribution, means, and standard deviation, and subsequently assess the internal consistency of the mindfulness scale. Correlation analysis was performed to identify significant relationships among the independent variables at significance levels of $p<0.05$ and $p<0.01$. This was followed by regression analysis for model testing and hypothesis evaluation. The analysis was conducted using Microsoft Tools.

The questions from the Personal Processes of Care Instrument were organized under individual headings to represent distinct variables. These questions were subsequently consolidated into an aggregate variable, as illustrated in Table 1 below, to facilitate the analysis.

Table 1: PPC Instrument Questions Break-Up

Variable	Hurried communication	Elicited Concerned Responses	Explained Results and Medication	Decision Making	Interpersonal style, compassionate respectful	Discrimination	Disrespectful staff
Q. No	1,2,3,19,20	21,22,23	24,25,26,27	28.29.30,31	32/33/34/35	36,37,38, 39	40,41,42,43

Results

In our research study, the questions from the Five Facet Mindfulness Questionnaire (FFMQ) represent the components of mindfulness, which constitute the foundational elements of an individual's independent variable. This variable encompasses the psychological states of observation, describing, acting with awareness, non-judgmental, and non-reactive attitudes, which are derived from neurological network connections that process information for judgment. The internal consistency test was conducted by calculating the Cronbach's Alpha value. Table 2 below presents the Cronbach's Alpha values for the entire questionnaire, which also includes the independent variable.

Table 2: Internal Consistency for All the Variables

Serial No	Sample Details	Cronbach Alpha
1	Physician's Responses FFMQ scale components.	0.82

According to the earlier reference, an item is deemed reliable if it has a Cronbach's alpha score greater than 0.6, is considered acceptable between 0.6 and 0.8, and has a corrected item-total correlation exceeding 0.3. Our Cronbach's value of 0.82 indicates the reliability and consistency of the questionnaire, suggesting that we can proceed with the next set of analyses using MS tools (20). Descriptive statistical analysis has been conducted to present the sample size characteristics through frequency tables and charts, as shown below.

Demographics Analysis demonstrates the location of physicians across various specialities, gender and experiences as all the physicians were from the same city. Figure 2 below depicts the physician's gender wise break-up, with respect to their participation indicated 60% male and 40% female Orthopedician in the study sample.

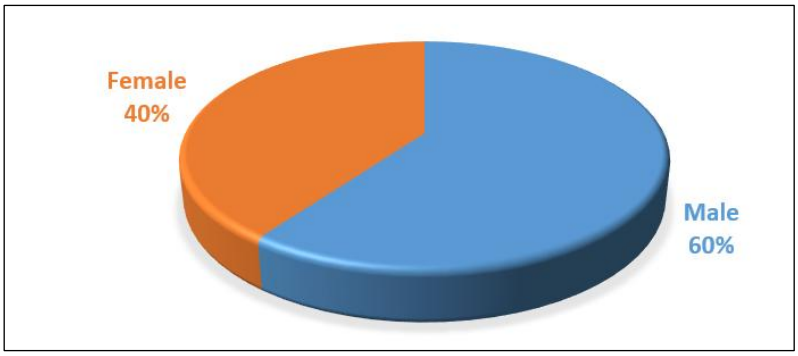

Figure 2: Orthopedician Gender Profile

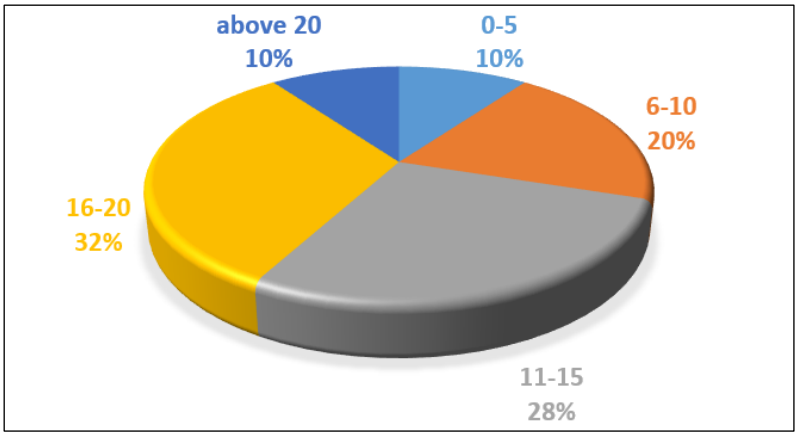

Figure 3: Orthopedician Experience Profile

Figure 3 below depicted the physician's experience profile analysis, indicating that 20% orthopaedic specialists have up to 5 years of experience, 32% of orthopaedic specialists have up to 10 years of experience and 28% of orthopaedic specialists have 16-20 years of experience and 20% of the orthopaedic specialists have more than 20 years of experience, that represented the study sample. As illustrated in Table 3 and 4 below, a correlation analysis was conducted, revealing a positive correlation among all the variables. This correlation is significant at both P<0.05 and P< 0.01, with r critical values of 0.196 and 0.256, respectively.

Table 3: Correlation Analysis between Variables

Observing	Describing	Acting with Awareness	Non - Judgemental	Non-Reactive
1				
0.13051	1			
0.19684	0.0968	1		
-0.07723	0.0903	0.3047	1	
0.09667	0.2838	0.1923	0.2065	1

Table 4: Correlation Significance along with Alpha and Critical R Value

Significance	Alpha	r Critical Value
*P<0.05	0.0500	0.196551196
**P<0.01	0.0100	0.256483452

Regression Analysis

Regression analysis is an inferential statistical tool used to evaluate the extent to which the variance in a dependent variable is attributable to an independent variable, either individually or collectively with other independent variables. In this research study, linear regression analysis was conducted to examine the impact and identify the most influential factors, focusing on the mindfulness of physicians concerning patient care quality, as represented by the PPLC dependent

variable. As illustrated in Table 5, the coefficients of determination, specifically *R*, *R*2, and R2 − Adj, are presented. When all independent variables are incorporated into the model, the value of R is 0.70, indicating a relationship between the independent and dependent variables. The R square is 0.4977, suggesting that 49.78% of the variation in the dependent variable is explained by these independent variables.

Table 5: Model Testing by Regression Statistics

Regression Statistics	
Multiple R	0.705512376
R Square	0.497747713
Adjusted R Square	0.399747267
Standard Error	0.122963689
Observations	50

Table 6 below, displays the results of the ANOVA test for the independent variables that exhibit a significant correlation with physician mindfulness. As demonstrated, with a P-value of 0.00019, it can be inferred that the F-statistic is significant at the 0.05 level. This result indicates that at least one factor related to physician mindfulness exerts a substantial influence on their clinical practice at the point of patient care.

Table 6: Test for Anova and Level of Significance

ANOVA	**df**	**SS**	**MS**	**F**	**Significance F**
Regression	8	0.614362891	0.076795	5.079035168	0.00019937
Residual	41	0.619922823	0.01512		
Total	49	1.234285714			

Hypothesis Testing has been carried out to assess the Impact of components of Mindfulness with respect to patient view using T-Test to find out the level of statistically significance.

Null Hypothesis 1: There is no impact of experience on the mindful state of physicians during their clinical practice.

Alternative Hypothesis 1a: There is an impact of experience on the mindful state of physicians during their clinical practice.

As shown in the below Table 7, information pertaining to expected values from the sample derived.

Table 7: Hypothesis Testing of Physician's Experience on Mindfulness

Physician Experience	**Coefficients**	**SE**	**t Stat**	**P-value**	**Lower 95%**	**Upper 95%**
Intercept	2.9441	0.3024	9.7364	0.0000	2.3335	3.5548
EXP	-0.0362	0.0183	-1.9781	0.0547	-0.0731	0.0008

The p-value of 0.054 is slightly above the threshold of 0.05, leading to the acceptance of the null hypothesis and the rejection of the alternative hypothesis. This suggests a marginal and very weak influence of orthopaedic specialists' mindfulness on their clinical practice. It can be concluded that mindfulness among orthopaedic specialists varies according to their level of experience. Therefore, it is essential to cultivate mindfulness across all age groups of orthopaedic specialists to ensure a balanced life and to provide optimal patient care during clinical practice.

Null Hypothesis 2: There is no impact of physician's nature of observing with a mindful state during their clinical Practice.

Alternative Hypothesis 2a: There is a impact of physician's nature of observing with a mindful state during their clinical Practice.

As shown in the below Table 8, information pertaining to expected values from the sample derived.

Table 8: Hypothesis Testing of Physician's Nature of Observation on Mindfulness

Physician's Nature of Observation	Coefficients	SE	t Stat	P-Value	Lower 95%	Upper 95%
Intercept	2.9441	0.3024	9.7364	0.000	2.3335	3.5548
Observing	0.103886762	0.04715	2.20324	0.033	0.009	0.199

The p-value of 0.033 is statistically significant, being less than the threshold of 0.05. Consequently, the null hypothesis is rejected in favour of the alternative hypothesis, indicating the presence of observational practices by physicians (Orthopedician) during their clinical practice. This finding underscores the necessity for further development of observational skills, which encompass mindfulness, among orthopaedic specialists of all ages. Such skills are essential for maintaining a balanced professional life while simultaneously providing optimal patient care during clinical practice.

Null Hypothesis 3: Physician's don't describe patients' challenges with them during their clinical practice.

Alternative Hypothesis 3a: Physician's describe patients challenge with them during their clinical practice.

As shown in the below Table 9, information pertaining to expected values from the sample derived.

Table 9: Hypothesis Testing of Physician's Describing Nature with Patients on Mindfulness

Physicians Describing Nature With Patients	Coefficients	SE	T Stat	P-Value	Lower 95%	Upper 95%
Intercept	2.9441	0.302	9.736	0.000	2.3335	3.5548
Describing	0.20	0.05	3.98	0.0002	0.10	0.30

The p-value of 0.0002 is statistically significant, being less than the threshold of 0.05. Consequently, the null hypothesis is rejected in favour of the alternative hypothesis, indicating that physicians acknowledge the challenges faced by patients during clinical practice. This finding underscores the necessity for orthopaedic specialists, across all age groups, to further develop the skill of articulating patient challenges through mindful observation. Such development is essential for maintaining a balanced professional life and providing optimal patient care during clinical practice.

Null Hypothesis 4: Physician's don't act with awareness with their patients during their clinical practice.

Alternative Hypothesis4a: Physician's act with awareness with their patients during their clinical practice.

As shown in the below Table 10, information pertaining to expected values from the sample derived.

Table 10: Hypothesis Testing of Physician's Act with Awareness and Its Impact on Mindfulness

Physicians act with awareness	Coefficients	SE	t Stat	P-Value	Lower 95%	Upper 95%
Intercept	2.9441	0.302	9.736	0.000	2.3335	3.5548
Acting with Awareness	-0.139975	0.045	-3.069	0.0037	-0.2320	-0.04787

The p-value of 0.0037 is statistically significant, being less than the threshold of 0.05. Consequently, the null hypothesis is rejected in favour of the alternative hypothesis, indicating that physicians demonstrate awareness in their interactions with patients during clinical practice. This finding suggests a potential need to further cultivate the skill of acting with awareness, a component of mindfulness, to effectively address patient challenges across all age groups of orthopaedic specialists. Such cultivation may contribute to a balanced professional life and enhance the quality of patient care during clinical practice.

Null Hypothesis 5: Physicians are not non-judgemental with patients during their clinical practice.

Alternative Hypothesis 5a: Physicians are non-judgemental with patients during their clinical practice.

Table 11: Hypothesis Testing of Physician's Non-Judgemental and Its Impact on Mindfulness

Physician's Non-Judgemental	Coefficients	SE	t Stat	P-Value	Lower 95%	Upper 95%
Intercept	2.9441	0.3024	9.7364	0.000	2.3335	3.5548
Non-Judgemental	-0.037229038	0.05342	-0.697	0.489765	-0.14510	0.070648456

As shown in the below Table 11, information pertaining to expected values from the sample derived.

The p-value is 0.489, which exceeds the threshold of 0.05, indicating a lack of statistical significance. Consequently, the null hypothesis is accepted, and the alternative hypothesis is rejected. This outcome suggests that physicians exhibit judgmental behaviour towards patients during clinical consultations. Therefore, it is essential for orthopaedic specialists of all ages to cultivate the skill of being non-judgmental. This ability is crucial for effectively addressing patient challenges, maintaining a balanced professional life, and providing optimal care during clinical practice.

Null Hypothesis 6: Physicians are not non-reactive with patients during their clinical practice.

Alternative Hypothesis 6a: Physicians are non-reactive with patients during their clinical practice.

As shown in the below Table 12, information pertaining to expected values from the sample derived.

Table 12: Hypothesis Testing of Physician's Non-Reactive Nature and Its Impact on Mindfulness

Physician's non-reactive nature	Coefficients	SE	t Stat	P-Value	Lower 95%	Upper 95%
Intercept	2.9441	0.3024	9.7364	0.000	2.3335	3.5548
Non-Reactive	-0.135473	0.0512	-2.644	0.01153	-0.23892	-0.032024

The p-value of 0.011 is statistically significant, being less than the threshold of 0.05. Consequently, the null hypothesis is rejected in favour of the alternative hypothesis, indicating that physicians exhibit reactive behaviour during patient consultations in their clinical practice. This finding suggests a potential need to cultivate the skill of non-reactivity among orthopaedic specialists of all ages to effectively address patient challenges, thereby ensuring a balanced professional life and delivering optimal care during clinical practice. Table 13, presented below, summaries of the findings of our study on the mindfulness state of specialist physicians during their interactions with patients in clinical practice.

Table 13: Summary of Physician's Mindfulness Component on Specialist Physician's Clinical Practice

Determinants of Mindfulness	Observing	Describing	Acting with Awareness	Non-Judgemental	Non-Reactive
Our Study Results	Yes	Yes	Yes	NO	Yes

Our study with specialist orthopaedic physicians showed that they follow most of the mindfulness guidelines. However, they struggle with being non-judgmental. To fix this, they should practice mindfulness exercises. This will help them fully follow mindfulness, including being non-judgmental. As a result, they can provide better care and improve health outcomes. Patients rated how mindful their doctors were. This was checked against parts of the PPLC scale which includes, rushed communication, rude staff, discrimination, interpersonal style and communication, decision-making, and explaining results and medication. The patients' views are shown in Table 14.

Our research study has brought-out the following observations with respect to Orthopedician.

- They did not rush when talking to patients. Instead, they were careful and explaining everything to the parents. They acted with awareness. However, they did not watch the patient closely. They often reacted to whatever the patients said and were judgmental in recommending medication based on their experience and discussions with colleagues. They showed mindfulness.

Table 14: Patients Experience of Measuring Physicians' Mindfulness

Patients Experience factor measuring Physician's Mindfulness	Mindfulness	Experience	Observing	Describing	Acting with Awareness	Non-Judgemental	Non-Reactive
Hurried Communication	0.001	0.042	0.999	0.000	0.004	0.774	0.169
	Significant	significant	NS	significant	Significant	NS	ns
Disrespectful staff	0.013	0.341	0.025	0.147	0.028	0.980	0.536
	Significant	NS	significant	NS	Significant	NS	NS
Discrimination	0.567	0.4350	0.4245	0.9534	0.6859	0.9456	0.8079
	NS	NS	NS	NS	NS	NS	NS
Interpersonal styles and communication	0.334	0.753	0.297	0.128	0.758	0.783	0.420
	NS	NS	NS	NS	NS	NS	NS
Decision Making	0.334	0.753	0.297	0.128	0.758	0.783	0.420
	NS	NS	NS	NS	NS	NS	NS
Explained results and Medication	0.893	0.293	0.958	0.906	0.523	0.937	0.551
	NS	NS	NS	NS	NS	NS	NS

- The staff exhibited mindfulness by observing and acting with awareness in their interactions with patients. However, while communication suggests that physicians generally adhere to most mindfulness parameters, they also display judgmental and reactive behaviours and struggle to clearly convey instructions to patients. This represents an area for improvement to enhance the quality of care provided by physicians.
- The interpersonal style and communication between physicians and patients were found to lack mindfulness, characterized by a reactive and judgmental nature. This approach, devoid of awareness and observation, and lacking descriptive communication from physicians to patients, can ultimately undermine patients' trust in their physicians. Consequently, this issue may adversely affect the quality of care, necessitating attention and improvement from both physicians and patients.
- Our study has demonstrated that the decision-making processes of physicians, as well as their communication to patients, do not appear to be influenced by factors such as mindfulness, experience, observation, acting with awareness, or a non-judgmental and non-reactive disposition.

Discussion

Based on the best available information, this study from India, involving specialist orthopaedic physicians from a corporate hospital in the private sector, sought to thoroughly understand physicians' mindfulness and its effect on patient care in clinical practice, aiming to enhance the experiences of both patients and their families through physician interaction. The proposed model explained 49.7% of the variance in the independent variable by the dependent variable, which was statistically significant at 0.0001993.

The research showed that specialist orthopaedics physicians exhibited mindfulness through their experience, characterized by patient observation, articulating patient challenges to families, acting with awareness, and maintaining non-reactivity despite other priorities. From the patients' perspective, the study further revealed that although these physicians displayed mindfulness, they tended to be judgmental. This tendency may stem from the physicians' prior clinical experience, patient load, and time constraints. The study identified areas for future improvement, such as addressing hurried communication by physicians, which may otherwise lead to missed information

gathering, thereby affecting the overall diagnosis and treatment process and compromising the improvement of patients' quality of life. This is possible with the introduction of mindfulness interventions. Although disrespectful behaviour from staff is commonly encountered, this study demonstrated that staff were respectful towards patients, a positive gesture that enhances the physician's reputation and increases patient footfall. Additionally, patients noted that a lack of physician observation during their briefing and acting without awareness could negatively impact the perceived quality of physician-patient interaction, leading to a poor point-of-care experience and affecting the quality of outcomes and patient satisfaction. Therefore, corrective measures in the form of training or workshops on mindfulness should be initiated to improve physicians' mindfulness and enhance the overall physician-patient interaction experience.

Conclusion

The research model accounts for 49.7% of the variance in the independent variables through the dependent variable. The study further reveals a marginal influence of specialist orthopaedic clinicians' experience on mindfulness, which is essential for maintaining the required intensity of care. The findings indicate that physicians exhibit qualities such as observation, acting with awareness, and non-judgment, which necessitate enhancement through mindfulness interventions to ensure full compliance with mindfulness practices. This includes fostering non-judgmental attitudes, thereby achieving equilibrium and improving service quality at the point of care, ultimately enhancing patient health outcomes. From the patients' perspective, physicians often engage in hurried communication and lack an interpersonal style, which affects the quality of interaction between physicians and patients. The interpersonal communication was found to be reactive and judgmental, lacking awareness and failing to adequately explain results to patients. This issue should be addressed by implementing mindfulness initiatives for both physicians and their assistants at regular intervals, with a structured evaluation framework to promote positive and memorable interactions between patients and physicians, thereby establishing a foundation for patient-centred disease management.

Scope and Limitations

Several limitations exist regarding mindfulness practices for Orthopedician in Indian corporate hospitals

- The study was conducted in a leading corporate hospital in Hyderabad, an urban setting. Similar research in corporate hospitals located in both urban and rural areas, or a combination of government and corporate hospitals with specialists in acute and chronic therapies, would significantly contribute to the field of mindfulness.
- The high-stress environment and perfectionism in healthcare settings challenge consistent adoption of mindfulness practices. Corporate hospitals' demanding schedules make it difficult for orthopedician to find time for meditation during work. There is limited rigorous research on mindfulness interventions specifically for orthopedicians in India with most studies focusing on general practitioners and nurses.
- The workplace environment presents challenges for mindfulness, with healthcare workers often using informal practice models instead of formal meditation. Additionally, barriers to long-term adoption include high dropout rates after initial training programs end. Sustaining practice requires ongoing support, which is challenging in efficiency-focused corporate hospitals.
- Conducting similar research studies involving specialists from multiple domains either working in similar corporate hospitals or pooling the same along with government hospitals will give deeper insights along with the intervention plan for implementation of promoting mindfulness practices among specialist physicians in the country.

Abbreviation

None.

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Author Contributions

All authors contributed equally upon the decided works in a definite timeframe.

Conflict of Interest

Nil.

Ethics Approval

We have explained the concept of Mindfulness to all the respondents before taking this response. After obtaining, their positive consent, questionnaire was administered for capturing their responses.

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