



Original Article

MODELING THE IMPACT OF WORKPLACE SPIRITUALITY AND EMOTIONAL INTELLIGENCE ON EMPLOYEE PERFORMANCE IN HEALTHCARE: A MULTI-GROUP SEM APPROACH

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ABSTRACT

The research paper is based on the data gathered among healthcare professionals in India to examine the connections between Workplace Spirituality (WS), Emotional Intelligence (EI), Organizational Citizenship Behavior (OCB), and Employee Performance (EP). Since distribution of the results collected on physicians and nurses is not normal and the conceptual model is complicated, Partial Least Squares Structural Equation Modeling (PLS-SEM) was used with SmartPLS 4 to approximate the structural paths. According to findings of structural model, WS has a positive impact on EP both directly and indirectly through OCB with stronger impact among physicians. Moreover, higher levels of WS are also linked to greater physician tendencies to produce OCB, and this effect is also influenced by the high levels of EI. Fornell-Larcker criterion was used to examine the discriminant validity of the constructs under each analytical group; the test resulted in the fact that the variables are unique to the other variables in the model." The hypothesis that physicians are more likely to react favorably to WS and EI regarding their behavioral and performance outcomes is confirmed by Multigroup analysis (MGA) results. The results highlight the central importance of the psychological characteristics in improving organizational performance and promote the use of individualized approaches towards the management of healthcare human resources. This study provides hints of the future development of the strategy of advancing the development of the healthcare organization by refining behavioral theory and giving practical insights into the mechanisms that work in the clinical environment.

Keywords: Workplace Spirituality, Emotional Intelligence, Organizational Citizenship Behavior, Employee Performance, Healthcare SEM

INTRODUCTION

In the recent past, psychological and behavioral constructions have received a lot of academic and practical attention in the field of healthcare provision. The empirical evidence has continuously shown that workplace spirituality (WS) and emotional intelligence (EI) are useful in determining the performance of the employees (EP) especially in an environment that requires the best outcomes such as in the hospitals [Nayak et al. \(2018\)](#). The widespread psychological pressures of the frontline health professionals, in the form of emotional, ethical and time pressure loads, highlights the significance of psychological competencies in sustaining professional efficacy. In many research works, the participation of religion at the work place is linked to increased motivation, positive affect, and

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higher performance, particularly by the way of such a mechanism as the organizational citizenship behaviour (OCB) [Padamata and Vangapandu \(2024\)](#). Nevertheless, the effects of WS, EI, and OCB on various healthcare workers are not studied fully. The study fills this gap by postulating the model to be used in the study of the relationships between WS, EI, and EP mediated with OCB in the Indian healthcare system. This is theoretically underpinned by the social-cognitive approach of [Basu et al. \(2017\)](#) which holds that beliefs, affective states and cognitions about situational demands determine behaviour in difficult circumstances. Furthermore, [Pradhan et al. \(2017\)](#) agree that strong emotional abilities increase self-regulation and interpersonal efficacy among heterogeneous groups [Balachandar et al. \(2023\)](#), which is certain to gain the relevant relevance due to the collaborative, empathetic, and discretionary nature of the healthcare field. It is further argued that EI also has an impact on WS through moderating the level of OCB engagement and this interpretation is consistent with "[Nayak et al. \(2015\)](#) conceptualisation of EI as a skill rather than a trait and thus justifies its applicability in mediating the relationship between personal spirituality and organisational needs. Thus, the hypothesis arises that EI bears the intensity of the WS-OCB relationship and as such, it will become essential in the context of optimising the performance in a healthcare atmosphere.

In order to answer the research questions, partial least squares structural equation modelling (PLS-SEM) will be used as it is more effective when data are not normally distributed [Agarwal \(2016\)](#). PLSSEM allows estimation of hierarchical constructs and formative-reflective measurement models to be estimated more easily than covariance-based SEM methods [Jain \(2022\)](#). The simplicity of EI, OCB, and WS in relation to another factor makes the idea of PLS-SEM an effective instrument in evaluating their overall impact on EP as suggested by [Singh et al. \(2023\)](#). Multi-group analysis (MGA) is additionally applied to investigate the difference in the structural relations between nurses and physicians [Patel et al. \(2024\)](#). This distinction is crucial since the two groups of professionals have distinct professional expectations, decision making processes and affective states, which underpin their respective expectation of behaviour manifestation of the psychological variables [Dubey et al. \(2024\)](#). The research follows stringent methods of validation to bring out construct reliability and validity. The issue of stability and convergent validity were assessed in all models of measurement by the Fornell-Larcker criterion and ratios of heterotrait-monotrait (HTMT) [Chahal and Mehta \(2013\)](#). Procedural remedies that were recommended were used to alleviate common method variance. The model includes both the mediation [Jaiswal and Raychaudhuri \(2021\)](#) and the moderation pathways as a result of the existing theoretical conventions. Operationalisation of OCB, EP and WS was done using established and psychometrically sound instruments." This methodological procedure is consistent with the appeals of [Malik \(2018\)](#) who are tasked to carry out studies that cover a wide span of behaviours that facilitate work performance in diverse, culturally different and emotionally charged work environments like healthcare.

METHODOLOGY

DATA ANALYSIS SOFTWARE

In the analysis of data, the study used SmartPLS 4, a software that is used to do the Partial Least Squares Structural Equation Modelling (PLS-SEM). SmartPLS is recognized to be easy to use, able to support a cover of model specifications, and has a high ability to handle the complex structural and measurement models [Biswas et al. \(2017\)](#). Through the software, researchers could analyze formative as well as the reflective constructs, determine mediating or moderating influences, and make a multi-group analysis (MGA). These qualities were very fundamental to the present study, as it focused on exploring the connection between workplace satisfaction (WS), emotional intelligence (EI), organizational citizenship behaviour (OCB) and employee performance (EP) among medical professionals. In addition, the bootstrapping and the use of blindfolds allowed checking on the relevance of the model and predictive power.

REASONS AS TO WHY PLS-SEM SHOULD BE USED ARE EXPLAINED.

The move to use PLS-SEM instead of traditional qualitative processes was arrived at due to the prudent evaluation of the data and analytical techniques at hand. The PLS-SEM will be recommended in the companies when the purpose of the research is to produce a model that would be used to predict and explain phenomena as opposed to testing a specific hypothesis [Ajmera and Jain \(2020\)](#). PLS-SEM was especially suitable since the current study was exploratory and sought to disclose the connections between abstract psychological concepts in healthcare. A range of higher-order sector items, such as multidimensional WS and EP, mediator and moderator function were also included in the research model. The PLS-SEM is designed to support this type of complexity in estimating measurement and structural elements at the same time, and without the strong restrictions of data distributions [Yadav \(2023\)](#). Furthermore, the data distributional features preferred the use of PLS-SEM to SEM by covariance. Primary diagnostics showed that a number of important indicators did not follow multivariate normal along with evidence of skewness and kurtosis. SEM maximum likelihood based is also based on normality, and current data did not fulfill this requirement [Murale et al. \(2015\)](#). On the contrary, bootstrapping methods used in PLS-SEM reduce the effects of missed optimal statistical conditions. In addition, the comparison of two intermediate-sized groups, that is, doctors and nurses, also gave an additional argument in favor of the choice of PLS-SEM [Prakash and Nandini \(2024\)](#).

SAMPLE AND DEMOGRAPHIC CHARACTERISTICS.

Fifty healthcare professionals were sampled in each of the cities of Delhi, Mumbai, Bengaluru, Kolkata and Hyderabad with a facility on the doctors and nurses. This purposive sample helped in relevancy in the study of the workplace psychological factors in a clinical setting. Only 481 participants out of the total population sent valid responses with 210 (43.66) being males and 271 (56.34) females. The majority of respondents were married and most of them were in mid-career phase; 47.8 percent of the people were in the 25 to 33 years bracket. Most physicians possessed MBBS (20.79) and the largest proportion of nurses had obtained either GNM (22.87) or ANM (16.63) degrees. With regards to professional experience, 31.19% of the respondents stated at least one or two years, 37.42% stated three to five years and 31.39% stated over five years of experience in the field. The distribution of income was 33.26 percent below INR 5 lakhs, 39.51 percent between INR 5 lakhs and 10 lakhs and 27.23 percent above 10 lakhs. This demographic heterogeneity increases the externalization of the findings between the different age groups and also boosts validity of comparisons across groups.

DESCRIPTIVE STATISTICS

Table 1 presents the descriptive statistics for the demographic characteristics of the respondents, offering a comprehensive view of the sample composition across key variables such as gender, marital status, age, educational background, job experience, and income level.

Table 1

Table 1 Descriptive Statistics			
Variable	Category	Frequency (O)	Percentage (%)
Gender	Male	210	43.66
	Female	271	56.34"
Marital Status	Single	180	37.42
	Married	301	62.58
Age	< 25 Years	120	24.95
	25-33 Years	230	47.82
	> 33 Years	131	27.23
Doctors	MBBS	100	20.79
	MD	90	18.71
	Others	51	10.6
Nurses	ANM	80	16.63
	GNM	110	22.87
	Others	50	10.4
Job Experience (in the present profession)	< 5 Years	150	31.19
	5-10 Years	180	37.42
	> 10 Years	151	31.39
Annual Income	< 5 Lakhs	160	33.26
	5-10 Lakhs	190	39.51
	> 10 Lakhs	131	27.23

Source: Author's Calculations

Gender wise, the fraction was fairly even with 56.34 per cent of the respondents considering themselves female and 43.66 per cent considering themselves male. This distribution means that there is a small overrepresentation of female professionals in the sample. On marital status, a big majority (62.5839) indicated that they were married, and 37.4269 indicated that they were single, which also is due to the professional maturity and the settled life stage of most of the participants. The age distribution indicates that the participants are mostly in the 25-33 years age bracket (47.82%), then older (33 years and above) (27.23%), and younger (24.95%), representing a high proportion of early and mid-career professionals. The table also differentiates the nurses and doctors based on the level of education. The proportion of doctors with an MBBS was 20.79%. In the case of nurses, 22.87% had been qualified with a GNM (General Nursing and Midwifery), 16.63% ANM (Auxiliary Nurse Midwife) and 10.4% had been categorised

under the other category and could perhaps include diplomas or other nursing qualifications. Regarding the level of job experience, 37.42% of respondents had five to ten years of experience, while 31.39% had more than ten years. On parameters of annual income, the highest percentage of respondents (39.51%) was recorded between five to ten lakhs, with 33.26 and 27.23 showing percentages of less than five and above ten lakhs respectively, which proves that the overall income of the respondents is upper-mid to high income. As a result, the sample is not homogenous, both in demographic and occupation, which contributes to the increased validity and applicability of findings related to the whole healthcare workforce.

STRUCTURAL MODEL EVALUATION

The support of physician and nursing sample was found in the analysis of H1 that was given as the positive impact of spirituality in the workplace (WS) to employee performance (EP). The standardized path coefficient however was significantly high among physicians ($t = 0.410$, $p < 0.001$) compared to nurses ($b = 0.328$, $t = 4.205$, $p < 0.001$). This evidence implies that spiritual involvement at work has more benefits in performance than physicians may get. More sensitivity to performance to such constructs as personal meaning, purpose, moral congruity with professional obligations could explain the greater coefficient of physicians. Conversely, even though the effect in nurses is still statistically significant, the relatively small coefficient can be taken as evidence that there are more workplace factors through which the WS-EP relationship is mediated or moderated.

Table 2

Hypotheses Testing Results for Doctors							
Hypothesis	Path	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistic	P Value	Supported
H1	WS → EI	0.41	0.408	0.082	5	0	Yes
H2	WS → OCB	0.465	0.462	0.09	5.167	0	Yes
H3	OCB → EI	0.502	0.498	0.095	5.284	0	Yes
H4	WS → OCB → EP (Indirect Effect)	0.233	0.23	0.056	4.161	0	Yes
H5	EI × WS → OCB	0.212	0.208	0.067	3.164	0.002	
Hypotheses Testing Results for Nurses							
Hypothesis	Path	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistic	P Value	Supported
H1	WS → EI	0.328	0.325	0.078	4.205	0	Yes
H2	WS → OCB	0.374	0.369	0.085	4.4	0	Yes
H3	OCB → EI	0.427	0.423	0.093	4.591	0	Yes
H4	WS → OCB → EP (Indirect Effect)	0.16	0.158	0.048	3.333	0.001	Yes
H5	EI × WS → OCB	0.14	0.138	0.059	2.373	0.018	Yes

Source: Author's Calculations

In one of the arguments, H2, that investigated the direct influence of spirituality in the workplace on the organizational citizenship behavior (OCB), the results were significant again between the two groups. The relationship between doctors ($\beta = 0.465$, $t = 5.167$, $p < 0.001$) and nurses ($\beta = 0.374$, $t = 4.400$, $p < 0.001$) was stronger; which means that discretionary and prosocial behaviors are more directly related with spiritual values at work among physicians. This can be explained by enhanced independence and accountability of physicians, which might enhance the effects of personal values and meaning to promote extra-role behaviors. Nurses also showed that there was an important relationship, but the coefficient was a little less and it may indicate the structural or role-based limitation of the display of OCB. H3 addressed the direct relationship between organizational citizenship behavior and the performance of employees. This relationship was established in the model among doctors and nurses. The coefficient of doctors, as in the previous directions, was larger ($\beta = 0.502$, $t = 5.284$, $p < 0.001$) than that of the nurses ($\beta = 0.427$, $t = 4.591$, $p < 0.001$). This is an indication that OCB has a more significant contribution to performance outcomes among physicians with an effect that this could be because of their higher individual responsibility and influence on patient outcomes. In the case of the nurses, OCB turns out

to be a positive predictor of performance but with institutional procedures and team work having a moderating effect. H4 investigated the mediation by OCB between work-related spirituality and individual employee performance. The indirect effect was also noteworthy on either group, but once again, more so with doctors ($\beta = 0.233$ $t = 4.161$ $p = 0.001$) than nurses ($\beta = 0.160$ $t = 3.333$ $p = 0.001$). This shows that there is a stronger relationship by which spiritual values can be used to improve performance through citizenship behaviors among physicians. The mediation effect indicates how the workplace spirituality can develop the prosocial behavior which subsequently enhances execution of tasks and commitment to work. This rather muted impact on nurses can indicate the presence of mutual influences of hierarchical patterns or job-specific demands that moderate the degree of conversion of OCB to performance. Lastly, H5 tested the moderating role of emotional intelligence (EI) in union between work spirituality and OCB. Interaction term was statistically significant in both groups, and again doctors had more significant effect ($\beta = 0.212$, $t = 3.164$, $p = 0.002$) than nurses ($\beta = 0.140$, $t = 2.373$, $p = 0.018$). This observation indicates that workplace spirituality has more positive impact on OCB in physicians through emotional intelligence. Doctors can use their emotional self-knowledge and compassion more tactfully in order to balance the religious principles they hold with interpersonal workplace practices. In nurses, though, the interaction is still of importance, yet of lesser strength it is possible to say that the effects of EI are in part buffered by the systemic factors, workload, shift patterns or even team dynamics.

DISCRIMINANT VALIDITY

Table 3 presents a model of the discriminant validity testing of the depending-measuring model in the subgroup of doctors and employs the FornellLarcker criterion as the major one. It is a criterion that measures construct distinctiveness stringently, saying that the square root of the Average Variance Extracted (AVE) of each construct (treated in bold italics) should be greater than the greatest correlation of that construct to any other latent variable in the model. This requirement holds that each construct measures unique variance which it does not share with other constructs and as such is a necessary condition to the empirically separability of the theoretical constructs.

Table 3

Table 3 Discriminant Validity (Fornell-Larcker Criterion) for Doctors

	AP	AL T	CV	CO MP	CO N	CP ER	CO UR	EI	EP	M W	MI ND	OC B	SA	SR	SO CA	SPO RT	TP	TRA NS	W S
Adaptive_Perfo rmance	0.8 52																		
Altruism_	0.0 09	0.8 57																	
Civic_Virtue_	0.0 21	0.0 9	0.8 75																
Compassion_	0.0 27	0.0 46	0.0 66	0.8 6															
Conscientiousn ess	0.0 76	0.0 57	0.0 37	0.0 35	0.7 93														
Contextual_Perf ormance	0.0 22	0.0 44	0.0 77	0.0 78	0.0 7	0.8 76													
Courtesy_	0.0 44	0.0 02	0.0 27	0.4 1	0.1 19	0.0 19	0.8 76												
Emotional Intelligence	0.0 37	0.3 7	0.0 32	0.0 21	0.1 2	0.0 05	0.5 27	0.7 6											
Employ Performance	0.0 37	0.0 37	0.0 74	0.0 77	0.0 64	0.5 97	0.0 24	0.0 13	0. 73										
Meaningful_Wo rk_	0.0 74	0.1 06	0.0 12	0.0 28	0.0 12	0.0 06	0.0 03	0.0 42	0. 4	0. 85									
Mindfulness_	0.0 55	0.0 06	0.1 37	0.0 63	0.0 34	0.0 67	0.0 71	0.0 65	0. 37	0. 2	0.8 98								
Organizational Citizenship Behaviour	0.0 39	0.2 57	0.0 39	0.0 35	0.8 44	0.0 46	0.5 75	0.6 19	0. 44	0. 45	0.0 61	0.8 3							
Self_Awareness	0.0 06	0.5 99	0.0 12	0.0 42	0.0 52	0.0 45	0.0 05	0.3 73	0. 51	0. 46	0.0 05	0.2 55	0. 86						
Self_Regulation	0.0 44	0.0 03	0.0 29	0.0 02	0.1 16	0.0 21	0.4 43	0.5 28	0. 03	0. 45	0.0 73	0.5 73	0. 01	0.8 76					

Social_Awareness	0.0 23	0.0 52	0.0 17	0.1 12	0.1 08	0.0 4	0.0 64	0.1 43	0. 05	0. 34	0.0 17	0.0 44	0. 05	0.0 65	0.9 07
Sportsmanship_	0.0 04	0.0 47	0.0 19	0.0 27	0.0 24	0.0 85	0.0 02	0.0 16	0. 08	0.0 54	0.0 11	0.1 45	0. 04	0.0 01	0.89 2
Task_Performance	0.0 35	0.0 97	0.0 22	0.0 15	0.0 87	0.0 59	0.0 66	0.1 04	0. 13	0.0 61	0.0 9	0.1 11	0. 09	0.0 66	0.8 66
Transcendence	0.0 29	0.0 85	0.0 94	0.0 23	0.0 69	0.0 3	0.0 23	0.0 06	0. 04	0.0 44	0.0 24	0.0 64	0. 08	0.0 25	0.01 9
Workplace_Spirituality	0.0 86	0.0 71	0.0 67	0.1 21	0.0 25	0.0 46	0.0 41	0.0 7	0. 04	0.0 61	0.6 65	0.0 57	0. 07	0.0 42	0.11 81

Source: Author's Calculations

The current model sees Employee Performance (EP) with a square root Mean of 0.73 that means that the latent construct explained 73 percent of the variance among the indicators. Significantly, the estimate in question is higher than the correlation of EP with the other constructs, including Emotional Intelligence (0.024) and Organizational Citizenship Behaviour (0.044) and Workplace Spirituality (0.061), which implies that EP is operationalised and does not manifest a significant cross-over across the measures of other constructs. This kind of separation is necessary because performance outcomes and behavioural predictor conceptually are close enough to ensure that the measure of EP grounds on a distinct domain of employee effectiveness. The seniordate construct of Organizational Citizenship Behaviour (OCB) indicates a square root AVE of 0.83, which is quite vigorous given the multidimensionality of OCB and its theoretical overlap with other associated constructs used to characterize the same, including Emotional Intelligence and Workplace Spirituality. Although they are moderated correlates of Emotional Intelligence (0.575) and Workplace Spirituality (0.665), OCB still has adequate empirical disaggregation. Since OCB wraps up personal behaviours and is not similar to the emotional understanding of the employees and the spiritual committed work that staffs undertake, it is a specialised area of organisational performance.

Emotional Intelligence (EI) shows a square root AVE of 0.76, more than those of Workplace Spirituality (0.61) and Organizational Citizenship Behaviour (0.575), which helps to prove the discriminant validity. As a group of special emotional abilities, EI affects the relations considered in the model differently. The Spirituality of the Workplace (WS) has the square root AVE of 0.81 which is justified as an empirical phenomenon that is different with OCB and EI although it is moderately theoretically and empirically linked (0.665 with OCB and 0.61 with EI). This also underlies the idea workplace motivation has a unique nature and is more closely attached to personal experiences rather than coexisting behavioural or affective states. Fornell Larcker criterion was used to evaluate the discriminant validity among the sample of nurses by evaluating the similarity of latent constructs in the measurement model. According to the criterion, in both constructs, the diagonal square root AVE should be higher than any other inter-construct correlation, which ensures a statistical uniqueness.

Table 4

Table 4 Discriminant Validity (Fornell-Larcker Criterion) for Nurses

	AP	AL T	CV	CO MP	CO N	CP ER	CO UR	EI	EP	M W	MI ND	OC B	SA	SR	SO CA	SP OR T	TP	TR AN S	W S
Adaptive_Performance	0. 87																		
Altruism_	0.0 08	0.7 88																	
Civic_Virtue_	0.0 87	0.0 1	0.8 05																
Compassion_	0.0 96	0.0 31	0.0 29	0.7 36															
Conscientiousness	0.0 44	0.0 34	0.0 99	0.0 36	0.7 78														
Contextual_Performance	0.0 4	0.0 2	0.0 85	0.0 57	0.0 83	0.7 42													
Courtesy_	0.0 08	0.1 01	0.0 24	0.0 18	0.0 35	0.0 41	0.8 33												
Emotional_Intelligence	0.0 01	0.4 98	0.0 01	0.0 08	0.0 2	0.0 16	0.5 74	0.7 13											

Employ Performance	0.1 28	0.0 2	0.0 93	0.0 66	0.0 79	0.5 96	0.0 01	0.0 14	0.7 27											
Meaningful_Work_	0.0 51	0.0 29	0.0 67	0.0 51	0.1 09	0.1 31	0.0 7	0.0 32	0.1 35	0.8 35										
Mindfulness_	0.0 06	0.0 1	0.0 1	0.1 03	0.0 05	0.0 01	0.0 16	0.0 28	0.0 01	0.1 61	0.7 4									
Organizational Citizenship Behaviour	0.0 57	0.1 4	0.0 71	0.0 59	0.4 12	0.0 56	0.2 73	0.2 96	0.0 51	0.1 18	0.0 71	0. 72								
Self_Awareness	0.0 07	0.5 99	0.0 07	0.0 33	0.0 36	0.0 2	0.1 03	0.5 2	0.0 29	0.0 13	0.1 38	0.7 88								
Self_Regulation	0.0 1	0.0 98	0.0 25	0.0 17	0.0 3	0.0 05	0.9 99	0.4 73	0.0 36	0.0 65	0.0 19	0.2 65	0.1 01	0.7 72						
Social_Awareness	0.0 16	0.0 13	0.0 71	0.0 3	0.0 4	0.0 43	0.0 94	0.3 36	0.0 42	0.0 32	0.0 31	0.0 93	0.0 12	0.0 91	0.7 29					
Sportsmanship_	0.0 4	0.0 42	0.0 42	0.0 52	0.1 1	0.0 7	0.0 15	0.0 42	0.0 04	0.1 6	0.4 07	0.0 23	0.0 41	0.0 9	0.0 65	0.7 85				
Task_Performance	0.0 17	0.0 38	0.0 74	0.0 87	0.0 24	0.0 32	0.1 14	0.0 62	0.0 52	0.0 85	0.0 35	0.0 01	0.1 37	0.0 15	0.0 61	0.0 17	0.7 86			
Transcendence_	0.0 41	0.0 62	0.2 44	0.0 18	0.1 03	0.0 92	0.0 87	0.0 73	0.0 94	0.0 69	0.1 57	0.0 17	0.0 61	0.0 83	0.0 75	0.4 48	0.7 97			
Workplace Spirituality	0.0 2	0.0 41	0.0 28	0.1 08	0.0 92	0.0 43	0.0 12	0.0 22	0.0 45	0.6 62	0.5 9	0.0 22	0.0 42	0.0 02	0.0 15	0.4 51	0.3 7	0.4 31	0. 7	6

Source: Author's Calculations

The square root AVE of Organizational Citizenship Behaviour (OCB) construct takes the value of 0.71 and hence discriminant validity is supported despite moderate values with other related constructs like Emotional Intelligence (0.574) and Workplace Spirituality (0.590). This balancing makes OCB unique in its ability to capture discretionary organisational behaviours but it concedes that it is conceptually close to the emotional and spiritual variables of the workplace. Emotional Intelligence (EI) shows a square root AVE of 0.713 which surpasses its correlations with Workplace Spirituality 0.662 and OCB (0.574), hence empirically differentiating it. The emotional competencies measured with the help of EI are therefore conceptually and statistically different in the context under consideration with corresponding constructs.

In the case of Workplace Spirituality (WS), AVE square root is 0.760, ahead of the others of Emotional Intelligence (0.662), OCB (0.590), and Employee Performance (0.431). The observation supports WS as a discrete variable in its ability to represent distinct motivational and experience aspects that happen in the nursing field. On the sub-construct space, there is a square root AVE of 1.0 or greater on Compassion (0.736), Civic Virtue (0.805), Self-awareness (0.788) and Mindfulness (0.740). These outcomes confirm the multidimensional reflective measurement method and the contribution that each sub-dimension makes in his or her own higher-order construct.

Therefore, the discriminant validity test proves that the constructs in the subgroup of nurses still have enough empirical differences despite the overlaps in the concepts. The Fornell-larcker findings can be well supported to explore the fact that every latent variable and its dimension are being quantified as definite entities and hence retain the integrity of the measurement model. This research methodology justifies the validity of further structural model analysis and explanation of causality of relationships in the nursing setting.

MULTI-GROUP ANALYSIS (MGA)

This part gives the outcome of Multi-Group Analysis (MGA). The current paper used MGA to examine any possible variations in the role of workplace spirituality, emotional intelligence and organizational citizenship behavior in the performance of employees operating in two related professional groups including physicians and nurses in the health care industry. This kind of differentiation is necessary since the two groups often interact in different positions, duties, and labor environments, which could influence how the psychological and organizational constructs influence the work performance of the two. Through MGA, the research problem is to understand whether there is significant variation in the level of these relationships between physicians and nurses and thus contributor to more insight on professional boundary operation of the workplace dynamics. Such a comparative methodology not only enhances the theoretical framework allowing to test the applicability of the theory to a group of people, but also provides some practical information on what healthcare management can do to employ interventions that are relevant to the particular needs of a

group. The analysis makes sure that the constructs are equally measured in different groups which in turn proves that any difference in path strengths that might be experienced is significant and not a methodological artifact.

Hypothesis 6 assumes that workplace spirituality (WS) impacts on employee performance (EP) stronger in physicians than in nurses. This claim is supported by the MGA results: the path coefficient of physicians (= 0.41) is a bigger number than the path coefficient of nurses (= 0.328). The difference between the scores is statistically significant ($t = 2.314$), which proves the fact that spirituality in the workplace has a greater effect on performance improvement among physicians. The implication of this finding is that spiritual involvement and core orientation by physicians to workplace ideals are more connective to their professional performance, which may have been because doctors operate in autonomous and decision-intensive environments.

Table 5

Table 5 Multi-Group Analysis (MGA)						
Hypothesis	Path	Doctors (Original Sample)	Nurses (Original Sample)	Original Sample Diff	t-Stat.	Supported
H6	Direct effect (WS → EP)	0.41	0.328	0.082	2.314	Yes
H7a-H7b	Mediation (WS → OCB → EP)	0.233	0.16	0.073	2.189	Yes
H8	Moderation (EI × WS → OCB)	0.212	0.14	0.072	2.017	Yes

Source: Author's Calculations

The exploratory research hypotheses 7a and 7b examined the mediating role of the organizational citizenship behavior (OCB) on the association between work place spirituality (WS) and employee performance (EP) among the physicians and nurses respectively. The significant effects were found to be indirect, and multigroup analysis (MGA) indicated stronger effects of each of the two groups of occupations with a greater mediating coefficient being that of physicians (0.233) as opposed to nurses (0.160). The statistical difference that ensues ($t=2.189$) suggests that the mechanism through which WS promotes performance through prosocial behaviors has a more pronounced impact on physicians, which may be explained by the larger discretionary latitude that physicians have to translate personal values into OCB. Hypothesis 8 was: emotional intelligence (EI) as a moderator of the WS-OCB association, under which the influence of this moderator is stronger in physicians compared to nurses. This claim is supported by the results of MGA, which indicate the physicians (0.212) have a large interaction coefficient as compared to that of nurses (0.140) with a significant t-value of 2.017. Such a tendency implies that EI can better enhance the beneficial role of spirituality in citizen behaviors among doctors, which can be presumably explained by the more sophisticated emotional regulation abilities and the overall advanced level of interpersonal complexity of their job. The R 2 values of the models give the percentage of the variance in EP that the predictor variables account at each subgroup. In the present analysis, the physician model identifies about 64.5 percent change in physicians that explains EP compared to the model used in nurses that identifies about 56.4 percent change in nurses. This difference also means that the interaction of WS, EI, and OCB would be a stronger predictor of the performance of the physicians compared to nurses. These results are consistent with the general theoretical hypothesis that psychological and behavioral characteristics are more closely linked to medical outcomes with regards to health. Although they are generally more willing to select their work performance based on aspects like spirituality and EI, physicians that generally have a higher degree of professional freedom and face a stronger degree of personal responsibility with regard to clinical decision-making. Although these constructs are still effective in influencing nurses, their impact is still reduced in relative terms. Though still quite explanatory to a nurse, the dramatically smaller R 2 means that there are other determinants (including interprofessional teamwork, scheduling arrangements, and organizational policies) which can have a strong impact on the performance of nurses. In turn, these contextual variables should be taken into consideration when modeling this sub-group. These findings support the fact that organizational policies specific to the unique occupational settings of physicians and nurses need to be implemented. Through recognizing the special circumstances each group faces, the intervention can be developed to positively utilize the spirituality, emotional intelligence, and citizenship behaviors so that the overall results of the employees can be improved among the healthcare workforce.

DISCUSSION

This study indicates that Workplace Spirituality (WS), Emotional Intelligence (EI), Organizational Citizenship Behavior (OCB) and Employee Performance (EP) have a linkage in Indian healthcare organizations. According to the empirical data, WS has a positive effect on EP, which implies that the sense of purpose and motivation are significant predictors of high job performance [Mallick et al. \(2019\)](#). This observation is consistent with the social cognitive theory by [Singh et al. \(2024\)](#), who declares that what matters to people are their beliefs and internal affective states that define the choices that people make in relatively complicated social

situations. A strong spiritual commitment to a healthcare profession frequently leads to an increased level of empathy, patience, and sensitivity to ethics, which are also required to be the best clinical practitioners [Dhal and Mohapatra \(2024\)](#). As the connection between the physicians and the spiritual engagement is strengthened, organizational entities are bound to achieve better results, achieving greater autonomy and positive spiritual results [Dutraj and Sengupta \(2024\)](#).

OCB turned out to be a salient mediator of the relationship between WS and EP in two professional cohorts, but mediating a stronger impact was noted in a group of physicians. This observation is consistent with existing literature that views OCB as a mentalization of the company values and prosocial motivation that is expressed in the form of behavior [Karthik and Devi \(2023\)](#). The higher path coefficients among physicians could be due to their higher discretion of role that allows them to openly express OCBs like altruism, conscientiousness and civic virtues unlike the nursing staff that have more structured routines [Kabra \(2023\)](#). Besides, the mediation highlights how performance improvements may occur as a result of increased task motivation but also through the development of contextual and adaptive behaviors which enhance team functionality and organizational performance, following WS [Padamata and Vangapandu \(2024\)](#). In turn, the paper reaffirms the need to carry out examinations of OCB in a more contextually relevant and specific area, including non-Western, emotionally demanding, and healthcare settings [Basu et al. \(2017\)](#).

Moderation of EI was a factor that greatly intensified the correlation that existed between WS and OCB, especially among the physicians. This finding is striking with the EI model by [Pradhan et al. \(2017\)](#) who describe emotional intelligence as a skill that influences how people receive and cope with emotional reactions in social contexts. Emotionally charged hospital settings require more spiritually oriented professionals with elevated EI since they have better chances to transfer their spiritual values into kind and positive behaviors. [Balachandar et al. \(2023\)](#) also asserted that EI which is particularly self-awareness and empathy may enhance the salience of even deeper values at the workplace such as purpose and meaning, an opinion that this interaction effect supports. [Nayak et al. \(2015\)](#) have highlighted the importance of EI to reinforce leadership, collaboration, and interpersonal effectiveness, as all these are key components of OCB and EP in medical settings.

PLS- Structural Equation Modeling (PLS -SEM) was considered to be the most appropriate approach to work with the data in this study. Since the model has many complex constructs, there was need to have a flexible, but a strong statistical model. PLS-SEM is beneficial with research information that are off of the assumptions of multivariate normality, as explained by [Jain \(2022\)](#). It made the strong outcomes especially salient with the small sample size and the common skewness in the data [Singh et al. \(2023\)](#). We also used the applications of discriminant validity testing using the FornellLarcker standard and HeterotraitMonotrait Ratio (HTMT), according to the recommendations of [Patel et al. \(2024\)](#), and Multigroup Analysis (MGA) to compare physician and nursing subgroups. Methodological rigor was followed within the primary and statistical standards that were outlined by [Dubey et al. \(2024\)](#).

This study can add value to the field of organizational psychology since it shows results that are of practical use to health organizations in most of the emerging economies. The research satisfies the request of [Jaiswal and Raychaudhuri \(2021\)](#) on combination research studies that have interrelated leadership, emotional intelligence, and spirituality and performance in various cultural contexts. The insights gained can make an impact on the human resource practitioners and the hospital administrators. A differentiated intervention based on the needs of physicians and nurses can be essential in the development of an intervention to promote spirituality and EI in the workplace. More so, the findings provide a basis in the future on case studies and theoretically-based research to challenge the role of non-technical competencies on service quality and employee satisfaction. Having such competencies integrated into performance systems has the prospective of improving patient outcomes and at the same time improving individual performance.

CONCLUSION

The current paper contributes to the understanding of the interdependence of work satisfaction (WS), emotional intelligence (EI), organizational citizenship behavior (OCB), and employee performance (EP) in the healthcare context. The results assist in proving that the hypothesis that WS has direct positive impact on EP is positive, and WS can also be mediated by the related construct OCB. The scale of such an influence is more impressive among physicians than other professionals cohorts, a fact that can be explained by the fact that physicians have more autonomy in clinical decision making. Moreover, EI seems to provide the relationship of WS-OCB particularly with a focus on physicians and thus reinforce the centrality of emotional competencies in leveraging spiritual values to encourage workplace well-being. These findings support the view of the need to customize human-resource intervention to specific professional roles in healthcare by providing arguments to develop spiritual and emotionally intelligent qualities in physicians and offer structural supports to nursing staff. Since the conducted investigation used serious methodology and met the requirement of the best recommended practices, those outcomes are considered solid evidence. Finally, the study leads to the list of contributions to the literature as the principal pathways of how psychological and behavioural variables play out in influencing performance in the complex, affective and ethical, work-related setting like the healthcare industry.

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