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Job Satisfaction, Work Engagement, and Organizational Citizenship Behavior among Preschool Teachers: Mediating Mechanisms

学前教师的工作满意度、工作投入与组织公民行为：中介机制研究

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Abstract:

Preschool education constitutes the foundation of children's academic and socio-emotional development, and preschool teachers play a critical role in shaping these early learning experiences. This study investigates the relationships between Job Satisfaction (JS), Work Engagement (WE), and Organizational Citizenship Behavior (OCB) among preschool teachers, with particular attention to underlying mediating mechanisms. A total of 408 preschool teachers participated in a questionnaire survey. The instrument demonstrated strong content validity and excellent internal consistency (Cronbach's $\alpha = 0.962$). Structural Equation Modeling (SEM) was employed to assess the overall model fit and to estimate the direct and indirect effects among the constructs. In the proposed model, OCB is specified as the outcome variable, JS as the primary antecedent, and WE, Psychological Empowerment (PE), and Emotional Intelligence (EI) as key

Keywords:

job satisfaction (JS); work engagement (WE); organizational citizenship behavior (OCB); preschool teachers (PSTs); psychological empowerment (PE); emotional intelligence (EI); mediating mechanisms; teacher motivation).

关键词：

工作满意度 (JS)；工作投入 (WE)；
组织公民行为 (OCB)；学前教师(PSTs)；
心理授权 (PE)；情绪智力(EI)；
中介机制；教师动机。



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mediators. JS exerted substantial positive effects on WE ($\beta = 0.621$), PE ($\beta = 0.538$), and EI ($\beta = 0.492$). In turn, WE ($\beta = 0.683$), PE ($\beta = 0.318$), and EI ($\beta = 0.294$) significantly predicted OCB. Indirect effect estimates confirmed the mediating roles of WE, PE, and EI in the relationship between JS and OCB. The findings underscore the centrality of JS and the importance of enhancing WE, PE, and EI to foster positive discretionary behaviors among preschool teachers and to strengthen organizational functioning in early childhood education settings.

摘要：

学前教育是儿童学业发展和社会情感发展的重要基础，学前教师在塑造儿童早期学习经验中发挥着关键作用。本研究考察学前教师工作满意度（Job Satisfaction, JS）、工作投入（Work Engagement, WE）与组织公民行为（Organizational Citizenship Behavior, OCB）之间的关系，特别关注其中的中介机制。共有408名学前教师参加了问卷调查。量表工具具有较强的内容效度，内部一致性良好（Cronbach's $\alpha = 0.962$ ）。研究采用结构方程模型（Structural Equation Modeling, SEM）检验整体模型拟合度，并估计各潜在变量之间的直接效应和间接效应。在所提出的模型中，OCB被设定为结果变量，JS为主要前因变量，而WE、心理授权（Psychological Empowerment, PE）与情绪智力（Emotional Intelligence, EI）为关键中介变量。结果表明，JS对WE（ $\beta = 0.621$ ）、PE（ $\beta = 0.538$ ）和EI（ $\beta = 0.492$ ）均具有显著正向影响；同时，WE（ $\beta = 0.683$ ）、PE（ $\beta = 0.318$ ）和EI（ $\beta = 0.294$ ）显著正向预测OCB。间接效应分析进一步证实了WE、PE与EI在JS与OCB关系中的中介作用。研究结果凸显了工作满意度在学前教师组织公民行为形成中的核心地位，并表明提升教师的工作投入、心理授权和情绪智力对于促进其积极自主行为、加强学前教育机构的组织运作具有重要意义。

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1. Introduction

Preschool education is a core component of basic education and represents the starting point of the formal educational trajectory. Often referred to as pre-kindergarten, it supports holistic child development by fostering physical, cognitive, emotional, and social growth in children aged three to five years [1]. Within this context, preschool teachers are central agents in promoting high-quality learning and care, making their work attitudes and behaviors critical for both child outcomes and institutional effectiveness.

Employee Job Satisfaction (JS) has long been recognized as one of the most important determinants of organizational stability and performance. JS is typically conceptualized as an individual's evaluative judgment of their job experiences, including perceptions of their role, organizational procedures, work environment, and relationships with colleagues [2]. It reflects a pleasurable emotional state resulting

from the appraisal of one's job in relation to personal values and goals. Drawing on social exchange theory, employees who experience higher JS are more likely to reciprocate by investing greater effort and commitment in their work, thus contributing positively to the organization [3].

JS can be examined at both global and facet levels. Global, or general, JS captures an individual's overall sense of fulfillment with their job, whereas facet-specific JS concerns satisfaction with particular aspects such as pay, supervision, workload, or professional development opportunities [4]. Understanding both levels is essential in educational settings, where structural constraints and emotional demands coexist with intrinsic rewards such as meaningful interaction with children.

Work Engagement (WE) is another key construct in explaining positive extra-role behaviors such as OCB. WE is commonly described as a positive, fulfilling, work-related state of mind characterized by

vigor, dedication, and absorption. Engaged employees tend to be energetic, enthusiastic, and mentally resilient, investing substantial effort and sustained concentration in their tasks [5]. In educational contexts, teachers' WE has been linked to enhanced instructional quality, student outcomes, and teacher well-being. WE has implications not only for performance but also for socio-emotional functioning, motivation, and long-term retention in the profession [6].

In preschool settings, children's developmental outcomes are often used as core indicators of the quality of teachers' professional competencies and the success of preschool education reforms. Language-focused activities in kindergarten, for instance, are central instructional processes that shape children's early literacy and communication skills [7]. International evidence suggests that participation in high-quality early childhood education is associated with better receptive vocabulary, language skills, and early reading abilities [8]. These outcomes are, in turn, strongly influenced by teachers' instructional behaviors, emotional climate, and willingness to go beyond formal role requirements.

At the same time, preschool teachers (KTs/PSTs) frequently provide intensive emotional care and support, which may increase their vulnerability to emotional exhaustion and identity strain [9]. Emotional Intelligence (EI) is therefore a crucial resource for teachers, particularly in rural or resource-constrained settings. EI encompasses the ability to perceive, understand, regulate, and utilize emotions effectively, and is closely associated with adaptive emotional labor strategies and self-efficacy. For early childhood teachers, emotional self-regulation is linked not only to their physical and mental health but also to their career development and sustained effectiveness [10].

Organizational Citizenship Behavior (OCB) refers to discretionary, extra-role actions that are not formally required by the job description but contribute to the effective functioning of the organization. Classic conceptualizations identify several dimensions of OCB, including conscientiousness (duty), sportsmanship, courtesy, altruism, and civic virtue [11]. In preschool contexts, OCB may manifest as voluntarily supporting colleagues, investing additional time in preparing learning materials, or engaging in school-wide initiatives that enhance the learning environment.

Preschool teachers often operate under considerable emotional and cognitive demands, yet there remains a relative paucity of empirical work examining how their JS translates into beneficial organizational behaviors such as OCB. In particular, the complex interplay among JS, WE, Psychological Empowerment (PE), and EI in predicting OCB is not fully understood. PE reflects the extent to which teachers experience meaning, competence, self-determination, and impact in their work roles; EI shapes how they manage emotional demands; and WE captures

their motivational and energetic investment in their tasks. Clarifying how these constructs function as mediating mechanisms is essential for designing targeted interventions to improve professional performance and well-being in preschool settings.

Despite the critical role of preschool teachers in early childhood education, limited research has systematically examined how their job satisfaction influences discretionary workplace behaviors such as Organizational Citizenship Behavior (OCB). Although constructs such as Work Engagement (WE), Psychological Empowerment (PE), and Emotional Intelligence (EI) have been shown to affect teacher performance and well-being, the specific pathways through which these variables mediate the relationship between Job Satisfaction (JS) and OCB remain under-explored. This knowledge gap constrains the development of evidence-based strategies to foster positive organizational behaviors and to strengthen the overall quality of preschool education.

The present study addresses this gap by examining the relationships among JS, WE, and OCB in preschool teachers (PSTs), with a particular focus on identifying and quantifying the mediating roles of WE, PE, and EI.

The remainder of this article is organized as follows. Section 2 reviews prior research on JS, WE, EI, PE, and OCB in educational and preschool contexts. Section 3 presents the theoretical framework and hypothesis development. Section 4 describes the methodology, including sampling, instrumentation, and data analysis procedures. Section 5 reports the empirical results, with an emphasis on the mediating mechanisms. Section 6 discusses the implications, limitations, and directions for future research, and Section 7 offers concluding remarks.

2. Related Works

A growing body of literature has examined the determinants and consequences of JS, WE, EI, PE, and OCB among teachers and early childhood educators. Table 1 summarizes selected empirical studies that are directly relevant to organizational behavior and teacher motivation in preschool or comparable educational settings. For each study, the table outlines the research context, methodological approach, key findings, and main strengths and limitations in relation to the constructs of interest.

For example, the study in [12] employed covariance-based Structural Equation Modeling (CB-SEM) on a large sample of public kindergarten teachers, generating robust evidence on the importance of pay equity and organizational support for JS and OCB. However, its focus on public institutions may limit the generalizability of its findings to private or mixed-funding preschool contexts. The investigation in

[13] utilized correlation and mediation analyses to demonstrate JS as a mediator between work conditions and teacher outcomes, yet its rural, region-specific sample and reliance on self-reported data constrain broader applicability. Similarly, the work in [14]

proposed a serial mediation model linking work–family conflict to organizational commitment, offering insights into the interplay between personal and professional domains, but it did not explicitly model the role of income in turnover intentions and was subject to recall bias.

Table 1. Summary of related studies on job satisfaction, work engagement, and OCB in preschool teachers

Reference	Methods Used	Dataset	Performance Metrics	Advantages	Disadvantages
Liu et al., 2023 [12]	Descriptive statistics, CB-SEM	N = 2029, public KT's	Model fit indices, β values	Large sample; robust SEM; focused on pay equity and support	Limited to public kindergartens; cross-sectional design
Ren et al., 2022 [13]	Correlation & mediation analysis	N = 530, rural PE teachers (Hunan)	r-values, p-values	Highlights JS as a mediator	Region-specific sample; self-reported data
Li et al., 2023 [14]	Serial mediation using PROCESS	N = 1513, PSTs	β coefficients, p-values	Clear analysis of WFC/FWC and organizational commitment	No direct income–turnover link; possible recall bias
Li et al., 2021 [15]	SEM analysis via online questionnaire	N = 1887, young teachers	Path coefficients, significance levels	Integrates Big Five personality with JS and engagement	Self-report bias; excludes extraversion effect
Wu et al., 2020 [16]	Multiple mediation (SET, SCT, SDT frameworks)	N unspecified, minority group teachers	Significance of mediators	Theoretical richness; dual mediators explored	No direct relationship between SE and JS; sample clarity lacking.
Fute et al., 2022 [17]	PROCESS for SPSS, correlation analysis	N = 2886, COVID-era sample	$\beta = 0.203$, r-values	Large sample; strong correlation evidence	Context-specific (COVID-19); self-reported limitations
Hu et al., 2024 [18]	SEM with mediation analysis	N = 318, Sichuan PSTs	Mediating effect confirmation, path significance	Novel connection between job crafting, identity, and competency	Small sample; geographically narrow
Zhang et al., 2024 [19]	Moderated mediation SEM	N = 220, Shanghai-based teachers	Model fit, moderation & mediation results	Considers meaningful work and stress factors on turnover	Small sample; limited generalizability

Xiang et al., 2024 [20]	SEM with mediation	N = 533, PSTs	β values, mediation analysis	Highlights PE's impact on occupational identity	Cross-sectional; not generalizable
Leung & Lam, 2025 [21]	SEM; online survey	N = 336, Hong Kong teachers	Path coefficients, mediation sizes	Dual mediators (commitment and engagement); good model fit	Cross-sectional; specific to Hong Kong

Several limitations are evident across the reviewed studies. For instance, studies [13] and [18] employed region-specific samples, which constrains external validity and limits the generalizability of their findings to wider preschool teacher populations. Study [14] relied predominantly on self-reported data, increasing the risk of common-method bias and reducing the objectivity of the results. Furthermore, study [21] adopted a cross-sectional design, which restricts the ability to draw robust causal inferences about the relationships among the key variables. Taken together, these limitations underscore the need for longitudinal, multi-regional investigations that incorporate more objective and multi-source data to provide stronger empirical evidence on preschool teachers' job attitudes and behaviors.

3. Hypotheses Development

This study examines the relationships among job satisfaction (JS), work engagement (WE), and organizational citizenship behavior (OCB) in preschool teachers (PSTs), with particular attention to the underlying mediating mechanisms. The proposed model specifies five hypotheses that capture both the direct and indirect pathways through which JS influences OCB. In particular, the mediating roles of work engagement (WE), psychological empowerment (PE), and emotional intelligence (EI) are considered in order to clarify how JS translates into positive, discretionary behaviors in preschool settings. Figure 1 presents the conceptual framework and hypothesized relationships.

When PSTs experience high levels of job satisfaction, they are more likely to feel enthusiastic, energetic, and dedicated to their work.

JS provides teachers with positive emotional and psychological resources, which in turn foster higher levels of WE. In this way, improvements in work conditions and professional experiences are expected to be reflected in greater engagement in core teaching tasks.

H1. Job satisfaction has a significant positive effect on work engagement among preschool teachers.

Teachers who are satisfied with their jobs are also more likely to perceive themselves as competent, autonomous, and able to influence their working environment. JS strengthens teachers' sense of meaning, control, and impact at work, thereby enhancing their psychological empowerment. Higher PE, in turn, increases teachers' willingness to take initiative and contribute beyond their formal role requirements.

H2. Job satisfaction has a significant positive effect on psychological empowerment among preschool teachers.

Moreover, teachers with higher JS tend to regulate their emotions more effectively and manage interpersonal relationships more constructively. Positive work experiences can enhance EI by increasing emotional awareness, empathy, and sensitivity to others' needs. This is especially important in early childhood education, where high-quality interactions with children, colleagues, and parents are central to professional practice.

H3. Job satisfaction has a significant positive effect on emotional intelligence among preschool teachers.

Work engagement is expected to serve as a key mechanism linking JS to OCB. Satisfied teachers are more likely to be cognitively, emotionally, and behaviorally invested in their work, which motivates them to go beyond formal job descriptions and engage in extra-role behaviors that benefit the organization and its stakeholders. Thus, WE is proposed to transform positive job attitudes into proactive and constructive organizational actions.

H4. Work engagement significantly mediates the relationship between job satisfaction and organizational citizenship behavior among preschool teachers.

Psychological empowerment is also hypothesized to mediate the association between JS and OCB. When teachers feel empowered experiencing a strong sense of competence, autonomy, and impact they are more inclined to invest discretionary effort and participate in voluntary, prosocial activities at work. In this sense, PE channels the positive effects of JS into sustained engagement in OCB, as empowered teachers perceive their extra efforts as meaningful and valuable.

H5. Psychological empowerment significantly mediates the relationship between job satisfaction and organizational citizenship behavior among preschool teachers.

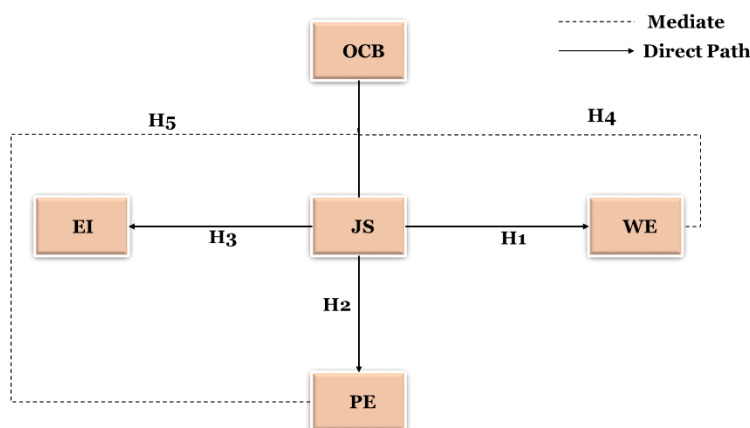


Figure 1: Conceptual Framework

4. Methodology

This study investigates the relationships among job satisfaction (JS), work engagement (WE), and organizational citizenship behavior (OCB) in preschool teachers (PSTs), with particular attention to key mediating mechanisms. This section outlines the research design, participants, instruments, data collection procedures, and statistical analyses used to test the hypothesized model. Presenting these procedures in detail supports replication and allows for a critical appraisal of the study's validity and reliability.

4.1 Research Design

A cross-sectional survey design with a quantitative approach was employed to examine the associations among JS, WE, psychological empowerment (PE), emotional intelligence (EI), and OCB in PSTs. This design is appropriate for assessing multiple constructs at a single point in time and for estimating both direct and indirect effects through statistical modeling.

4.2 Participants and Data Collection

Data were collected from a total of 408 preschool teachers using a standardized questionnaire. The instrument was administered in both paper-based and electronic formats, depending on participants' availability and preference. Participants were selected through random sampling to ensure representation across key demographic

characteristics, including age, teaching experience, and school type. All procedures adhered strictly to principles of anonymity and confidentiality, and participation was voluntary.

Table 2 presents the demographic characteristics of the preschool teacher sample, while Figure 2 provides a graphical overview of these demographic features.

Table 2. Demographic Features of Preschool Teacher Respondents

Variables	Categories	Frequency (n)	Percentage (%)
Gender	Male	82	20.1%
	Female	326	79.9%
Age Group (Years)	20–29	108	26.5%
	30–39	186	45.6%
	40–49	76	18.6%
	50 and above	38	9.3%
Teaching Experience	Less than 5 years	94	23.0%
	5–10 years	156	38.2%
	11–15 years	102	25.0%
	More than 15 years	56	13.7%
Educational Qualification	Diploma in Preschool Education	124	30.4%
	Bachelor's Degree	204	50.0%
	Master's Degree or above	80	19.6%
Monthly Income (INR)	Below ₹15,000	98	24.0%
	₹15,000–₹30,000	174	42.6%
	₹30,001–₹45,000	94	23.0%
	Above ₹45,000	42	10.3%
Job Position	Assistant Teacher	158	38.7%
	Lead/Head Teacher	186	45.6%
	Administrative Role	64	15.7%
Type of Institution	Public Preschool	238	58.3%
	Private Preschool	170	41.7%
Employment Type	Permanent	234	57.4%
	Contractual	174	42.6%

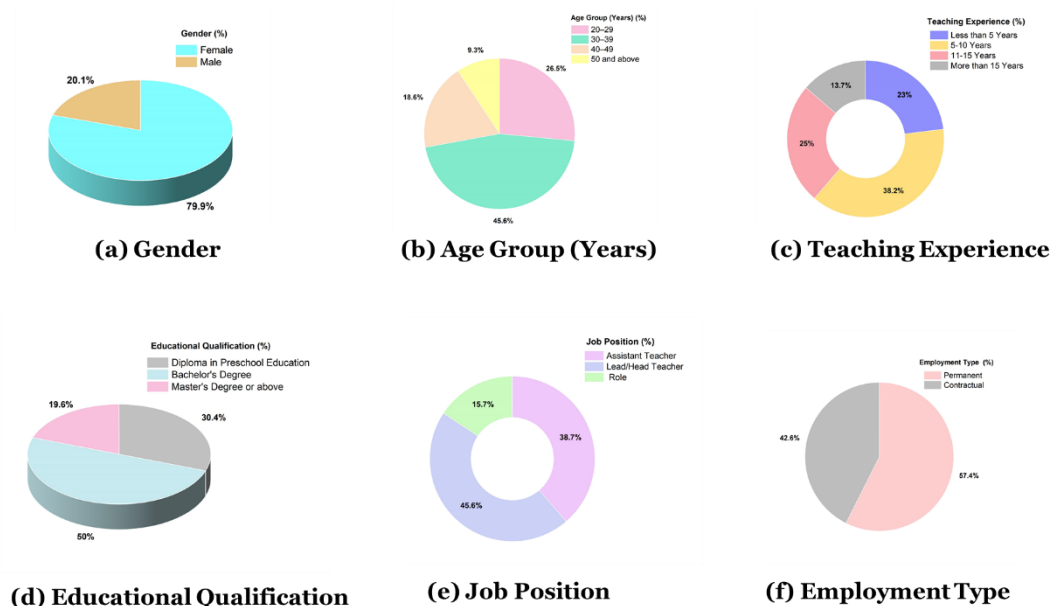


Figure 2: Graphical representation of the Demographic Features

The demographic profile of the 408 preschool teachers revealed that 20.1% were male ($n = 82$) and 79.9% were female ($n = 326$). The majority were 30-39 years old (45.6%), followed by 20-29 years (26.5%), 40-49 years (18.6%), and 50 and older (9.3%). In the teaching experience, 38.2% had 5-10 years, 25.0% had 11-15 years, 23.0% had less than 5 years, and 13.7% had more than 15 years. The majority (50%) had a Bachelor's degree, with 30.4% holding a diploma and 19.6% holding a Master's. Lead teachers comprised the largest group (45.6%), with 58.3% working in public preschools and 57.4% employed permanently.

4.3 Instrumentation

The questionnaire used standardized and validated scales to assess the following fundamental variables: JS, WE, PE, EI, and OCB. All questions were measured by utilizing a 5-point Likert scale (1 = strongly disagree and 5 = strongly agree). The instrument has a strong internal consistency, and its content validity was confirmed by expert evaluations.

4.4 Data Analysis

The information gathered was examined using SPSS. The research employed Descriptive statistics, Reliability analysis, Structural Equation Modeling (SEM) and Pearson correlation analysis for identifying key mediating mechanisms. Descriptive statistics were utilized to summarize each construction, standard deviations, obliqueness, and kurtosis. The reliability

analysis using the alpha of Cronbach (α) assessed the internal stability of measurement parameters. The Pearson Correlation Analysis identified the direction and strength of the association between all the research variables. The CFA validated the measurement model, confirming the construction's credibility and validity. SEM tested both direct and indirect relations between JS, intermediaries, and OCB.

5. Result

This research examines the relationships among JS, WE, and OCB in PSTs, with a focus on identifying the key mediating mechanisms. This section shows the research's findings based on descriptive statistics, reliability, correlation, and SEM. It assesses the assessment instruments' validity and consistency and investigates the hypothesized relationships between JS, WE, PE, EI, and OCB. The results provide empirical support for the proposed mediation model.

5.1 Analyzing Preschool Teachers' Responses Using Descriptive Statistics

Descriptive statistics characterize and define the fundamental characteristics of a dataset, such as mean, standard deviation, skewness, and kurtosis. It contributes to an understanding of preschool instructors' general reaction patterns in terms of JS, WE, PE, EI, and OCB. Table 3 shows descriptive data for the research's five primary variables.

Table 3: Demographic Characteristics of Preschool Teacher Participants

Variable	Mean (M)	Standard Deviation (SD)	Skewness	Kurtosis
JS	4.12	0.57	-0.62	0.44
WE	4.05	0.61	-0.47	0.26
PE	3.89	0.66	-0.31	-0.18
EI	4.01	0.59	-0.58	0.39
OCB	4.18	0.54	-0.69	0.61

OCB had the maximum mean ($M = 4.18, SD = 0.54$) with a substantially negative skew (-0.69) and a slightly peaked distribution (kurtosis = 0.61), indicating a high level of reported citizenship behaviour. JS also had a high mean of 4.12 ($SD = 0.57$), which was slightly negatively skewed (-0.62), demonstrating that the majority of teachers were highly satisfied. WE ($M = 4.05$), EI ($M = 4.01$), and PE ($M = 3.89$) all had negative skewness and roughly normal kurtosis values, indicating generally positive but variable responses among participants.

5.2 Assessment of Reliability Analysis Using Cronbach's Alpha for Measuring Teachers' Behaviors

Reliability Analysis assesses the consistency and stability of a measurement equipment, usually utilizing the α to determine internal consistency. It assures that the scales used to assess JS, WE, PE, EI, and OCB are reliable and accurately reflect the desired dimensions. Table 4 shows the internal consistency reliability of each variable.

Table 4: Reliability Scores for Each Variable Based on the α values

Variables	Number of Items	α
JS	3	0.872
WE	3	0.889
PE	3	0.854
EI	3	0.861
OCB	3	0.893
Overall Instrument Reliability	15 (Total)	0.902

The reliability analysis revealed a high internal consistency across all the variables, with α values ranging from 0.854 to 0.893 for individual scales. JS ($\alpha = 0.872$), WE ($\alpha = 0.889$), PE ($\alpha = 0.854$), EI ($\alpha = 0.861$), and OCB ($\alpha = 0.893$) all exceeded acceptable

levels. The instrument demonstrated great dependability ($\alpha = 0.902$).

5.3 Evaluation of Pearson Correlation Analysis for Measuring Teachers' Variable Relationships

Pearson Correlation Analysis measures the strength and direction of a linear association between the two continuous variables. It helps in determining the degree of correlation between JS, WE, PE, EI, and OCB before performing SEM analysis. It determines whether the

variables are significantly connected and appropriate for path modeling. Table 5 represents the Pearson correlation matrix for the fundamental variables. Figure 3 shows the visual representation of Pearson correlation analysis.

Table 5: Pearson Correlation Matrix among Variables

Variable	JS	WE	PE	EI	OCB
JS	1	-	-	-	-
WE	.721**	1	-	-	-
PE	.683**	.644**	1	-	-
EI	.659**	.616**	.587**	1	-
OCB	.672**	.701**	.629**	.611**	1

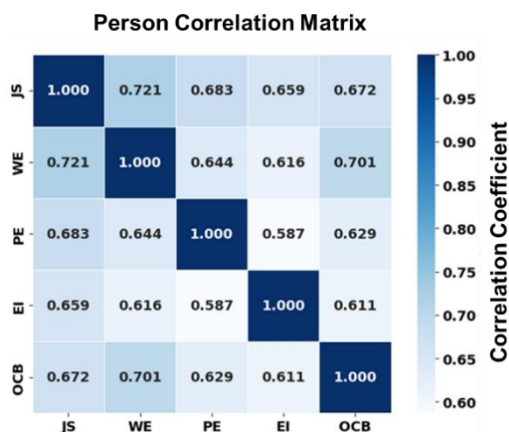


Figure 3: Visual Representation of Pearson Correlation Analysis

JS has a strong and positive correlation with WE ($r = .721^{**}$), PE ($r = .683^{**}$), EI ($r = .659^{**}$), and OCB ($r = .672^{**}$). The strongest correlation was discovered between WE and OCB ($r = .701^{**}$), indicating a close relationship. All correlations are significant at the $p < .01$ level, confirming the predicted positive connections between variables.

5.4 Evaluation of Variable Validity Using Confirmatory Factor Analysis (CFA) for Teachers

CFA is a statistical method for verifying a collection of

observable variables' factor structure and determining if they faithfully capture the underlying latent variables. It ensures that items load strongly on their intended variables to validate the validity of the measurement model. Measures like Composite Reliability (**CR**), Average Variance Extracted (**AVE**) and factor loadings are utilized to measure the discriminant and convergent validity. The variable validity of the five latent variables is verified by the CFA results, which are displayed in Table 6.

Table 6: CFA Results for Measurement Model

Variables	Items	<i>Factor Loading</i>	<i>AVE</i>	<i>CR</i>
JS	JS1	0.82	0.66	0.93
	JS2	0.86		
	JS3	0.78		
WE	WE1	0.88	0.70	0.94
	WE2	0.91		
	WE3	0.85		
PE	PE1	0.81	0.62	0.91
	PE2	0.76		
	PE3	0.79		
EI	EI1	0.87	0.64	0.92
	EI2	0.79		
	EI3	0.76		
OCB	OCB1	0.89	0.68	0.94
	OCB2	0.82		
	OCB3	0.85		

Strong item reliability is indicated by all factor loadings over 0.76; OCB ranges from 0.82 to 0.89, while JS ranges from 0.78 to 0.86. Convergent validity and high internal consistency of the measurement model are demonstrated by the *AVE* values, which range from 0.62 (PE) to 0.70 (WE), and the *CR* values which range from 0.91 to 0.94, surpassing the suggested criterion of 0.50.

5.5 Analyzing Teacher Behavior Relationships using Structural Equation Modeling (SEM)

SEM is an advanced multivariate statistical method that analyzes complicated connections between latent and observable variables in a single model. SEM examines the direct and indirect relationships among OCB, mediators (WE, PE, and EI), and JS. It validates the entire theoretical framework by integrating measurement and structural models. This method verifies whether hypothesized paths and mediations are statistically supported by actual data. Table 7 presents the SEM data for all proposed hypotheses. Figure 4 depicts an SEM path diagram illustrating relationships among key variables.

Table 7: SEM Results with Hypotheses Testing

Hypothesis	Path	Effect Type	β	<i>p – value</i>	Result
H1	JS → WE	Direct	0.621	< .001	Supported
H2	JS → PE	Direct	0.538	< .001	Supported
H3	JS → EI	Direct	0.492	< .001	Supported
H4	JS → WE → OCB	Indirect	0.424	< .001	Supported
H5	JS → PE → OCB	Indirect	0.171	< .001	Supported

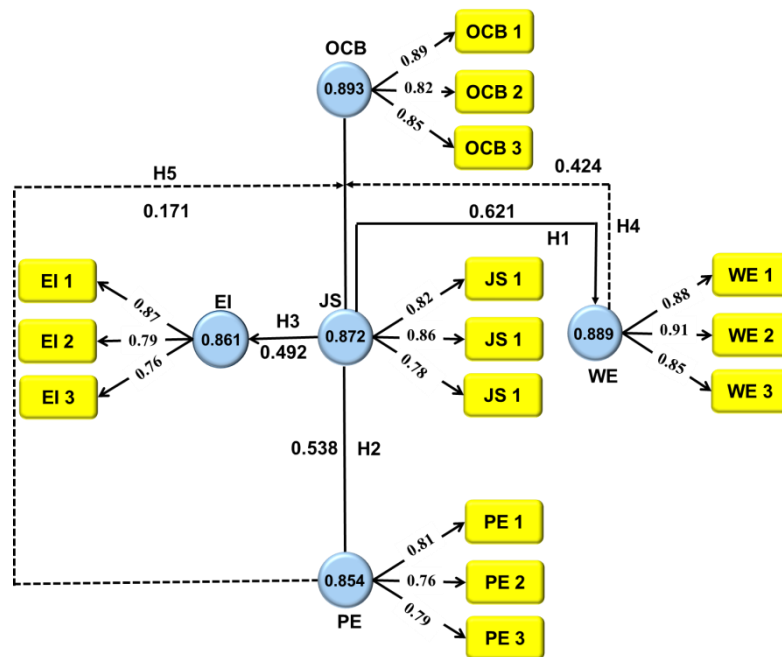


Figure 4: SEM Path Diagram Illustrating Relationships among Key Variables

JS has a substantial direct effect on the WE ($\beta = 0.621$), PE ($\beta = 0.538$), EI ($\beta = 0.492$), and OCB ($\beta = 0.171$). The indirect effects of WE ($\beta = 0.424$), and PE ($\beta = 0.171$), are substantial, indicating their mediating influence. All hypotheses have p-values $< .001$ or $< .01$, providing strong statistical evidence for the proposed model.

6. Discussion

Several existing approaches have significant drawbacks. For example, the research [15] employed a cross-sectional design, which constrains the capacity to draw conclusions about the causality. The articles [16] and [19] used region-specific or small sample datasets, which limited the generalizability of their findings. The investigation [20] utilized self-reported data, which increases the possibility of bias and diminishes objectivity. In contrast, the research used a well-validated model and included several mediators, and it also has a strong SEM analysis. The findings revealed that JS has a considerable influence on WE, PE, and EI, which have a positive impact on OCB. The mediating roles were statistically supported, which strengthened the model's validity. This integrated method provides complete knowledge of the elements that motivate positive teacher conduct. The research has practical implications for increasing teacher retention and institutional effectiveness in early education settings.

7. Conclusion

The research examines the relationships among JS, WE, and OCB in the PSTs, with a focus on recognizing the key mediating mechanisms. Data was collected from 408 preschool teachers using a structured questionnaire, showing high content validity and excellent internal stability. Descriptive figures revealed the high average score for all constructions, with OCB and JS performing the highest rankings. Pearson correlation analysis indicated significant and positive relations between all variables, with the highest correlation between us and the OCB. CFA confirmed strong factor loading, AVE value between 0.62 and 0.70, and the overall reliability value from 0.91 to 0.94. SEM revealed that JS had substantial direct effects on WE ($\beta = 0.621$), PE ($\beta = 0.538$), EI ($\beta = 0.492$). Indirect effects through mediators were also important: WE ($\beta = 0.424$), and PE ($\beta = 0.171$), confirm all seven hypotheses. A major limitation of the research was its dependence on self-reported cross-sectional data, which could have introduced the general method bias. Future research should utilize a longitudinal or mixed-method design to improve causal inference.

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Declarations

Ethics approval and consent to participate

The study was conducted in accordance with relevant ethical guidelines and the legal requirements of the country in which the research was carried out. No direct intervention with human participants was involved; the manuscript is based on the analysis of an existing dataset. Where applicable, institutional regulations regarding the use of such data were strictly followed.

Consent for publication

The author(s) confirm that any individuals (or their legal guardians, in cases where participants were unable to provide informed consent, or next of kin, if deceased) who might be identifiable in the manuscript have been given the opportunity to review the final version and have provided written consent for publication.

Availability of data and materials

The datasets used and/or analyzed during the current study are available from the corresponding author upon reasonable request.

Competing interests

The author(s) declare that there are no conflicts of interest, financial or otherwise, related to the research, authorship, or publication of this article. All authors have reviewed and approved the content of the manuscript, and there are no financial interests to disclose. The submission is original and is not under consideration for publication elsewhere.

Authors' contributions

All authors contributed to the conception and design of the study, as well as to the analysis and interpretation of the data. All authors participated in drafting and/or critically revising the manuscript, and all authors read and approved the final version.

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