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Organizational role stress, quality of work life, organizational citizenship behavior, and psychological well-being among university faculty members

Roshan Lal Dewangan[1,2*] and Tamaghna Goswami[1]

Abstract

Background This study introduces a rippleeffect model that links Quality of Work Life (QWL), Psychological well-being (PWB), Organizational Role Stress (ORS), and Organizational Citizenship Behavior (OCB) within Indian universities—a context seldom examined as an integrated system. The aim is to show how QWL propagates through PWB and ORS to influence faculty citizenship behavior, thereby filling a gap in multivariate stress research.

Methods Data were collected from 303 permanent faculty members in public and private universities in West Bengal, India. Participants completed validated scales for QWL, PWB, ORS, and OCB. Dimensional scores served as indicators. Reliability was assessed via Cronbach's α and composite reliability (all ≥ 0.82). Harman's singlefactor test confirmed negligible commonmethod variance. Hypotheses were tested with structuralequation modeling in AMOS; the model fit was evaluated with CFI, TLI, RMSEA, and SRMR.

Results The final model showed a good fit (CMIN/df = 1.76; CFI = 0.92; TLI = 0.91; RMSEA = 0.05). QWL was positively associated to PWB (β = 1.00, $p < .001$) and negatively associated to ORS (β = −0.15, $p = .021$). PWB was associated to reduced ORS (β = −0.12, $p = .002$) and increased OCB (β = 0.07, $p = .002$). ORS has a strong negative association with OCB (β = −0.51, $p < .001$). Mediation testing revealed that PWB partly mediated the QWL → ORS pathway, while ORS mediated both QWL → OCB and PWB → OCB. A sequential mediation (QWL → PWB → ORS → OCB) was also significant (β = 0.06, 95% CI = 0.023–0.108). The ripple effect model explained 63% of OCB variance.

Conclusions This study reveals how systemic QWL improvements cascade through psychological and stress-related mechanisms to foster prosocial behaviors. It advances organizational stress theory by demonstrating these dynamics in a high-pressure academic context. Practical implications suggest prioritizing workload autonomy, and flexible policies to enhance well-being and institutional performance. The findings highlight the need for holistic, organization-level interventions over individual-focused approaches.

Keywords Organizational intervention, Role stress, Organizational stress management, Higher education, University employees

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Introduction

Modern organizations confront a paradox; they demand ever-greater flexibility, innovation, and customer focus, yet these pressures intensify employee strain. Organizational role stress (ORS) captures the tension employees feel when role expectations are unclear, conflicting, or overwhelmingly heavy, and it has been linked to burnout, absenteeism, and turnover [1–4]. To counteract such strain, firms increasingly invest in quality of work-life (QWL) initiatives—policies that extend beyond pay to encompass autonomy, work-life balance, supportive supervision, and safe, resource-rich environments [5]. Elevated QWL does more than improve morale; it replenishes personal resources and feeds directly into psychological well-being (PWB) [6]. Employees who flourish psychologically are not merely less exhausted; they are more inclined to enact organizational citizenship behavior (OCB)—voluntary acts such as helping colleagues, championing improvements, and safeguarding organizational reputation. These discretionary behaviors, although absent from formal job descriptions, are indispensable to agile, knowledge-based enterprises [7].

University campuses increasingly resemble high-pressure corporate environments, asking faculty to teach larger classes, secure competitive grants, publish in top-tier journals, and perform extensive service—all within shrinking budgets [8–10]. These layered expectations heighten ORS as academics juggle ambiguous, conflicting, or excessive duties, often without adequate guidance or resources [9, 11, 12]. At the same time, many institutions struggle to maintain a positive QWL; autonomy can be constrained by rigid curricula, collegial support eroded by performance metrics and work-life balance threatened by "publishorperish" norms [13–16]. How faculty experience this environment profoundly shapes their psychological well-being [17] and affects whether educators engage in organizational citizenship behavior, such as mentoring students outside class hours, covering a colleague's lecture, or championing institutional initiatives [7]. These discretionary acts are vital to student success and institutional reputation, yet they require time and emotional bandwidth that heavy role stress can deplete [7].

Existing studies typically examine faculty stress, well-being, or citizenship behavior in isolation, and neglect how organizational and personal resources interact to shape outcomes. By modeling **QWL → PWB → ORS → OCB** simultaneously in Indian universities, our study fills two important gaps: (1) integrates organizational and psychological perspectives within a single causal framework; and (2) tests sequential mediation rather than parallel, single-path effects. This holistic approach clarifies where interventions will yield the greatest leverage, a question unanswered by prior siloed research.

Literature review

Organizational role stress and its detrimental effect

Job-related stress levels have continued to increase worldwide each year. In 2016, up to 90% of the workers across different sectors (like healthcare, education, services, finance, retail trade, transport, construction, and the public sector) in the world reported that they were going through work-related stress [18]. Worldwide, approximately 12 billion working days are forfeited annually due to depression and anxiety related to the workplace, resulting in a staggering loss of productivity amounting to US$ 1 trillion per year [19]. A major source of job-related stress within organizations is the roles individuals hold, commonly referred to as organizational role stress (ORS) [20]. ORS is a framework developed by Pareek (1983) to conceptualize job-related stressors that arise from the structure and demands of one's organizational role. The model includes ten distinct dimensions, such as role ambiguity, role overload, role stagnation, and resource inadequacy, each capturing a specific type of strain-inducing condition within the workplace [21]. It is important to distinguish between these role stressors and general feelings of stress; while the former are situational characteristics embedded in the job role, the latter refers to psychological or physiological responses to such demands. The extent of ORS is influenced by an individual's perception of the situations, constraints, opportunities, or threats encountered while carrying out their responsibilities. This perception shapes how individuals experience and respond to the demands and challenges inherent in their organizational roles [21–23]. Studies have shown that ORS causes emotional burnout and decreased sense of accomplishment [2], can negatively impact the level of job satisfaction [1, 3, 4], can have a detrimental effect on employees' turnover intention [4, 24], and can lead to poor organizational commitment [25, 26]. It is comparable enough with another work-related stressors in causing long-term physical illnesses [27]. It equally affects employees in the public and private sectors [17].

In recent years, faculty members have faced heightened role demands due to increased institutional accountability, publication pressure, rigid evaluation metrics, and limited autonomy in curriculum or assessment design [13, 28]. University faculty members—particularly in Indian higher education institutions—navigate a complex interplay of academic responsibilities, including teaching, research, student mentoring, and administrative duties which have increased since Covid-19 many folds [8]. These demands often lead to role ambiguity, role overload, and resource inadequacy, key components of ORS [17].

Quality of work life (QWL) and its effect on organizational and personal aspects

Quality of Work Life (QWL) refers to the overall well-being, satisfaction, and fulfillment that employees experience in their work environment [29]. It encompasses various aspects of work, including job satisfaction, work-life balance, job security, workplace safety, opportunities for growth and development, interpersonal relationships, and overall organizational culture [5]. Thus, it is understood that QWL provides a bigger picture than employee job satisfaction; it represents various aspects of work to create a comprehensive understanding of employees' overall well-being in the workplace [5, 30]. Studies have shown that QWL is associated with organizational stress [31] and productivity [32, 33]. Enhancing the quality of work life can boost employee job satisfaction and reduce stress, leading to lower turnover rates. Job satisfaction reflects employees' contentment, freedom of thought, reduced stress, and confident approach to job requirements. It is a crucial concern for both employers and employees in every organization, shaping future outcomes and influencing overall well-being [34]. Previous studies have shown that QWL has a significant role in employee psychological well-being [35, 36].

Psychological wellbeing (PWB) in organizational setup

Psychological well-being (PWB) refers to an individual's overall mental health and emotional state, encompassing feelings of happiness, fulfillment, resilience, and a sense of purpose and meaning in life. It involves maintaining a positive mindset and coping effectively with life's challenges [37]. Environmental and individual factors play an important role in determining an individual's PWB [38]. It has been found that psychological well-being is particularly dependent on employees' subjective assessment of the work environment [6]. Employees who spend a minimum of six hours at the workplace for 5–6 days are likely to have their PWB significantly influenced by the quality of work life (QWL). Studies conducted in different countries with various occupational setups suggest that work-related stress can significantly diminish the PWB of employees and workers [39–42]. Data across European countries have shown that ORS has a significant negative association with PWB of employees [43].

Organizational citizenship behavior (OCB) and its determinants

The growing interest in organizational citizenship behavior (OCB) owing to its significance in supporting an organization's social system is well known. It has resulted in organizations' focus on team-based work structures, emphasizing individual initiative and cooperation over strict hierarchies and individualized roles [44]. OCB refers to voluntary, discretionary actions and behaviors exhibited by employees in the workplace that go beyond their formal job requirements. These behaviors are not explicitly recognized or rewarded by the organization's formal reward system but contribute to the overall effectiveness and functioning of the organization [44, 45]. Specifically public organizations are under growing pressure and heightened performance demands from citizens, all while struggling with the challenge of maintaining service standards amidst shrinking budgets. Consequently, OCB may emerge as a vital element in how organizations navigate these difficulties, as it inspires employees to surpass their formal role obligations [46].

Despite its independence from organizational reward and discretionary nature, OCB can be influenced by vicarious learning [47] and perceived moral obligation within the organization [48]. Few works on QWL or its components indeed favor this assumption [46]; researchers have shown that QWL affects OCB [49–51] and there is evidence that a congenial work environment can foster OCB [52, 53]. Research on predictors of OCB has predominantly concentrated on individual traits and certain organizational aspects. Variables like job satisfaction, procedural justice, organizational commitment, role conflict, leadership perception, and organizational justice have been identified as factors that encourage OCB [46, 54, 55]. However, there is a notable gap in the literature: no study, to our knowledge, has explored the combined influence of the broader work environment, such as QWL, and ORS on OCB. Furthermore, in the context of OCB and ORS, it is argued that work-related stress factors, such as work overload and interpersonal conflict, may decrease OCB by reducing employees' emotional attachment or organizational commitment [56]. Providing further insight, one study found that emotional stress undermined employees' OCB, whereas physical distress was positively linked with pro-OCB [57], and another study did not find any significant correlation between OCB and work stress among 301 nurse participants [58]. Particularly in non-western cultures, OCB was significantly negatively correlated to ORS in Arab participants [59]. In the context of PWB, the negative relationship between ORS and PWB has already been mentioned in this paper. Studies have also found that psychological empowerment positively mediates the relationship between various organizational factors and OCB [46]. Therefore, a positive association between PWB and OCB can be assumed.

Justification of this study and the theoretical model

The current literature on workplace stress and employee behavior has made significant strides in examining individual relationships between key constructs of ORS, QWL, PWB, and OCB. However, these studies often adopt a fragmented approach, analyzing these variables

in isolation or through narrow dyadic relationships, which limits our understanding of their interconnected dynamics. For instance, while substantial evidence supports the direct link between QWL and PWB [60, 61], research has largely overlooked how PWB might mediate the impact of QWL on stress reduction or prosocial workplace behaviors. Similarly, although ORS is well-documented as a deterrent to OCB [60], few studies investigated whether enhanced PWB can mitigate this effect [49]. However, no study assessed the effect of organizational interventions like QWL initiatives that indirectly foster OCB by alleviating role-related stressors.

Burke (1993) has indicated earlier that stressors originating within organizations may pose challenges for stress management programs focused solely on individual employees [62]. While individual interventions yield positive outcomes, addressing these issues independently may restrict potential effectiveness [63–65]. Earlier findings indicated that individual-level interventions like retraining, outplacement services, and counseling primarily help individuals cope with job loss but do not address the core organizational issues or interrupt the cycle of decline, serving mainly to minimize harm rather than restore organizational health [66]. A recent one-year prospective study suggests its effectiveness in reducing physical pain and absentness [67]. Meta-analysis of individual interventions, targeting specifically anxiety and depression in the workplace, suggests a small positive effect [68]. Another meta-analysis which simultaneously assessed individual, group, leader, and organization (IGLO) resources available at the workplace, suggests that all these resources are effective in improving employee well-being and work performance [69]. However, they do not answer which specific level of intervention would be more effective and lasting. In contrast, another earlier comprehensive meta-analysis [70] suggests that individual-focused interventions, which address issues such as health-related problems or conflicts at the employee level, are beneficial for individual well-being. However, these interventions often do not lead to favorable outcomes at the organizational level. Whereas organizational intervention approaches—intervention that aims to reduce workplace stress by addressing factors that operate at the macro level, such as the organizational structure, work environment, personnel policies, and employee participation— have more beneficial impacts on organizational as well as individual levels. Systematic study also vouches for the effectiveness of organizational and group-level workplace interventions on multiple work-related stress reduction and employee well-being [71]. It is crucial to examine the broader organizational context while also evaluating the impact of individual factors to develop targeted and cost-effective intervention policies. Studying the relationships among key organizational variables within the context of ORS can offer valuable insights into understanding stress dynamics and crafting effective intervention strategies.

In this study, we simultaneously test ORS, QWL, PWB, and OCB within a unified structural-equation model of Indian university faculty. By combining organizational and personal resource perspectives, we move beyond single-variable explanations and provide a broader model of the "ripple effect" of QWL on employee outcomes. Our ripple-effect model treats QWL as the starting point of a resource-gain spiral that ultimately shapes faculty behavior. Supportive work conditions—such as autonomy, collegial climate, and fair rewards—first enhance PWB, providing individuals with emotional and cognitive resources [41–45]. Elevated PWB then diminishes ORS by helping faculty reinterpret or better cope with role overload, ambiguity, and other stressors inherent in academic work [46]. Reduced ORS, in turn, liberates time, energy, and goodwill, increasing the likelihood that employees will engage in discretionary, pro-social actions captured by OCB [59]. The sequential pathway—QWL → PWB → ORS → OCB—thus demonstrates how improvements in the work environment propagate through personal well-being and stress appraisal to foster positive, extra-role contributions, offering a holistic lens that goes beyond single-variable explanations of faculty outcomes in Indian universities. By integrating organizational and psychological perspectives, we address two critical limitations of existing work: (1) the lack of holistic frameworks that map how resource gains (e.g., QWL) propagate through personal well-being to reduce stress and enable discretionary efforts; and (2) the overreliance on individual-level interventions despite evidence that systemic stressors require structural solutions. Thus, our research objectives are:

(1) To examine direct relationships among QWL, PWB, ORS, and OCB; (2) To test whether PWB mediates the effect of QWL on ORS; (3) To determine whether ORS mediates the effects of QWL and PWB on OCB; (4) To evaluate a sequential mediation—QWL → PWB → ORS → OCB—within university faculty.

Hypotheses development

Considering the literature review and our proposed ripple effect model following hypotheses were tested to fulfill the objectives of this study:

H1: QWL is negatively associated with ORS.
H2: PWB is negatively associated with ORS.
H3: QWL is positively associated with PWB.
H4: QWL is positively associated with OCB.
H5: PWB is positively associated with OCB.
H6: ORS is negatively associated with OCB.
H7: The association between QWL and ORS is significantly mediated by PWB.

H8: The association between QWL and OCB is significantly mediated by ORS.

H9: The association between PWB and OCB is significantly mediated by ORS.

H10: The association between QWL and OCB is sequentially mediated by PWB and ORS.

Methods

Procedure and sample

This study focused on faculty members from general universities in West Bengal, India, where there are 28 public and 8 private institutions of this type. Technical and medical universities were excluded due to fundamental differences in their work environments and infrastructure. While stratified random sampling would have been ideal to ensure proportional representation across university types, faculty ranks, genders, and disciplines, this approach was not feasible due to the lack of publicly available, updated faculty demographic data - particularly from private universities and inconsistently maintained public university records. Consequently, the study employed purposive sampling to recruit participants while making concerted efforts to maintain diversity across key dimensions.

We conducted a pilot study with 38 faculty members to assess the feasibility of the research protocol. Participants were approached in their university offices, where the study objectives and procedures were explained in individual sessions. Interested faculty provided written informed consent before participation. All participants received a participant information sheet and the study measures, with each session lasting 60–90 min. We did not find any significant issues, thus, completed the study with the rest of the participants. Final data were collected from 303 faculty members across three public and three private general universities in Kolkata, a sample size that meets recommended thresholds for structural equation modeling [72] and ensures robust analytical power. We approached 350 potential participants, applying inclusion criteria of permanent faculty status with at least two years of service and having competency in the English language. Permanent faculty are more likely to have stabilized into their organizational roles, ensuring their responses reflect established experiences with institutional policies, workload, and stress dynamics. Generally, university faculties serve one year of probation period before their permanent status. Ad-hoc or newly hired faculty might report atypical stress due to onboarding or temporary contracts, which could skew results. Hence, inclusion criteria of permanent faculty status with at least two years of service were applied. The final sample achieved representation across academic disciplines (basic sciences, humanities, social sciences, and arts) and faculty ranks (from assistant to full professors), with nearly equal proportions from the public (52.1%) and private (47.9%) institutions, thereby providing balanced institutional perspectives. However, some participants chose not to disclose their specific disciplines, so these details have been omitted (see Table 1 for further demographic information).

Measures

All the measures were administered in the original language (i.e., English) format.

The organizational role stress scale (ORSS)

ORSS [1] was employed to assess individuals' experience of role stress and various forms of conflict within an organizational context. It has 50 items which can be answered in a 5-point Likert rating scale, ranging from 0 to 4 for each statement, and higher scores signify increased role stress. The scale comprises 10 dimensions, namely—Inter-Role Distance (IRD), Role Stagnation (RS), Role-Expectation Conflict (REC), Role Erosion (RE), Role Overload (RO), Role Isolation (RI), Personal Inadequacy (PI), Self-Role Conflict (SRD), Role Ambiguity (RA), and Resource Inadequacy (RIn). Extensive uses of this scale in different Indian setups [73–75] support its validity.

Quality of work life scale (QWLS) [5]

Quality of work life assesses overall well-being and satisfaction experienced by individuals in their work environment through 50 items divided into nine dimensions— Work environment, organization culture and

Table 1 Descriptives of the participants ($N = 303$)

Details		Frequency/ Mean	Percentage/Std Dev
Gender	Male	131	43.2
	Female	172	56.8
University	Public	158	52.1
	Private	145	47.9
Designation	Assistant Professor	170	56.1
	Associate Professor	56	18.5
	Professor	77	25.4
Age (Years)	(25_{min}-61_{max})	41.45	10.47
Experience (Years)	(2_{min}-35_{max})	10.8	6.40

climate, relation and cooperation, training and development, compensation and rewards, facilities, job satisfaction and job security, autonomy of work, and adequacy of resources. Items are answered on a 5-point Likert scale, where a rating of 5 indicates 'strongly agree' and a rating of 1 indicates 'strongly disagree'.

Psychological wellbeing scale (PWBS-42) [76]

The PWBS-42 assesses seven dimensions of psychological well-being: autonomy, environmental mastery, personal growth, positive relations with others, purpose in life, and self-acceptance. Respondents rate its 42 items on a 7-point Likert scale, where 1 represents "strongly agree" and 7 represents "strongly disagree". Its widespread use worldwide, with established reliability and validity across more than 30 languages in different countries, speaks to its popularity and effectiveness [77, 78].

Organizational citizenship behavior (OCBS) [79]

The assessment comprises 24 items delineating five dimensions of organizational citizenship behavior: altruism, conscientiousness, sportsmanship, courtesy, and civic virtue. Participants respond on a 7-point Likert-type scale, ranging from 1 for "strongly disagree" to 7 for "strongly agree." Since its introduction, this measure has become widely used and recognized as one of the prominent tools for evaluating OCB [80, 81].

In this study, the dimensions of the measures served as indicators rather than the individual items. Therefore, by summing the scores of all items within each respective dimension, a total score for that dimension was obtained, which was then used as an indicator (i.e., individual item). The reliability scores for all the measures in this study are provided in Table 2. The reliability of the measures was assessed using Cronbach's alpha and composite reliability [82]. A reliability coefficient > 0.70 suggests very good reliability for the measure [83].

Ethics

This study was conducted in accordance with the 1964 Helsinki Declaration, its later amendments, or comparable ethical standards. Participation in this study was voluntary, informed consent was obtained from the participants and the confidentiality of their identity and obtained information were maintained. Protocols and procedures were approved by the Human Research Ethics Committee of the Kazi Nazrul University, Asansol.

Statical analyses

Descriptive statistics were calculated using IBM SPSS 21 for WINDOWS. Structural equation modeling (SEM) was used to test the hypotheses. IBM SPSS AMOS 20 was used for SEM analyses. Bootstrap for 95% confidence with 5000 iterations was performed. Model fit indices–comparative fit index (CFI), Tucker-Lewis's index (TLI), Standardized Root Mean Squared Residual (SRMR), and root mean square error of approximation (RMSEA)—were used to ascertain the model fit. To further examine the potential influence of common method variance (CMV), we conducted Harman's single-factor test using unrotated exploratory factor analysis as well as Confirmatory Factor Analysis (CFA).

Results

First, we examined whether demographic and role characteristics were related to our focal constructs. Table 3 indicates that PWB was the only variable significantly correlated with age, designation, and years of experience—implying that well-being tends to improve as faculty mature and progress in rank. No study variables showed significant associations with gender or university sector (public vs. private). Because these relationships were limited and did not affect the primary paths of interest, none of the demographic or role variables were included as controls in the subsequent path analysis.

The structural equation model (SEM) used in this study has an adequate fit. The CMIN/df = 1.76 ($p < .001$) is less than three which is acceptable [84]. The CFI (0.92), TLI(0.91), SRMR (0.05), and RMSEA (0.05) were in the good fit range [85, 86]. An unrotated principal component factor analysis was performed on all questionnaire items. The first factor explained 17.2% of the total variance, suggesting that common method variance is unlikely to affect the results significantly. The original CFA model had a chi-square of 703.688 (df = 399), and Harman's single-factor test revealed CMIN/df = 5.01 ($p < .001$) with poor model fit [CFI (0.58), TLI (0.55), and RMSEA (0.12)]. It suggests that CMV is not a substantial threat to the validity of our results. Different paths evaluated in this model are given in Fig. 1 with standardized

Table 2 Reliability and mean scores of the measures

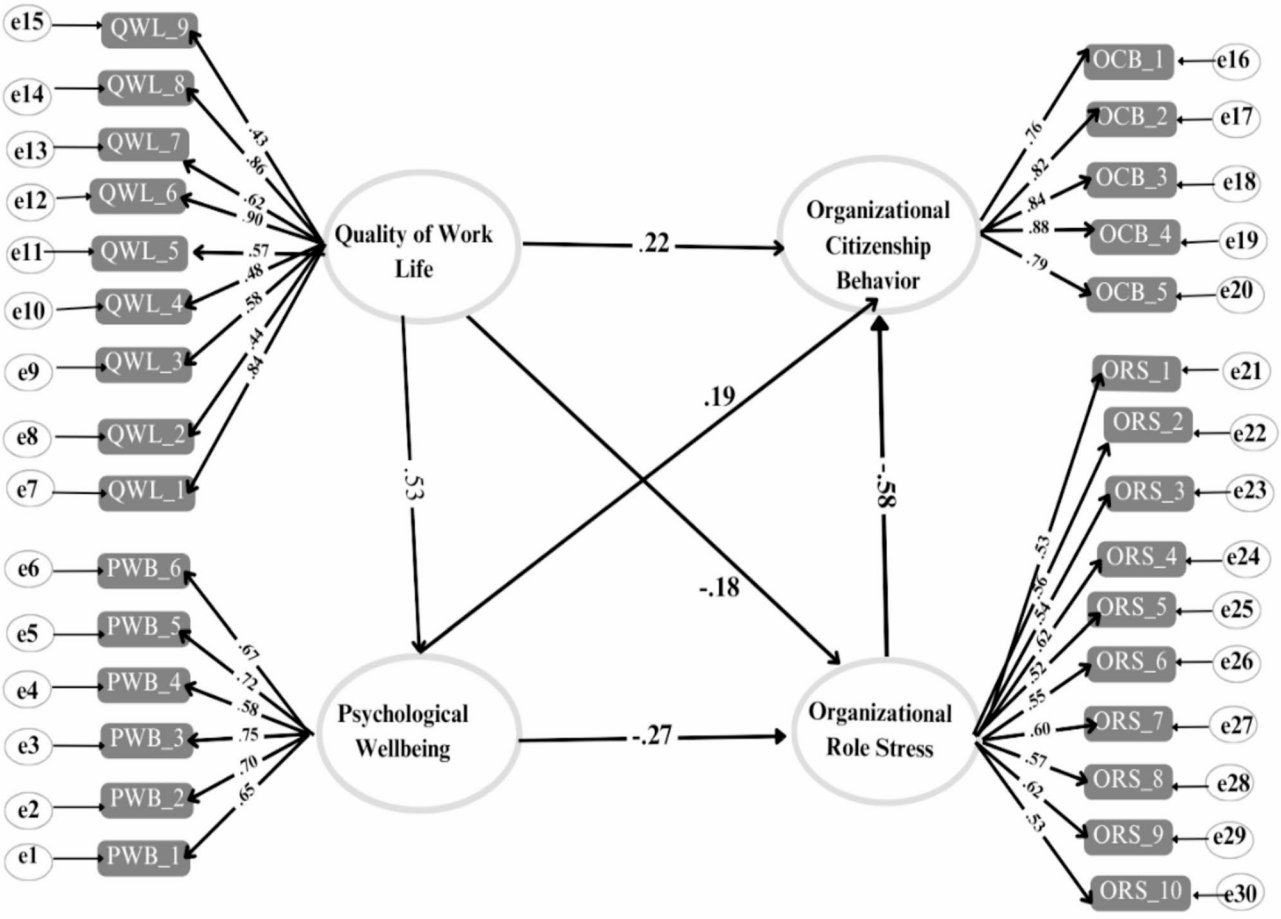
Measure	No. of dimensions	Cronbach's alpha	Composite Reliability	Mean (SD)
ORSS	10	0.82	0.81	87.70(34.47)
QWLS	9	0.84	0.87	171.15(31.44)
PWBS	6	0.84	0.84	189.93(48.57)
OCBS	5	0.90	0.91	91.06(13.36)

Note. ORSS: The Organizational Role Stress Scale, QWLS: Quality of Work Life Scale, PWBS: Psychological Wellbeing Scale, OCBS: Organizational Citizenship Behavior Scale

Table 3 Correlation of demographic and organizational role variable with study variables

	1	2	3	4	5	6	7	8
1. Age								
2. Gender	−0.01							
3. Designation	0.87**	−0.01						
4. Experience (month)	0.85**	−0.03	0.91**					
5. University type	−0.14*	0.02	−0.15**	−0.13*				
6. QWL	0.06	−0.01	0.07	0.03	0.12*			
7. PWB	0.16**	0.02	0.16**	0.22**	−0.08	0.40**		
8. ORS	−0.05	−0.07	−0.06	−0.08	−0.07	−0.26**	−0.32**	
9. OCB	0.07	0.06	0.08	0.11	0.02	0.45**	0.45**	−0.65**

Note. *p <.05, **p <.01. Gender: Male (1), Female (2); Designation: Assistant Professor (1), Associate (2), Professor (3); University Type: Public (1), Private (2). QWL: Quality of Work Life, PWB: Psychological Wellbeing, ORS: Organizational Role Stress, OCB: Organizational Citizenship Behavior



Note. PWB_1: Autonomy, PWB_2: Environmental Mastery, PWB_3: Personal Growth, PWB_4:Positive Relations, PWB_5: Purpose in Life, PWB_6: Self-Acceptance; QWL_1: Work environment, QWL_2: Organization culture and climate, QWL_3: Relation and co-operation, QWL_4: Training and development, QWL_5: Compensation and Rewards, QWL_6: Facilities, QWL_7: Job satisfaction and Job security, QWL_8: Autonomy of work, QWL_9: Adequacy of resources; OCB_1: Altruism, OCB_2: Sportsmanship, OCB_3: Conscientiousness, OCB_4: Courtesy, OCB_5: Civic Virtue; ORS_1: Inter Role Distance , ORS_2: Self Role Distance , ORS_3: Role Expectation Conflict, ORS_4: Role Erosion , ORS_5: Role Overload , ORS_6: Role Isolation, ORS_7: Personal Inadequacy, ORS_8: Self Role Distance, ORS_9: Role Ambiguity, ORS_10: Resource Inadequacy.

Fig. 1 Path model with standardized coefficients (N = 303)

coefficients (see Table 4 for path analysis results with unstandardized coefficients).

QWL was negatively associated with ORS (r =–.26, p<.001) and showed a significant negative path coefficient in the SEM (β =–0.15, p=.021), consistent with H1. Likewise, PWB associated negatively with ORS (r =–.32, p<.001) and displayed a significant negative path coefficient (β =–0.12, p=.002), supporting H2. QWL associated positively with PWB (r=.40, p<.001) and had a significant positive path coefficient (β = 1.00, p<.001), in line with H3. QWL also associated positively with OCB (r=.45, p<.001) and showed a significant positive path coefficient (β = 0.16, p<.001), supporting H4. PWB's positive associated with OCB (r=.45, p<.001) was mirrored by a significant positive path coefficient in the model (β = 0.07, p=.008), supporting H5. Finally, ORS associated negatively with OCB (r =–.65, p<.001) and had a significant negative path coefficient (β =–0.51, p<.001), consistent with H6.

PWB exhibited a significant mediating role in the relationship of QWL with ORS (β = – 0.11, p<.01), thus supporting H7. Additionally, ORS served as a significant mediator in the association of QWL with OCB (β = 0.08, p<.05), corroborating H8. Furthermore, ORS emerged as a significant mediator in the relationship of PWB with OCB (β = 0.06, p<.01), supporting H9. Lastly, both PWB and ORS were significant mediators in the relationship of QWL with OCB (β = 0.06, p<.01), thereby supporting H10.

Discussion

The study's findings provide insight into the complex associations between different organizational elements and employee outcomes. Firstly, the negative relationship between QWL and ORS, suggest a detrimental impact of poor quality of work life on organizational role stress (ORS). While existing research has addressed a broad spectrum of QWL and organizational factors contributing to general stress [87, 88], there remains a scarcity of studies specifically examining the association of QWL on ORS. For instance, one study found that the nursing work environment was associated with heightened responsibility pressure and stress among nurses [89], while other studies identified factors such as job autonomy, high job demands, and lack of cooperation as contributors to ORS [90, 91]. In our study, we demonstrated that QWL might directly exacerbate stress related to employees' roles within the organization. Previous research among teachers has shown that perceived positive QWL can alleviate psychological distress, whereas perceived negative QWL can exacerbate it [36]. Similarly, we found a positive correlation between QWL and Psychological Well-being (PWB) indicating that an improvement in QWL is associated with enhanced PWB among employees [43, 92]. The spillover effect assumes that QWL might impact various aspects of an individual's life satisfaction and overall well-being. It encompasses not only satisfaction with the job itself but also extends to other domains of life outside of work. This includes the individual's satisfaction with their personal life, relationships, health, and overall happiness. Essentially, it examines how the quality of one's work environment influences their subjective feelings of fulfillment and contentment across different areas of their life [30]. Moreover, certain dimensions of QWL, such as 'relation and cooperation' and 'autonomy,' are integral components of PWB, further explaining the observed relationship between QWL and PWB. However, they are conceptually and operationally distinct. For example, the autonomy measured under PWBS reflects an individual's internal sense of self-direction, such as their ability to make independent decisions, resist social pressure, and adhere to personally meaningful values. In contrast, the autonomy dimension under QWL assesses the external, structural aspects of one's job role—such as flexible working hours, the ability to work from home, and the opportunity to use one's professional skills.

The negative association between PWB and ORS reinforces the notion that higher levels of PWB are associated

Table 4 Path analysis results

Direct Path	Estimate	Std Error	t-value	*p*
QWL→ORS	−0.15	0.065	-2.30	0.021
PWB→ORS	−0.12	0.038	-3.14	0.002
QWL→PWB	1.002	0.134	7.48	< 0.001
QWL→OCB	0.16	0.041	3.80	< 0.001
PWB→OCB	0.074	0.023	3.14	0.002
ORS→OCB	−0.51	0.072	-7.08	< 0.001
Indirect Path	**Estimate**	**95% CI**		**p**
		LL	**UL**	
QWL→PWB→ORS	-0.118	-0.219	-0.041	0.002
QWL→ORS→OCB	0.077	0.003	0.171	0.041
PWB→ORS→OCB	0.06	0.02	0.109	0.002
QWL→PWB→ORS→OCB	0.06	0.023	0.108	0.002

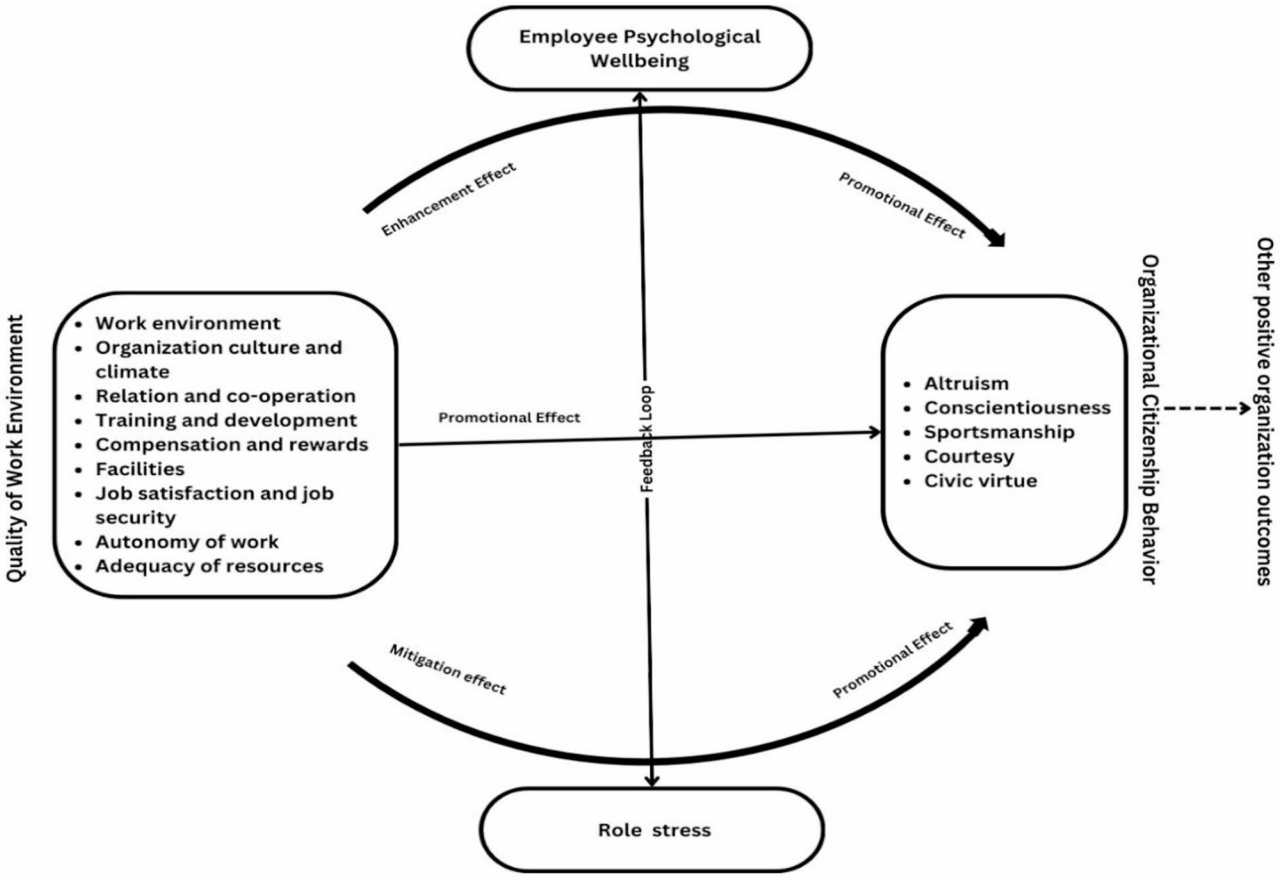


Fig. 2 Ripple effect of quality of work life

with lower levels of ORS. This finding aligns with previous studies establishing a negative correlation between PWB and occupational stress [93–95] and occupational stress [24, 39, 96, 97]. Given the positive correlation between QWL and PWB, and their negative relationship with ORS, we found that PWB significantly partially mediated the relationship of QWL with ORS.

Whereas the role of job satisfaction, organizational commitment, and leadership style have been studied as predictors of OCB in previous studies [46], in our study we have measured broader aspects of the organization (i.e., QWL). We found positive correlations between QWL and OCB, as well as between PWB and OCB, indicating that both QWL and PWB are positively associated with organizational citizenship behavior (OCB). Additionally, the negative relationship between ORS and OCB confirms previous study findings [2, 98, 99]. Overall, these findings underline the importance of promoting a positive work environment characterized by a high quality of work life and psychological well-being, while simultaneously addressing organizational role stress, to foster desirable employee behaviors and organizational outcomes.

Theoretical implication

Figure 2 presents our "ripple-effect model", which we derived from the study's path analyses. In essence, a supportive and richly resourced work environment acts as a catalyst: it first elevates employees' well-being, which then dampens their experience of role ambiguity, overload, and related stressors, ultimately liberating time and energy for discretionary, prosocial actions. This sequential logic mirrors evidence from Lamontagne et al.'s (2007) meta-analysis [70], which advocates organization-level interventions over purely individual ones, and from Fox et al.'s (2022) review [71], showing that initiatives granting employees greater control and voice reliably boost well-being. The study yields three key contributions. First, it integrates formerly disconnected literature into a coherent chain—QWL → PWB → ORS → OCB—demonstrating that QWL's benefits are not merely additive but sequential. By revealing that elevated well-being is the mechanism through which QWL diminishes role stress and unlocks citizenship behavior, the model challenges single-variable explanations and underscores the value of multivariate, systems-level frameworks in workplace stress research.

Second, it supplies much-needed contextual specificity by testing this cascade within Indian universities, where bureaucratic rigidity, "publish-or-perish" mandates, and chronic resource constraints intensify faculty stress [8, 13, 100]. Our findings illustrate how such systemic pressures interact with QWL practices to magnify or mitigate stress, answering calls for culturally embedded organizational research and offering a template for other high-stress, resource-scarce sectors. Third, the study refines the theory on mediation pathways. PWB's partial—rather than full—mediation between QWL and ORS affirms broaden-and-build logic [101] yet al.so indicates that structural features (e.g., workload redistribution) can curb stress independently of employees' affective states. This dual pathway invites future work on moderators—such as individual resilience or institutional policy climate—that may intensify or attenuate each link. Together, these contributions extend both the reach and the precision of organizational-behavior theory while offering actionable insights for academic leaders seeking to cultivate healthy, high-performing faculties.

Practical implications

The study's findings offer actionable strategies for university administrators, policymakers, and organizational leaders. Foremost, they highlight the imperative of systemic over piecemeal interventions. The evidence suggests that a high quality of work life can create a positive ripple effect, leading to improved psychological well-being, reduced stress, and ultimately, increased organizational citizenship behavior. This can benefit both employees and organizations, creating a more positive and productive work environment.

Work overload and lack of control are major contributors to stress and burnout [102–104]. QWL initiatives like flexible work arrangements, manageable workloads, and autonomy can alleviate these pressures, fostering a sense of well-being [105]. Positive well-being equips individuals with better emotional regulation skills and a more optimistic outlook [106], making them less susceptible to stress and negative emotions at work. Strong social connections with colleagues and supportive management are crucial for emotional well-being. QWL practices like team building [107], recognition programs [108], and open communication channels can cultivate these positive relationships [109]. When employees are less stressed and feel valued, they are more likely to be motivated and engaged in their work [59, 110]. This translates into greater effort, initiative, and willingness to go beyond their job descriptions. Reduced stress allows individuals to have more emotional bandwidth to help others and engage in prosocial behaviors, which are key components of OCB [56]. This fosters a sense of organizational commitment [111, 112] and encourages helping behaviors.

A study on the participatory physical and psychosocial IGLO group intervention found no statistically significant difference in well-being and mental health outcomes between the intervention and control groups [113]. Among the explanations proposed by the authors, two are particularly salient— first, the action plans developed by participants did not sufficiently correspond with the intervention's intended outcomes; and second, participation in workshops and the implementation of activities inadvertently increased the workload of employees, thereby potentially exacerbating their recovery challenges and overall well-being. These findings emphasize the necessity of ensuring that intervention content is closely aligned with employees' targeted outcomes, and that careful attention is given to minimizing any additional workload or stress during implementation, particularly for employees already experiencing high work demands.

Limitations and future research recommendations

This study acknowledges several limitations that warrant further investigation to enhance the robustness of our findings and recommendations. A major limitation of the present study is its cross-sectional design, which limits our ability to make causal inferences. Although the path model and mediation analyses were theoretically guided and consistent with prior literature, it remains possible that alternative explanations or reverse causality exist. For example, employees who exhibit higher levels of OCB may also be more likely to perceive their work environment positively or experience less stress. Some studies have shown that employees who engage in high levels of OCB alongside their formal job roles may experience work overload and role conflict leading to increased stress perception [114, 115]. Future research should adopt longitudinal or experimental designs to more rigorously assess causal directions and validate the hypothesized ripple effect. Only through such designs can we establish the temporal ordering of variables and evaluate the effectiveness of workplace interventions aimed at enhancing QWL.

Additionally, our study did not explore the possibility of a reverse or reciprocal relationship between OCB and ORS. While our hypothesized model was informed by theoretical frameworks that position stress as a precursor to voluntary work behaviors, some literature suggests that engaging in high levels of OCB—particularly when performed consistently and beyond one's formal role—can lead to increased stress, burnout, or role overload [58]. Although our data did not examine this alternate directionality, we acknowledge that OCB may, in some cases, contribute to perceived role stress. Future studies should consider testing these bidirectional pathways

using longitudinal designs to better capture the dynamic interplay between stress and organizational behavior over time.

Our research focused solely on one profession, namely teachers in higher education, as well as their representativeness may be compromised by the inherent limits of purposive sampling. This narrow scope may limit the generalizability of our findings to other professions or sectors. Future studies should endeavor to include a diverse range of professions to better understand how quality of work life impacts various occupational groups. Additionally, while our study examined the effects of quality of work life on psychological wellbeing, role stress, and organizational citizenship behavior, other important outcome variables warrant investigation. Employee commitment, retention, intention, and productivity are critical indicators of organizational effectiveness and employee satisfaction. Further investigation should assess whether investments in improving the quality of work-life yield positive outcomes across these dimensions.

Conclusion

This study advances a holistic understanding of how organizational conditions shape employee well-being and behavior through the ripple-effect model. By demonstrating that QWL's benefits cascade through PWB and ORS to foster OCB, it challenges fragmented approaches to workplace stress and underscores the need for systemic solutions. While the cross-sectional design cautions against causal claims, the theoretical and empirical consistency of the findings provides a robust foundation for future research and practice. For universities navigating the dual pressures of accountability and faculty retention, this study offers a roadmap: invest in QWL not as a perk, but as a strategic lever to unlock psychological and organizational resilience. Ultimately, the insights call for a paradigm shift—from treating stress as an individual liability to addressing it as a collective opportunity for institutional transformation.

Supplementary Information

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Supplementary Material 1

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Author contributions
RLD and TG conceptualized the study and both analyzed the data. RLD wrote and edited the manuscript. RG collected the data and reviewed the manuscript.

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Data availability
All data generated or analysed during this study are included in this published article as supplementary file.

Declarations

Ethics approval and consent to participate
This study was conducted in accordance with the 1964 Helsinki Declaration, its later amendments, or comparable ethical standards. The study protocol and procedures were approved by the Human Research Ethics. Committee of the Kazi Nazrul University (Ref No.: KNU/HREC/CC/2/2022). Written informed consents were obtained from all the participants before their recruitment in this study.

Consent for publication
Not applicable.

Competing interests
The authors declare no competing interests.

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