



# Compensation, Role Conflict, and Work Stress on Turnover Intention: The Mediating Role of Work Engagement

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## Abstract

**Background:** Employee turnover can disrupt hospital staffing and service continuity. This study examined whether work engagement mediated the associations of compensation, role conflict, and work stress with turnover intention among employees of Toeloengredjo Hospital, Kediri. **Methods:** A cross-sectional survey included 159 of 265 permanent employees selected by simple random sampling. Five constructs were measured with self-report questionnaires. Pearson correlations and path analysis were conducted in Stata. Indirect effects were products of coefficients and tested using an approximate first-order delta method. **Results:** Compensation ( $b = 0.150$ ,  $p = 0.049$ ) and work stress ( $b = 0.146$ ,  $p = 0.017$ ) were positively associated with engagement; role conflict was not ( $p = 0.277$ ). Role conflict ( $b = 0.176$ ,  $p = 0.001$ ) and engagement ( $b = 0.687$ ,  $p < 0.001$ ) were positively associated with turnover intention. The approximate indirect effect was supported for work stress (0.100, 95% CI 0.017 to 0.184,  $p = 0.019$ ), but not compensation ( $p = 0.052$ ) or role conflict ( $p = 0.277$ ). **Conclusion:** The work stress pathway was indirect-only, but the positive engagement-turnover path contradicts theory and requires verification of item scoring. Cross-sectional data do not establish causal mediation.

**Keywords:** compensation, role conflict, work stress, work engagement, turnover intentio

## 1. Introduction

Voluntary turnover and employees' intention to leave can destabilize staffing, increase replacement costs, and disrupt continuity of service. These concerns are pronounced in health services, where vacancies may be difficult to replace and turnover intention is a recognized precursor to actual withdrawal (Mobley, 1982; Lay & Masingboon, 2025).

Compensation, role conflict, and work stress represent distinct features of the employment context. Compensation can function as a job resource when employees perceive rewards as adequate and equitable (Fulmer et al., 2023). Role conflict arises when employees face incompatible expectations and has been linked to emotional exhaustion in health-care settings (Rizzo et al., 1970; Mwakyusa & Mcharo, 2024). Work stress reflects pressure that may consume psychological resources and impair employee functioning (Chen et al., 2022). Within job demands-resources theory, resources are expected to support motivation, whereas excessive demands may erode it (Demerouti & Bakker, 2023).

Work engagement is a positive work-related state characterized by vigor, dedication, and absorption (Bakker, 2022). Job resources generally show positive associations with engagement, while hindering demands tend to show negative associations; engagement is also usually associated with more favorable organizational outcomes (Mazzetti et al., 2023). Evidence among nurses indicates that stress and personal resources are related to engagement, but the mechanisms vary across settings (Cabrera-Aguilar et al., 2023). These relationships make work engagement a plausible mediator between job conditions and turnover intention, although mediation must be established from the indirect effect rather than inferred from separate significant paths.

At Toeloengredjo Hospital, an internal preliminary assessment recorded 30 resignations in the months preceding the study. Reported reasons included family needs and relocation, while management observed that resignations coincided with recruitment by nearby hospitals and often involved occupations with specialized competencies. Previous studies have examined individual links among compensation, role conflict, work stress, engagement, and turnover intention, but the combined indirect pathways have received less attention in regional

Indonesian hospitals. Testing these variables in one model can show whether turnover intention is associated primarily with job conditions themselves or with differences in work engagement.

This study examined the associations of compensation, role conflict, and work stress with turnover intention and assessed work engagement as a mediating variable. The prespecified expectations were that compensation would be positively associated with work engagement and negatively associated with turnover intention; role conflict and work stress would be negatively associated with work engagement and positively associated with turnover intention; and work engagement would be negatively associated with turnover intention. Indirect associations of each job-condition variable with turnover intention through work engagement were also tested

## 2. Materials and Methods

### 2.1 Study Design and Setting

This analytical observational study used a cross-sectional design and was conducted at Toeloengredjo Hospital, Kediri, Indonesia. The study population comprised 265 permanent employees, from whom 159 participants were selected using simple random sampling. Compensation, role conflict, and work-related stress were specified as predictor variables, work engagement as the mediating variable, and turnover intention as the outcome. Given the cross-sectional design, all estimated relationships were interpreted as associations rather than causal effects.

### 2.2 Measures

Data were collected using self-administered Likert-type questionnaires assessing compensation, role conflict, work-related stress, work engagement, and turnover intention. Total scores for each construct were treated as continuous variables. Categorical labels used in the original analysis were not retained because validated cut-off values were unavailable.

### 2.5 Statistical Analysis

Data were analyzed using Stata. Continuous variables were summarized using means, standard deviations, medians, ranges, and 95% confidence intervals (CIs), as appropriate. Bivariate associations were assessed using Pearson correlation coefficients. Path analysis was performed using two regression equations. Work engagement was first regressed on compensation, role conflict, and work-related stress. Turnover intention was then regressed on these three predictors and work engagement. The direct association ( $c'$ ) was obtained from the turnover-intention model, the indirect association was calculated as the product of paths  $a$  and  $b$  ( $ab$ ), and the total association was calculated as  $c' + ab$ . Indirect associations were evaluated using their 95% CIs rather than the significance of individual component paths (Preacher & Hayes, 2008; Zhao et al., 2010). Because individual-level data were unavailable during manuscript revision, standard errors were reconstructed from the reported 95% CIs, and indirect associations were estimated using a first-order delta-method approximation. Statistical significance was defined as a two-sided  $p < 0.05$  or a 95% CI excluding zero. Because the specified path model was saturated ( $df = 0$ ), global model-fit indices were not interpreted.

## 3. Results

**Table 1** Participant characteristics at Toeloengredjo Hospital (n = 159)

| Characteristics             | n   | %    |
|-----------------------------|-----|------|
| <b>Age</b>                  |     |      |
| < 30 years old              | 18  | 11,3 |
| 31-40 years old             | 83  | 52,2 |
| 41-50 years old             | 40  | 25,2 |
| >50 years old               | 18  | 11,3 |
| <b>Gender</b>               |     |      |
| Female                      | 122 | 76,7 |
| Male                        | 37  | 23,3 |
| <b>Education background</b> |     |      |
| Senior High School          | 16  | 10,2 |
| Diploma                     | 52  | 32,7 |
| Bachelor's Degree           | 90  | 56,5 |
| Master's Degree             | 1   | 0,6  |

| Characteristics       | n  | %    |
|-----------------------|----|------|
| <b>Profession</b>     |    |      |
| Pharmacy Staff        | 14 | 8,8  |
| Midwives              | 6  | 3,8  |
| Nurse                 | 76 | 47,8 |
| Non-Medical Staff     | 41 | 25,8 |
| Radiographers         | 1  | 0,6  |
| Medical Record Staff  | 5  | 3,1  |
| Laboratory Analyst    | 3  | 1,9  |
| Doctor                | 7  | 4,4  |
| Nutritionist          | 4  | 2,5  |
| Physiotherapy         | 2  | 1,3  |
| <b>Length of work</b> |    |      |
| < 1 year              | 3  | 1,9  |
| 1-5 year              | 21 | 13,2 |
| 6-10 year             | 38 | 23,9 |
| > 10 year             | 97 | 61   |

With regard to length of employment, most participants had worked at the hospital for more than 10 years (61.0%), while 23.9% had worked for 6–10 years. Only 13.2% had worked for 1–5 years, and 1.9% had worked for less than one year. Overall, the participant profile indicates that the study sample was dominated by female, bachelor's degree-educated employees, particularly nurses, and included a substantial proportion of employees with long-term work experience at Toeloengredjo Hospital.

**Table 2** Descriptive statistics for study variables (n = 159)

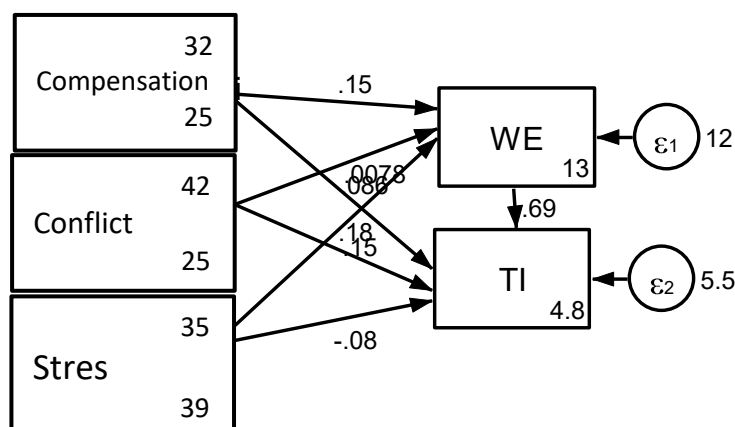
| Variables          | Mean  | Median | Min | Max | 95% CI Interval |       | SD    |
|--------------------|-------|--------|-----|-----|-----------------|-------|-------|
|                    |       |        |     |     | Lower           | Upper |       |
| Compensation       | 31,99 | 32,00  | 12  | 41  | 31,20           | 32,77 | 5,018 |
| Role conflicts     | 42,02 | 41,00  | 19  | 56  | 41,18           | 42,85 | 5,325 |
| Work stress        | 35,12 | 34,00  | 17  | 55  | 34,14           | 36,10 | 6,266 |
| Turnover Intention | 27,97 | 28,00  | 9   | 36  | 27,38           | 28,56 | 3,766 |
| Work Engagement    | 26,74 | 27,00  | 9   | 36  | 26,13           | 27,35 | 3,901 |

Based on Table 2, the compensation variable is in the category of quite good (mean = 31.99), while role conflict (mean = 42.02) and work stress (mean = 35.12) are in the category of quite high. Meanwhile, turnover intention (mean = 27.97) and work engagement (mean = 26.74) were in the medium category. In general, role conflicts and work stress tend to have higher values than other variables.

**Table 3** Pearson correlation matrix for study variables (n = 159)

| Variables          | Compensation | Role Conflict | Work stress | Turnover Intention | Work Engagement |
|--------------------|--------------|---------------|-------------|--------------------|-----------------|
| Compensation       | 1            | 0,680         | 0,594       | 0,394              | 0,411           |
| Role conflicts     | 0,680        | 1             | 0,680       | 0,455              | 0,407           |
| Work stress        | 0,594        | 0,680         | 1           | 0,347              | 0,428           |
| Turnover Intention | 0,394        | 0,455         | 0,347       | 1                  | 0,761           |
| Work Engagement    | 0,411        | 0,407         | 0,428       | 0,761              | 1               |

Table 3 The results of the Pearson correlation test show that all variables have a positive and significant relationship ( $p < 0.01$ ). The strongest relationship was between work engagement and turnover intention ( $r = 0.761$ ), while the other relationship was in the moderate to strong category. Overall, these results show an association between variables that can be followed up with multivariate analysis, especially to test the mediating role of work engagement.



**Figure 1** Model Suitability and Estimated Path Analysis

The results of the pathway analysis showed that compensation ( $b = 0.15$ ) and work stress ( $b = 0.15$ ) had a positive effect on work engagement, while role conflict had a weak positive effect ( $b = 0.086$ ). On turnover intention, work engagement had the strongest positive effect ( $b = 0.69$ ), followed by role conflict ( $b = 0.18$ ), while compensation had a very small effect ( $b = 0.008$ ) and work stress had a weak negative effect ( $b = -0.08$ ). Overall, work engagement plays a role as the main intervening variable in the model.

**Table 4** Path coefficients for work engagement and turnover intention ( $n = 159$ )

| Dependent Variable                                                       |   | Independent Variable | Koef jalur (b) | CI 95%      |             | p value |
|--------------------------------------------------------------------------|---|----------------------|----------------|-------------|-------------|---------|
|                                                                          |   |                      |                | Lower Limit | Upper Limit |         |
| Work Engagement (WE)                                                     | ← | Compensation         | 0,150          | 0,000       | 0,299       | 0,049   |
|                                                                          | ← | Role conflicts       | 0,086          | -0,069      | 0,240       | 0,277   |
|                                                                          | ← | Work stress          | 0,146          | 0,026       | 0,265       | 0,017   |
| Turnover Intention (TI)                                                  | ← | Work engagement      | 0,687          | 0,581       | 0,794       | 0,000   |
|                                                                          | ← | Compensation         | 0,008          | -0,096      | 0,111       | 0,882   |
|                                                                          | ← | Role conflicts       | 0,176          | 0,070       | 0,282       | 0,001   |
|                                                                          | ← | Work stress          | -0,080         | -0,164      | 0,003       | 0,058   |
| N observation = 159                                                      |   |                      |                |             |             |         |
| LR test of model vs. saturated: $\chi^2(0) = 0.00$ , Prob > $\chi^2 =$ . |   |                      |                |             |             |         |

Based on table 4, the results of the pathway analysis showed that compensation ( $b = 0.150$ ;  $p < 0.05$ ) and work stress ( $b = 0.146$ ;  $p < 0.05$ ) had a positive and significant effect on work engagement, while role conflicts were not significant. On turnover intention, work engagement ( $b = 0.687$ ;  $p < 0.05$ ) and role conflict ( $b = 0.176$ ;  $p < 0.05$ ) had a positive and significant effect, while compensation and work stress were not significant. Overall, work engagement plays an important intervening variable in the research model.

## 4. Discussion

### 4.1 Interpretation of the principal findings

The adjusted path model produced three central findings. Compensation and work stress were positively associated with work engagement; role conflict and work engagement were positively associated with turnover intention; and only the work stress indirect pathway met the approximate criterion for mediation. Because the study was cross-sectional, these paths represent conditional associations rather than temporal or causal effects.

The positive compensation-engagement coefficient is consistent with the view of compensation as a job resource that may communicate organizational recognition and support motivation (Demerouti & Bakker, 2023; Fulmer et al., 2023). Its small coefficient and null direct association with turnover intention indicate that

compensation alone did not account for employees' intention to leave in the adjusted model. This differs from evidence in which compensation and job stress were related to turnover intention through job satisfaction (Ramlah et al., 2021), suggesting that the relevant psychological pathway may depend on the mediator and organizational context.

Role conflict retained a positive direct association with turnover intention but was not associated with work engagement after the other predictors were included. This pattern is compatible with role theory, which treats incompatible expectations as a source of strain, and with evidence linking role conflict to emotional exhaustion and turnover intention (Rizzo et al., 1970; Mwakyusa & Mcharo, 2024; Rizal et al., 2025). The result supports attention to task boundaries, reporting lines, and conflicting instructions, but it does not demonstrate that changing these conditions will reduce turnover.

Work stress showed a positive coefficient for work engagement and a small negative, nonsignificant direct coefficient for turnover intention. The positive first path differs from the usual expectation that sustained stress consumes resources and lowers engagement (Chen et al., 2022; Cabrera-Aguilar et al., 2023). The questionnaire may have captured activating challenge demands, but the study did not distinguish challenge from hindrance stressors. Adaptation, coping capacity, or eustress should not be asserted from these data because those constructs were not measured.

The relatively high correlations among predictors, including  $r = 0.680$  for role conflict with both compensation and work stress, may also have altered adjusted coefficient magnitudes or directions. Collinearity diagnostics were not reported, so suppression cannot be excluded.

#### **4.2 Unexpected positive work engagement-turnover intention path**

The strongest coefficient in the model was the positive association between work engagement and turnover intention ( $b = 0.687$ ), consistent with their large positive bivariate correlation ( $r = 0.761$ ). This direction conflicts with the prevailing conceptualization of engagement as a motivational state associated with favorable work outcomes (Bakker, 2022; Mazzetti et al., 2023). It is therefore a result requiring verification, not a basis for concluding that engagement increases employees' intention to leave.

The first verification step is an item-level audit. The original questionnaire, response anchors, reverse-coded items, value labels, and syntax used to calculate total scores should be compared with the analysis dataset. A reversed turnover-intention scale, miscoded engagement items, or a total score whose direction differs from its label could produce an apparently positive path. Scale reliability and construct validity should then be re-evaluated, including whether the two measures contain conceptually overlapping items.

If the positive coefficient remains after that audit, its interpretation should remain limited to this sample. Explanations based on a dual effect of engagement, employability, unmet career expectations, or readiness for mobility were removed because these constructs were not measured and the cited literature did not directly test those mechanisms in this setting.

#### **4.3 Mediation, implications, and limitations**

Mediation was reassessed from the product of coefficients. The approximate work stress indirect effect was 0.100 and its confidence interval excluded zero, while its direct path was not significant; this is an indirect-only pathway rather than partial mediation (Zhao et al., 2010). The compensation indirect effect was borderline but did not meet the prespecified threshold, and the role conflict indirect effect was not supported. These classifications are provisional because the indirect-effect standard errors were reconstructed from rounded confidence intervals. Bias-corrected bootstrap confidence intervals from the original data are needed for the final analysis (Preacher & Hayes, 2008).

For hospital management, role clarification is the finding most directly connected to turnover intention. Reviewing job descriptions, escalation routes, and inconsistent task demands is more closely aligned with the observed model than a general strategy to increase engagement. Compensation and workload policies remain relevant to employee experience, but intervention priorities should not be inferred from coefficient size alone (Anglin et al., 2022; Mwakyusa & Mcharo, 2024).

Several limitations constrain interpretation. The single-hospital sample limits generalizability. Cross-sectional self-report data cannot establish temporal ordering and are susceptible to common-method bias. Potential confounders such as occupation, tenure, age, work unit, shift pattern, pay grade, and external job opportunities were not included in the reported model. The model was saturated, precluding an informative global fit test, and

collinearity diagnostics were unavailable. Instrument descriptions, scoring rules, validity results, and reliability coefficients must be completed before resubmission.

A longitudinal design with repeated measures and verified scale coding would provide a stronger test of whether changes in compensation, role conflict, or stress precede changes in engagement and turnover intention. Until those checks are completed, the positive engagement-turnover coefficient should be reported as an unexpected association rather than an organizational mechanism.

## 5. Conclusions

Among permanent employees at one regional hospital, role conflict was directly associated with stronger turnover intention, while the available coefficients supported an indirect-only pathway from work stress through work engagement. The positive association between work engagement and turnover intention ran counter to the theoretical model and must be checked against the original questionnaires, reverse-coding rules, and score-construction syntax before it is interpreted. The cross-sectional design supports association, not causal mediation. Management responses should prioritize role clarity and a review of working conditions, while the mediation analysis should be repeated with bootstrap confidence intervals from the original data.

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## Ethical considerations

This study was approved by the Health Research Ethics Committee of STRADA Indonesia University (No. 0523433/EC/KEPK/I/04/2026).

## Conflict of Interest

There is no conflict of interest.

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