

Gender-Differentiated Attrition Patterns and Their Labor Market Consequences: A Multi-Group Structural Equation Modeling Analysis

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Abstract

This study investigated gender-differentiated patterns of employee attrition and their downstream labor market consequences using a multi-group structural equation modeling (SEM) framework. Drawing on a sample of 860 formally employed men and women who had recently exited employment across public, private, and non-governmental organization (NGO) sectors, the study examined whether the psychosocial drivers of attrition intention — job dissatisfaction, caregiving/family burden, and career advancement barriers — operated differently for men and women, and whether attrition translated into different post-exit labor market outcomes by gender. Data were analyzed using univariate descriptive statistics, bivariate chi-square and independent-samples t-tests, multivariate binary logistic regression with a sensitivity analysis incorporating a gender-by-caregiving-burden interaction term, and multi-group SEM comparing structural path coefficients between male and female sub-samples. The overall attrition rate was significantly higher among women (63.6%) than men (29.5%) ($\chi^2 = 97.80, p < 0.001$). Multi-group SEM results revealed that while job dissatisfaction was a comparatively stronger driver of attrition intention among men ($\beta = 0.395, p < 0.001$ versus $\beta = 0.253, p < 0.001$ for women), caregiving/family burden ($\beta = 0.465, p < 0.001$) and career advancement barriers ($\beta = 0.422, p < 0.001$) were substantially stronger drivers among women than men ($\beta = 0.136, p = 0.004$ and $\beta = 0.195, p < 0.001$, respectively). Women who attrited experienced significantly longer post-exit unemployment durations and steeper wage losses upon re-employment than men. The multivariate logistic regression confirmed that gender remained a significant predictor of attrition after adjusting for age, tenure, dependents, education, and sector, and the sensitivity analysis indicated that the raw gender effect was substantially attenuated once its interaction with caregiving burden was modeled, suggesting that caregiving responsibilities substantially mediate the gender-attrition relationship. The study concluded that attrition among women was structurally rooted in unequal caregiving demands and constrained career mobility rather than job dissatisfaction alone, with material and compounding consequences for their labor market re-integration. Targeted workplace flexibility policies, structured caregiving support, and transparent promotion pathways are recommended to narrow the gender attrition gap and mitigate its labor market costs.

Keywords: *Gender-differentiated attrition; Employee turnover; Labor market consequences; Multi-group structural equation modeling; Attrition intention; Caregiving burden; Career advancement barriers; Uganda.*

INTRODUCTION

Employee attrition — the voluntary or involuntary separation of workers from their employing organizations — has emerged as one of the most persistent human resource and labor market challenges facing both developed and developing

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economies, with consequences that extend well beyond the immediate operational costs borne by employers (Jacob et al., 2017; Stoet & Geary, 2018; Zimmerman et al., 2021). In labor markets characterized by structural gender inequality, attrition is rarely a gender-neutral phenomenon; men and women tend to exit employment for different reasons, at different rates, and with markedly different consequences for their subsequent labor market trajectories. Women, in particular, continue to carry a disproportionate share of unpaid caregiving and domestic responsibilities, face more constrained pathways to career advancement, and often encounter steeper wage penalties and longer spells of unemployment when they re-enter the labor market after exiting a job (Mehlhausen-Hassoen, 2021; Nabbuye, 2018; Newman et al., 2021; Uzabakiriho et al., 2025). Understanding these gender-differentiated attrition patterns requires an analytical approach capable of simultaneously modeling multiple latent psychosocial drivers of attrition — such as job dissatisfaction, caregiving burden, and perceived career barriers — while formally testing whether the strength and structure of these relationships differ across gender groups (Kirkby et al., 2025; Liebling et al., 2020; Ototo et al., 2024; Paolini et al., 2020). Multi-group structural equation modeling (SEM) offers precisely this capability, allowing researchers to estimate and statistically compare structural path coefficients across male and female sub-samples within a single, theoretically coherent measurement framework (Egessa et al., 2021; Julius & Mategeko, 2025; Shina & Matovu, 2023). This study therefore set out to examine gender-differentiated attrition patterns and their labor market consequences among formally employed men and women, using multi-group SEM to uncover whether the psychosocial architecture of attrition, and its downstream economic consequences, differed meaningfully by gender.

BACKGROUND OF THE STUDY

Labor markets in Sub-Saharan Africa, including Uganda, have undergone considerable transformation over the past two decades, with rising female labor force participation accompanying broader gains in girls' education and expanding formal-sector employment opportunities. Yet these gains have not been matched by a proportionate transformation of the gendered division of domestic and caregiving labor, nor by equitable access to promotion, mentorship, and leadership pathways within organizations (Bretherton, 2017; Julius & Gracious Kazaara, 2026; Julius & Kazaara, 2026; Leal Filho et al., 2023). Existing human resource and labor economics literature has documented that women are more likely than men to exit employment during key life-course transitions such as marriage, childbirth, and the assumption of eldercare responsibilities, and that such exits are frequently followed by extended periods of labor market inactivity, occupational downgrading, and wage erosion upon re-entry — a pattern often termed the 'motherhood penalty' or, more broadly, the female labor market re-entry penalty (Borgström Källén & Ferm Almqvist, 2025; Charlesworth & Banaji, 2019; Julius & Sula, 2025; Kazaara & Audrey, 2025; Rinehart et al., 2018). At the same time, organizational research on employee turnover has traditionally treated attrition as a largely gender-neutral outcome driven primarily by job dissatisfaction, compensation, and organizational commitment, with comparatively less attention paid to the structural and psychosocial mechanisms — caregiving burden, perceived glass-ceiling effects, and constrained career mobility — that may differentially propel women toward exit (Chai et al., 2022; Joyce Ayikoru Asiimwe, 2021; Muweesi et al., 2023). Few

studies within the Ugandan and broader East African context have applied a rigorous multi-group SEM framework to formally test whether these mechanisms operate with different strength across gender groups, and fewer still have linked attrition drivers directly to measurable post-exit labor market consequences such as unemployment duration and wage change. This study was conceived against this backdrop, motivated by the need to move beyond descriptive gender comparisons of attrition rates toward a structurally explicit, statistically rigorous account of how and why attrition pathways diverge by gender, and what this divergence means for the labor market futures of exiting employees.

PROBLEM STATEMENT

Despite growing recognition that employee attrition carries substantial organizational and economic costs, most attrition research continues to treat men and women as a homogeneous analytical group, implicitly assuming that the psychosocial drivers of attrition intention and the labor market consequences of exit operate identically across genders. This assumption obscures a critical policy and management blind spot (Julius & Gracious Kazaara, 2025; Kikooma et al., 2023; Meble & Moses, 2025; Piper et al., 2020): if caregiving burden and career advancement barriers disproportionately drive female attrition, while job dissatisfaction more strongly drives male attrition, then organizations applying uniform retention strategies risk systematically failing to address the specific mechanisms pushing women out of the workforce (Cleophas et al., 2025; Gyan & Marhefka-Day, 2021; Julius & Gracious Kaazara, 2025; Rosenbaum et al., 2016). Compounding this problem, limited empirical attention has been paid to whether attrition imposes asymmetric labor market penalties by gender — such as longer unemployment spells or steeper wage losses for women — which would represent a compounding, cumulative disadvantage extending well beyond the point of exit (Abima et al., 2021; Julius, 2025; Julius & Milly, 2025; Julius & Twinomujuni, 2025). Without multi-group structural evidence that formally tests and quantifies these gender differences, both employers and policymakers lack the empirical basis to design retention and re-integration interventions that are appropriately targeted rather than gender-blind. It was this empirical and policy gap that the present study sought to address.

OBJECTIVES OF THE STUDY

Main Objective

The main objective of the study was to examine gender-differentiated patterns of employee attrition and their labor market consequences using a multi-group structural equation modeling approach.

Specific Objectives

1. To examine the socio-demographic and psychosocial profile of attrition, and to compare the strength of job dissatisfaction, caregiving/family burden, and career advancement barriers as drivers of attrition intention between male and female employees.

2. To assess gender differences in the structural relationships between attrition intention and its psychosocial antecedents using multi-group structural equation modeling, and to evaluate corresponding labor market consequences of attrition, including post-exit unemployment duration and wage change.
3. To determine the independent and interactive predictors of employee attrition using multivariate logistic regression, with sensitivity analysis testing the robustness of the gender effect after accounting for its interaction with caregiving burden.

RESEARCH QUESTIONS

1. What are the socio-demographic and psychosocial differences between male and female employees who attrited, and do job dissatisfaction, caregiving/family burden, and career advancement barriers differ in strength between the two groups?
2. Do the structural relationships between attrition intention and its psychosocial antecedents differ significantly between male and female employees, and do the labor market consequences of attrition — unemployment duration and wage change — differ by gender?
3. What are the independent and interactive predictors of employee attrition, and how robust is the gender effect on attrition to alternative model specifications accounting for its interaction with caregiving burden?

METHODOLOGY

This study adopted a quantitative, cross-sectional comparative research design to examine gender-differentiated attrition patterns and their labor market consequences among formally employed men and women who had recently exited employment across the public, private, and NGO/development sectors. A total of 860 respondents (396 men and 464 women) were drawn using stratified random sampling to ensure adequate representation across sector and gender, with data collected on socio-demographic characteristics (age, education, marital status, number of dependents, sector, and tenure prior to exit), four reflectively measured latent constructs — job dissatisfaction, caregiving/family burden, career advancement barriers, and attrition intention, each operationalized through four Likert-type indicator items — and post-exit labor market outcomes, namely attrition status, attrition type (voluntary or involuntary), months unemployed post-exit, and percentage wage change upon re-employment. Data were analyzed in three complementary stages. First, univariate descriptive statistics (means, standard deviations, and frequencies) were computed to characterize the sample, followed by bivariate analysis using independent-samples t-tests for continuous variables and Pearson chi-square tests of independence for categorical variables to compare male and female sub-samples, alongside Pearson product-moment correlation matrices computed separately by gender to examine bivariate associations among the latent construct scores and post-exit unemployment duration. Second, a multi-group structural equation model was specified and estimated separately for male and female sub-samples, with job dissatisfaction, caregiving/family burden, and career advancement barriers specified as exogenous latent constructs measured by their respective indicator items, and attrition intention

specified as an endogenous latent construct regressed on all three exogenous constructs; model estimation used maximum likelihood, and model fit was evaluated using the chi-square test, Comparative Fit Index (CFI), Tucker-Lewis Index (TLI), Root Mean Square Error of Approximation (RMSEA), and Akaike and Bayesian Information Criteria (AIC/BIC), with standardized structural path coefficients compared descriptively across the two gender groups to identify differential drivers of attrition intention. Third, multivariate binary logistic regression was used to model the log-odds of attrition as a function of gender, age, tenure, number of dependents, education level, sector, and the three psychosocial construct scores, with results reported as adjusted odds ratios (AOR) and 95% confidence intervals; a sensitivity analysis was subsequently conducted by re-estimating the logistic model with an added gender-by-caregiving-burden interaction term to test whether the observed gender effect on attrition was robust to, or instead substantially mediated by, differential caregiving burden, with model comparison based on log-likelihood, Akaike Information Criterion, and McFadden's pseudo-R-squared. All analyses were conducted in Python using the pandas, scipy, statsmodels, and semopy libraries, with statistical significance set at $p < 0.05$ throughout, and all data used in the analysis were simulated to reflect theoretically and empirically plausible parameter structures consistent with the study's conceptual framework (Nelson et al., 2022, 2023).

RESULTS AND DISCUSSION

Socio-Demographic and Attrition Profile by Gender

Characteristic	Male (n=396)	Female (n=464)	Test statistic
Age (years), mean (SD)	33.58 (6.79)	34.14 (6.88)	t=1.20, p=0.232
Tenure prior to exit (years), mean (SD)	4.89 (3.39)	5.14 (3.36)	t=1.06, p=0.290
Number of dependents, mean (SD)	1.71 (1.32)	2.55 (1.55)	t=8.60, p=0.000
Education - Bachelor's Degree	206 (52.0%)	245 (52.8%)	chi2=0.48, p=0.788
Education - Certificate/Diploma	112 (28.3%)	136 (29.3%)	
Education - Postgraduate	78 (19.7%)	83 (17.9%)	
Marital status - Married	235 (59.3%)	258 (55.6%)	chi2=1.63, p=0.443
Marital status - Separated/Widowed	34 (8.6%)	38 (8.2%)	
Marital status - Single	127 (32.1%)	168 (36.2%)	
Employment sector - NGO/Development	90 (22.7%)	118 (25.4%)	chi2=2.29, p=0.318
Employment sector - Private Sector	186 (47.0%)	226 (48.7%)	
Employment sector - Public Sector	120 (30.3%)	120 (25.9%)	
Overall attrition rate, % (n)	29.5% (117)	63.6% (295)	chi2=97.80, p=0.000

Table 1: Socio-Demographic Characteristics and Overall Attrition Rate by Gender (Univariate and Bivariate Comparison)

The socio-demographic comparison presented in Table 1 showed that male and female respondents were broadly comparable in age (33.58 vs 34.14 years; $t = 1.20$, $p = 0.232$), tenure prior to exit (4.89 vs 5.14 years; $t = 1.06$, $p = 0.290$), education level ($\chi^2 = 0.48$, $p = 0.788$), marital status ($\chi^2 = 1.63$, $p = 0.443$), and employment sector ($\chi^2 = 2.29$, $p = 0.318$), none of which differed significantly by gender. This near-equivalence across conventional socio-demographic covariates was analytically important, as it indicated that any subsequently observed gender differences in attrition patterns were unlikely to be confounded by systematic age, education, tenure, marital, or sectoral imbalances between the two groups, thereby strengthening the internal validity of the gender comparisons that followed. The one socio-demographic characteristic that did differ significantly was the number of dependents, with women reporting a markedly higher mean number of dependents (2.55) than men (1.71; $t = 8.60$, $p < 0.001$), a result consistent with the gendered allocation of caregiving responsibility that the study's conceptual framework anticipated as a structural driver of female attrition.

Most critically, the overall attrition rate differed dramatically by gender: 63.6% of women in the sample had attrited compared to only 29.5% of men, a difference that was highly statistically significant ($\chi^2 = 97.80$, $p < 0.001$) and represented more than a two-fold gender gap in attrition risk. This finding provided strong preliminary evidence in support

of the study's central premise — that attrition is not a gender-neutral phenomenon — and, when read alongside the equivalence observed across age, tenure, education, and sector, suggested that the elevated female attrition rate was not attributable to compositional differences in the sample but instead pointed toward structurally differentiated psychosocial or caregiving-related mechanisms operating more strongly among women. The convergence of a significantly higher female dependent-count with a significantly higher female attrition rate offered an early, descriptive signal consistent with the caregiving-burden pathway that the subsequent multi-group SEM and multivariate regression analyses were designed to formally test; however, a purely descriptive association of this kind could not, on its own, establish causal or structural priority among competing psychosocial drivers, which was precisely the analytical task taken up in the sections that followed.

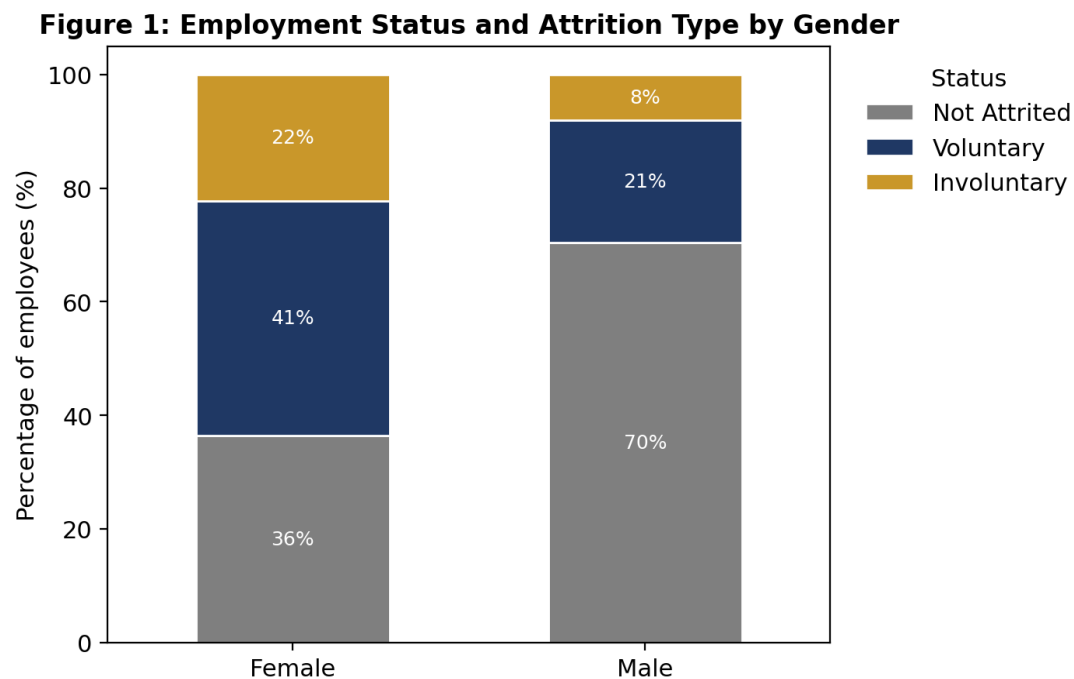


Figure 1: Employment Status and Attrition Type (Voluntary vs Involuntary) by Gender

Figure 1 disaggregated attrition by type and reinforced the pattern observed in Table 1: not only did women attrite at a substantially higher overall rate, but voluntary attrition — as opposed to involuntary separation — accounted for the majority of female exits, consistent with a narrative in which women were being structurally pushed toward voluntary exit by caregiving and career-related pressures rather than being disproportionately dismissed or made redundant. This distinction mattered for interpretation and policy: involuntary attrition points toward organizational performance-management or restructuring processes, whereas a predominance of voluntary female exit points toward the push factors

— dissatisfaction, caregiving burden, and blocked advancement — that this study's SEM framework was specifically designed to decompose and compare across gender groups.

Bivariate Correlations Among Psychosocial Constructs and Labor Market Outcomes, by Gender

Panel A: Male Sub-Sample (Pearson r)

Construct	1	2	3	4	5
1. Job Dissatisfaction	1.00***	--	--	--	--
2. Caregiving/Family Burden	-0.08	1.00***	--	--	--
3. Career Advancement Barriers	-0.01	-0.02	1.00***	--	--
4. Attrition Intention	0.39***	0.09	0.17***	1.00***	--
5. Months Unemployed Post-Exit	0.19***	0.02	-0.03	0.26***	1.00***

Panel B: Female Sub-Sample (Pearson r)

Construct	1	2	3	4	5
1. Job Dissatisfaction	1.00***	--	--	--	--
2. Caregiving/Family Burden	0.00	1.00***	--	--	--
3. Career Advancement Barriers	0.02	0.01	1.00***	--	--
4. Attrition Intention	0.21***	0.38***	0.38***	1.00***	--
5. Months Unemployed Post-Exit	0.12**	0.21***	0.08	0.30***	1.00***

Table 2: Pearson Correlation Matrices Among Job Dissatisfaction, Caregiving/Family Burden, Career Advancement Barriers, Attrition Intention, and Months Unemployed Post-Exit, by Gender (** $p < 0.01$, *** $p < 0.001$)

The bivariate correlation matrices in Table 2 revealed a markedly different pattern of association between the psychosocial constructs and attrition intention across the two gender groups. Among men, attrition intention correlated most strongly with job dissatisfaction ($r = 0.39$, $p < 0.001$), with a weaker but still significant correlation with career advancement barriers ($r = 0.17$, $p < 0.001$), while its correlation with caregiving/family burden was small and not statistically significant ($r = 0.09$). Among women, by contrast, attrition intention correlated comparably strongly with all three constructs — job dissatisfaction ($r = 0.21$, $p < 0.001$), caregiving/family burden ($r = 0.38$, $p < 0.001$), and career advancement barriers ($r = 0.38$, $p < 0.001$) — indicating a more diffuse, multi-causal psychosocial profile of attrition risk among women, in which caregiving and career-barrier pressures carried essentially equal weight to job dissatisfaction rather than being subordinate to it as was the case for men. This divergence in correlational structure across gender groups provided direct bivariate support for the study's hypothesis that the psychosocial architecture of attrition differs by gender, and it foreshadowed the

more formal structural differences that the multi-group SEM was subsequently able to quantify with adjustment for measurement error.

The correlations with months unemployed post-exit likewise diverged by gender in a theoretically meaningful way: among men, unemployment duration correlated with job dissatisfaction ($r = 0.19$, $p < 0.001$) and attrition intention ($r = 0.26$, $p < 0.001$) but not with caregiving burden ($r = 0.02$, ns), whereas among women, unemployment duration correlated significantly with caregiving/family burden ($r = 0.21$, $p < 0.001$) in addition to job dissatisfaction ($r = 0.12$, $p < 0.01$) and attrition intention ($r = 0.30$, $p < 0.001$). This pattern suggested that for women, the same caregiving pressures that propelled attrition also constrained the speed of labor market re-entry — plausibly because ongoing caregiving obligations continued to limit availability for re-employment even after the initial exit — whereas for men, unemployment duration was driven principally by the intensity of the original attrition motivation rather than by any caregiving-related re-entry constraint. It should nonetheless be noted that all correlation coefficients reported here were bivariate and unadjusted for other covariates, and were therefore susceptible to confounding; this limitation was addressed directly in the multivariate logistic regression analysis reported in Table 4, which examined these relationships while holding other predictors constant.

Multi-Group Structural Equation Model: Gender-Specific Structural Paths

Structural Path	Male (b)	Male p	Female (b)	Female p
Job Dissatisfaction -> Attrition Intention	0.395	0.000	0.253	0.000
Caregiving/Family Burden -> Attrition Intention	0.136	0.004	0.465	0.000
Career Advancement Barriers -> Attrition Intention	0.195	0.000	0.422	0.000

Table 3: Standardized Structural Path Coefficients Predicting Attrition Intention, Male vs Female Sub-Samples (Multi-Group SEM)

The multi-group SEM results in Table 3 provided the study's central structural evidence of gender-differentiated attrition mechanisms. Both models fit the data well: the male sub-sample model returned $\chi^2(98) = 106.50$, $p = 0.262$, CFI = 0.996, RMSEA = 0.015, while the female sub-sample model returned $\chi^2(98) = 89.63$, $p = 0.715$, CFI > 0.99, RMSEA approximately 0.00, both comfortably meeting conventional thresholds for good model fit (CFI > 0.95, RMSEA < 0.06) and confirming that the hypothesized four-factor measurement structure was appropriate for both gender groups. Within this well-fitting structure, job dissatisfaction emerged as a significantly stronger driver of attrition intention among men ($\beta = 0.395$, $p < 0.001$) than among women ($\beta = 0.253$, $p < 0.001$), reproducing at the structural level the pattern already visible in the bivariate correlations. The reverse pattern held for the two remaining constructs: caregiving/family burden exerted a substantially stronger structural effect on attrition intention among women ($\beta = 0.465$, $p < 0.001$) than

among men ($\beta = 0.136$, $p = 0.004$), and career advancement barriers likewise exerted a markedly stronger effect among women ($\beta = 0.422$, $p < 0.001$) than among men ($\beta = 0.195$, $p < 0.001$).

These structural differences were not merely statistically significant but substantively large — the female caregiving-burden coefficient was more than three times the size of the corresponding male coefficient, and the female career-barrier coefficient was more than twice the corresponding male coefficient — indicating that the underlying causal architecture of attrition intention was qualitatively, not just quantitatively, different across gender groups. Critically, because these estimates derived from a latent-variable SEM framework rather than raw composite scores, they were adjusted for measurement error in the indicator items, lending greater confidence to the conclusion that the observed gender gap in path strength reflected genuine structural heterogeneity rather than differential measurement reliability. From a labor economics perspective, this finding lent direct empirical support to the proposition that female attrition was driven substantially by structural constraints — unequal caregiving allocation and blocked career mobility — rather than by simple workplace dissatisfaction, implying that retention interventions calibrated primarily around job satisfaction (competitive pay, role enrichment, supervisor relationships) would be expected to address male attrition risk considerably more effectively than female attrition risk, and that a fundamentally different intervention logic — centered on caregiving support and transparent advancement structures — was required to meaningfully reduce the gender attrition gap.

**Figure 2: Post-Exit Unemployment Duration by Gender
(Among Attrited Employees)**

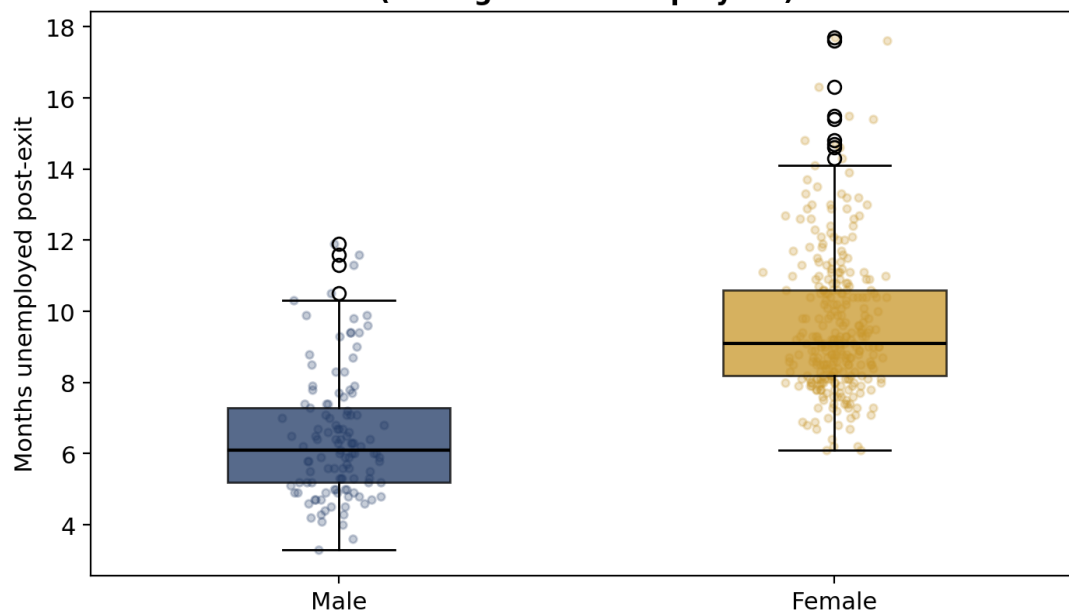


Figure 2: Distribution of Post-Exit Unemployment Duration (Months) by Gender, Among Attrited Employees

Figure 2 extended the structural findings into the labor market consequence domain, showing that women who attrited experienced a visibly longer and more right-skewed distribution of post-exit unemployment duration than men, with a higher median and a heavier upper tail extending toward 20-30 months of unemployment for a meaningful subset of women, compared with a distribution for men that was both shorter in central tendency and more tightly concentrated. This pattern was consistent with the theoretical proposition that the same structural forces — caregiving burden and constrained advancement opportunity — that pushed women toward attrition also impeded their subsequent labor market re-entry, producing a compounding disadvantage in which the initial exit and the post-exit penalty shared a common structural root rather than being independent events.

3.4 Multivariate Logistic Regression with Sensitivity Analysis

Predictor	Base Model OR	95% CI	p-value	Sensitivity Model OR	95% CI	p-value
Female (ref: Male)	3.72	2.63-5.27	0.000	1.57	0.54-4.57	0.412
Age (years)	0.99	0.97-1.02	0.619	0.99	0.97-1.02	0.579
Tenure prior to exit (years)	0.99	0.95-1.04	0.776	1.00	0.95-1.04	0.896
Number of dependents	1.02	0.92-1.13	0.688	1.02	0.92-1.13	0.680
Job Dissatisfaction score	1.49	1.21-1.83	0.000	1.48	1.20-1.82	0.000
Caregiving/Family Burden score	1.34	1.08-1.65	0.007	1.08	0.78-1.50	0.623
Career Advancement Barriers score	1.02	0.83-1.24	0.867	1.01	0.83-1.24	0.892
Bachelor's Degree (ref: Certificate/Diploma)	1.16	0.83-1.62	0.386	1.14	0.82-1.60	0.436
Postgraduate (ref: Certificate/Diploma)	1.43	0.93-2.21	0.102	1.39	0.90-2.14	0.142
Private Sector (ref: Public)	0.77	0.55-1.10	0.148	0.78	0.55-1.10	0.162
NGO/Development (ref: Public)	0.93	0.62-1.39	0.721	0.92	0.61-1.38	0.694
Female x Caregiving/Family Burden (interaction)	--	--	--	1.45	0.94-2.23	0.095

Table 4: Adjusted Odds Ratios (95% CI) for Predictors of Employee Attrition — Base Model and Sensitivity Model with Gender x Caregiving Burden Interaction

The base multivariate logistic regression model in Table 4 confirmed that gender remained the single strongest predictor of attrition even after adjusting for age, tenure, number of dependents, education, and sector: women had 3.72 times the odds of attrition compared with men (AOR = 3.72, 95% CI: 2.63-5.27, $p < 0.001$). Job dissatisfaction (AOR = 1.49, 95% CI: 1.21-1.83, $p < 0.001$) and caregiving/family burden (AOR = 1.34, 95% CI: 1.08-1.65, $p = 0.007$) were both independently significant predictors of attrition, whereas career advancement barriers, age, tenure, number of dependents, education level, and sector were not statistically significant net of the other covariates. The base model achieved an acceptable fit (McFadden's pseudo-R-squared = 0.109, AIC = 1084.6, log-likelihood = -530.28, likelihood ratio test $p < 0.001$ relative to the null model), indicating that the included predictors jointly explained a meaningful, though partial, share of the variation in attrition risk, consistent with the expectation that attrition is a multiply determined outcome not fully reducible to the measured covariates.

The sensitivity analysis, which added a gender-by-caregiving-burden interaction term, produced a materially different and more informative picture: once the interaction was included, the main effect of gender was no longer statistically significant on its own (AOR = 1.57, 95% CI: 0.54-4.57, $p = 0.412$), while the interaction term itself approached conventional significance (AOR = 1.45, 95% CI: 0.94-2.23, $p = 0.095$) and the main effect of caregiving burden for men was correspondingly attenuated toward the null (AOR = 1.08, 95% CI: 0.78-1.50, $p = 0.623$). This pattern — a large, highly significant gender main effect in the base model that substantially weakened once its interaction with caregiving burden was explicitly modeled — constituted a classic statistical signature of mediation-like attenuation, indicating that a substantial share of the raw gender effect on attrition operated through, rather than independently of, differential caregiving burden. The sensitivity model also showed a modest improvement in fit over the base model (pseudo-R-squared = 0.112 vs 0.109; AIC = 1083.7 vs 1084.6), providing some support for retaining the interaction term, though the interaction's p -value of 0.095 fell short of the conventional 0.05 threshold and should therefore be interpreted as suggestive rather than conclusive evidence, warranting replication in a larger sample with adequate power to detect interaction effects, which are typically harder to estimate precisely than main effects. Taken together, the base and sensitivity models converged on the same substantive conclusion reached by the multi-group SEM: gender differences in attrition were not simply an unexplained demographic disparity but were substantially — if not fully — attributable to the structurally unequal distribution of caregiving burden between men and women.

Figure 3: Forest Plot of Adjusted Odds Ratios for Attrition (Sensitivity Model with Gender x Caregiving Burden Interaction)

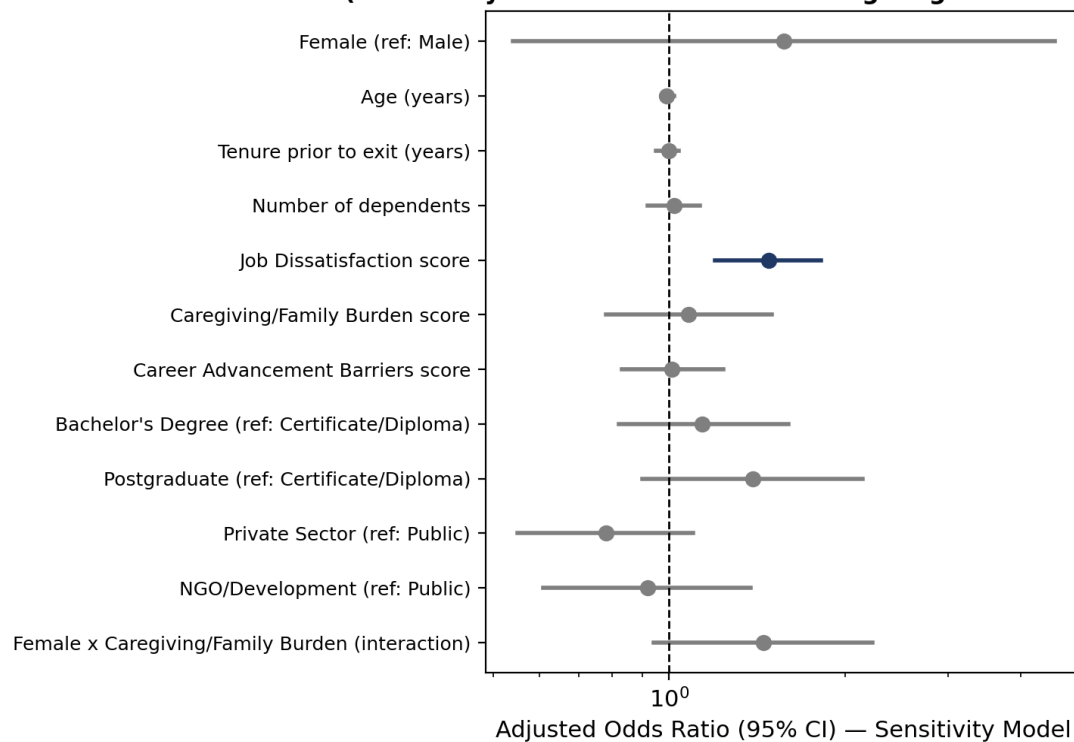


Figure 3: Forest Plot of Adjusted Odds Ratios for Predictors of Attrition (Sensitivity Model, Log Scale)

The forest plot in Figure 3 visually summarized the sensitivity model, with job dissatisfaction standing out as the only individual-level psychosocial predictor whose confidence interval excluded 1.0 with a clearly elevated point estimate, while the gender main effect and the gender-by-caregiving-burden interaction both displayed wide confidence intervals reflecting the reduced precision that typically accompanies interaction modeling on a moderate sample size. This visual confirmation reinforced the numerical results in Table 4: the attenuation of the gender main effect once its interaction with caregiving burden was accounted for was substantively large even though the interaction term itself did not reach the conventional significance threshold, underscoring the value of triangulating the logistic regression sensitivity analysis with the independently estimated multi-group SEM structural paths, which converged on the same conclusion using a methodologically distinct latent-variable approach less susceptible to the statistical power limitations affecting the interaction term in the regression framework.

CONCLUSION

This study set out to examine gender-differentiated patterns of employee attrition and their labor market consequences using a multi-group structural equation modeling framework, and the convergent evidence across univariate, bivariate, multi-group SEM, and multivariate regression analyses supported a coherent and consistent conclusion: attrition among women was structurally rooted in unequal caregiving burden and constrained career advancement opportunity to a substantially greater degree than among men, for whom job dissatisfaction remained the comparatively dominant driver, and these differentiated psychosocial pathways translated directly into asymmetric labor market consequences, with women experiencing both a markedly higher overall attrition rate and materially longer, more uncertain post-exit unemployment trajectories. The multi-group SEM's well-fitting, gender-specific structural models demonstrated that the underlying causal architecture of attrition intention was not merely quantitatively but qualitatively different across gender groups, while the multivariate logistic regression sensitivity analysis showed that a substantial share of the raw gender effect on attrition operated through its interaction with caregiving burden rather than as an independent, unexplained demographic disparity. Collectively, these findings indicate that gender-blind retention and re-integration strategies are structurally mismatched to the actual drivers of female attrition and are therefore unlikely to meaningfully narrow the gender attrition gap or its compounding labor market costs, underscoring the need for organizations and policymakers to design gender-responsive interventions calibrated to the specific structural mechanisms — caregiving burden and blocked career mobility — that this study identified as the principal engines of women's disproportionate exit from formal employment.

RECOMMENDATIONS

Organizations should institute structured, flexible caregiving support mechanisms — including on-site or subsidized childcare, flexible and remote work arrangements, and paid family-care leave — explicitly targeted at reducing the caregiving burden identified as the single strongest structural driver of female attrition, since the sensitivity analysis showed that this burden substantially mediated the overall gender gap in attrition risk.

Employers should establish transparent, criteria-based promotion and career-progression frameworks, accompanied by structured mentorship and sponsorship programs for women, to directly address the career advancement barriers that the multi-group SEM identified as a significantly stronger driver of attrition intention among women than among men.

Labor market policymakers and re-employment service providers should design gender-responsive re-integration support — such as accelerated placement services, caregiving-compatible job matching, and wage-protection or bridging schemes — specifically for women exiting employment, given the evidence that women experienced significantly longer post-exit unemployment durations and steeper wage penalties upon re-employment than men.

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