

WORK-FAMILY CONFLICT AND BURNOUT AMONG FEMALE UNIVERSITY TEACHERS IN PAKISTAN: A CROSS-SECTIONAL STUDY

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Abstract

Female faculty in Pakistani higher education operate at the intersection of escalating academic performance pressures and deeply gendered expectations for unpaid domestic and caregiving labor. Such cross-domain demands may generate work-family conflict (WFC), defined as inter-role conflict in which work and family pressures are mutually incompatible. This study examined the association between WFC and burnout, operationalized as emotional exhaustion, among female university teachers in Pakistan. A cross-sectional online survey recruited female faculty from multiple public and private universities nationwide ($n = 259$). WFC was measured using the Netemeyer et al. (1996) work-to-family conflict scale, and emotional exhaustion was assessed using established burnout items derived from Maslach and colleagues' framework (Maslach et al., 2001). Confirmatory factor analysis demonstrated acceptable measurement model fit ($CFI = 0.95$; $TLI = 0.94$; $RMSEA = 0.04$). Structural equation modeling indicated that WFC was positively associated with emotional exhaustion ($\beta = 0.54$, $p < 0.001$), explaining 29.34% of its variance ($R^2 = 0.29$). Findings align with the Conservation of Resources theory, suggesting that sustained cross-domain role pressures deplete finite emotional and energetic resources, culminating in exhaustion. Results underscore the importance of family-supportive organizational climates within Pakistani universities.

INTRODUCTION

Women's labor-force participation in Pakistan has expanded, yet structural inequalities remain pronounced, particularly in higher education leadership and senior academic roles (Ali et al., 2021). National indicators further suggest that women remain underrepresented among university teaching staff and are disproportionately responsible for unpaid domestic and caregiving work (Gallup Pakistan, 2023). These intersecting structural realities create conditions of "time poverty," where

professional role expansion occurs without a parallel redistribution of household responsibilities.

Within such contexts, work-family conflict (WFC) becomes especially salient. WFC is defined as a form of inter-role conflict in which participation in one role is made more difficult by virtue of participation in another (Greenhaus & Beutell, 1985). It may manifest through time-based, strain-based, or behavior-based mechanisms and can operate directionally (Carlson et al., 2000). In the present study, we focus on work-to-family conflict (work

interference with family). Burnout is conceptualized as a job-related syndrome arising from chronic workplace stress that has not been successfully managed (World Health Organization [WHO], 2019). The dominant framework identifies three dimensions: emotional exhaustion, depersonalization (or cynicism), and reduced professional efficacy (Maslach et al., 2001). Emotional exhaustion is widely regarded as the central component of burnout (Maslach et al., 2001).

Theoretical Framework of Study

The relationship between WFC and burnout is well explained by the Conservation of Resources (COR) theory (Hobfoll, 1989). COR posits that individuals strive to obtain, retain, and protect valued resources (e.g., time, emotional stability, energy). Stress occurs when resources are threatened or lost. Persistent WFC signals ongoing resource depletion, increasing vulnerability to exhaustion and potential loss spirals. Meta-analytic evidence consistently links WFC to adverse work, family, and health outcomes (Allen et al., 2000; Amstad et al., 2011). Notably, work-to-family conflict tends to relate strongly to work-related strain outcomes such as burnout, supporting domain-matching logic (Amstad et al., 2011).

Pakistani Context of Study

Qualitative research in Pakistan documents how women academics navigate intensifying academic demands alongside persistent caregiving expectations (Bashir & Khan, 2022; Sadaf et al., 2022). Women often report sleep disruption, mental fatigue, and

reduced personal recovery time. Quantitative studies in Punjab similarly identify WFC as a key predictor of reduced psychological well-being among female teachers (Akram & Chaudhary, 2020). Burnout among female faculty in Pakistan has also been documented, with demographic and workload factors contributing to symptom variability (Manzoor et al., 2019). However, integrated structural modeling of WFC and burnout within Pakistani higher education remains limited.

Research Framework and Hypothesis

As shown in Figure 1, the conceptual framework is grounded in the Conservation of Resources (COR) theory (Hobfoll, 1989). The model proposes that Work-Family Conflict (WFC) functions as a chronic cross-domain stressor. Sustained role incompatibility depletes emotional and energetic resources. Resource depletion manifests as emotional exhaustion, the core dimension of burnout (Maslach et al., 2001). The framework specifies a direct structural path from WFC to Emotional Exhaustion. Emotional exhaustion is modeled as a latent construct measured by established burnout items. WFC is modeled as a latent construct measured using Netemeyer et al.'s (1996) scale. No mediators or moderators were included in this baseline explanatory model. Furthermore, this study tests the following hypothesis:

- i. *Work-family conflict is positively associated with emotional exhaustion among female university teachers in Pakistan.*

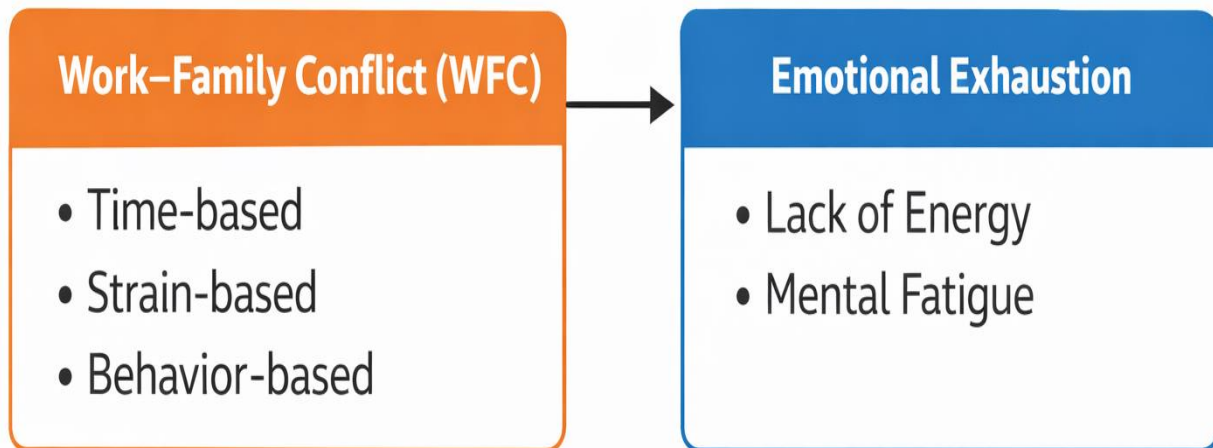


Figure 1: Research Framework of Study

Methodology

Research Design

A cross-sectional survey design was employed. Reporting aligns conceptually with STROBE guidance for observational research.

Participants and Procedure

Two universities from each major administrative unit of Pakistan were included in the institutional sampling frame (14 universities total). Female faculty across academic ranks were invited via professional networks and social media channels. A total of 286 responses were received. After excluding incomplete surveys, the final sample comprised 259 female faculty members. Mean age was 33.7 years (SD = 6.8), with mean teaching experience of 6.2 years. Participants were predominantly married (62%). Academic ranks included lecturer (58%), assistant professor (29%), associate professor (10%), and professor (3%).

Measures and Scale of Study

- i. *Work-Family Conflict*: Measured using the five-item work-to-family conflict scale by Netemeyer et al. (1996). Cronbach's $\alpha = 0.89$.
- ii. *Emotional Exhaustion*: Measured using established emotional exhaustion items from the Maslach burnout tradition (Maslach & Jackson, 1981; Maslach et al., 2001). Cronbach's $\alpha = 0.91$.

All items used a 5-point Likert scale.

Data Analysis

Confirmatory factor analysis (CFA) tested measurement validity. Structural equation modeling (SEM) tested the hypothesized direct path. Common-method bias considerations followed recommendations by Podsakoff et al. (2003).

Results

Table 1 presents the structural equation modeling results examining the association between work-family conflict and emotional exhaustion. The overall model demonstrated acceptable fit to the data. Fit indices met recommended thresholds, with a Comparative Fit Index (CFI) of 0.95 and Tucker-Lewis Index (TLI) of 0.94, both exceeding the conventional 0.90 criterion. The Root Mean Square Error of Approximation (RMSEA) was .04, indicating good model fit, and the χ^2/df ratio of 2.14 fell within acceptable limits for structural models. The structural path from work-family conflict to emotional exhaustion was positive and statistically significant ($\beta = 0.54$, SE = .06, CR = 8.72, $p < 0.001$). The magnitude of the standardized coefficient indicates a moderate-to-strong effect, suggesting that higher levels of perceived work interference with family responsibilities are associated with substantially higher levels of emotional exhaustion among female university

faculty. The model explained 29% of the variance in emotional exhaustion ($R^2 = 0.29$), indicating that work-family conflict accounts for a meaningful proportion of burnout-related strain in this sample. Although additional factors likely contribute to emotional exhaustion, the explanatory power observed here underscores the central role of cross-

domain role pressures in predicting burnout within the Pakistani higher education context. Overall, the findings provide empirical support for the hypothesized positive association between work-family conflict and emotional exhaustion.

Table 1: Structural Equation Modeling Results

Path	Standardized β	SE	CR	p-value	R ²
Work-Family Conflict → Emotional Exhaustion	.54	.06	8.72	< .001	.29
Fit Index	Value				
χ^2/df	2.14				
CFI	.95				
TLI	.94				
RMSEA	.04				

Discussion

This study demonstrates a substantial positive association between WFC and emotional exhaustion among female university teachers in Pakistan. Consistent with COR theory (Hobfoll, 1989), sustained cross-domain pressures likely drain emotional and energetic resources. In contexts where domestic labor expectations remain gendered and inflexible, professional demands may trigger cumulative resource loss, culminating in exhaustion. The observed effect size aligns with meta-analytic findings indicating that WFC is a meaningful predictor of strain outcomes (Allen et al., 2000; Amstad et al., 2011). Within Pakistan’s sociocultural context, characterized by persistent gender asymmetry in unpaid labor, these effects may be amplified.

Practical Implications

The findings suggest that universities seeking to mitigate burnout among female faculty must address work-family conflict at a structural level rather than relying solely on individual coping strategies.

Consistent with Conservation of Resources theory (Hobfoll, 1989), interventions may operate through two complementary mechanisms: (a) reducing resource drain and (b) increasing resource support.

i. First, institutions should implement policies that reduce unnecessary depletion of time and emotional resources. Realistic workload allocation is foundational. Transparent and equitable distribution of teaching, administrative, and supervisory responsibilities can prevent cumulative overload, particularly for early-career faculty who often occupy vulnerable academic positions. Protected meeting windows represent another practical intervention. Scheduling meetings within predictable hours and avoiding last-minute rescheduling can preserve boundary stability between professional and domestic domains. In contexts where caregiving responsibilities are non-negotiable, temporal unpredictability becomes a significant source of strain. Limits on after-hours communication are equally critical. Organizational norms that assume perpetual digital availability effectively extend the workday into domestic space, intensifying work-to-family conflict. Establishing formal or informal

expectations that routine communication should occur within designated work hours can substantially reduce role spillover and improve recovery opportunities.

- ii. Second, universities should strengthen resource availability through explicit support structures. Family-supportive supervisory behaviors such as flexibility during caregiving demands, empathetic communication, and proactive workload adjustments have been shown to buffer work-family conflict and related strain outcomes (Kossek et al., 2011). Beyond individual supervisors, institutions should cultivate explicit work-family supportive climates. Policies must be visibly endorsed by leadership to normalize flexible arrangements without stigma. When supportive practices are culturally embedded rather than discretionary, employees are more likely to utilize them without fear of career penalty.

Limitations and Future Directions

Several limitations should be acknowledged when interpreting the findings.

- i. First, the cross-sectional design precludes causal inference. Although theoretical reasoning grounded in Conservation of Resources theory (Hobfoll, 1989) supports the direction from work-family conflict to emotional exhaustion, the data cannot rule out alternative or reciprocal explanations. It is plausible, for example, that emotionally exhausted faculty experience diminished boundary management capacity, which may heighten perceptions of work-family conflict. Longitudinal or cross-lagged panel designs are required to clarify directionality and potential bidirectional processes.
- ii. Second, the use of single-source self-report measures raises the possibility of common method variance inflating observed associations (Podsakoff et al., 2003). Because both predictor and outcome variables were collected from the same respondents at a single time point, shared method bias cannot be fully excluded. Although work-family conflict and emotional exhaustion are inherently perceptual constructs and therefore appropriately measured via self-report, future research could incorporate multi-source or multi-method designs, such as administrative workload indicators, peer or partner reports, or time-diary methods.

- iii. Third, the nonprobability sampling approach limits generalizability. Participants were recruited through online networks and social media channels, which may overrepresent digitally engaged faculty or individuals experiencing higher levels of strain. The resulting sample, although drawn from multiple universities, cannot be assumed to represent all female faculty in Pakistan. Future studies would benefit from stratified or institutionally coordinated sampling procedures to enhance representativeness across regions, disciplines, and academic ranks.

Conclusion

This study provides empirical evidence that work-family conflict is a significant and meaningful predictor of emotional exhaustion among female university teachers in Pakistan. Consistent with Conservation of Resources theory, sustained cross-domain pressures appear to drain finite emotional and energetic resources, culminating in burnout-related exhaustion. The magnitude of the association ($\beta = .54$) indicates that work-family conflict is not a peripheral stressor but a central psychological strain mechanism within Pakistani higher education contexts. The model accounted for nearly one-third of the variance in emotional exhaustion, underscoring the explanatory relevance of cross-domain role pressures. Importantly, the findings must be interpreted within Pakistan's sociocultural context, where unpaid domestic and caregiving responsibilities remain disproportionately allocated to women. When professional expectations expand without structural support or redistribution of household labor, resource depletion becomes structurally embedded rather than individually determined. From a policy perspective, burnout prevention in universities cannot be addressed solely through individual resilience-building interventions. Organizational practices such as realistic workload allocation, boundary-respecting communication norms, and family-supportive supervisory climates are central levers for reducing work-family conflict and protecting faculty well-being. Future research should extend this framework longitudinally, incorporate culturally specific moderators (e.g., extended-family support, spousal involvement), and examine reciprocal dynamics between exhaustion and conflict. A more nuanced understanding of

these processes is critical for retaining and sustaining women academics in Pakistan's higher education sector.

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