

# A Job Demand–Resource Model of Satisfaction With Work–Family Balance Among Academic Faculty: Mediating Roles of Psychological Capital, Work-to-Family Conflict, and Enrichment

SAGE Open  
 April–June 2021: 1–19  
 © The Author(s) 2021  
 DOI: 10.1177/21582440211006142  
[journals.sagepub.com/home/sgo](https://journals.sagepub.com/home/sgo)  


Farhan Sarwar<sup>1</sup>, Siti Aisyah Panatik<sup>2</sup>, Mohammad Saipol Mohd Sukor<sup>2</sup>, and Noraini Rusbadrol<sup>2</sup>

## Abstract

Using data from 450 public sector faculty members, a job demand–resource model of antecedents of satisfaction with work–family balance (balance satisfaction) was tested using PLS SEM. To understand the factors and processes that shape up balance satisfaction, the mediating variables in the model were psychological capital, work-to-family conflict, and work-to-family enrichment. Hypothesized partial mediation model was a better fit when we added cross-over paths between job demands and work-to-family enrichment and between job resources and work-to-family conflict. Job demands had both direct effect as well as an indirect effect on balance satisfaction via work-to-family conflict and work-to-family enrichment but not via psychological capital as a single mediator or one of the two serial mediators. Job resources had a direct effect and an indirect effect on balance satisfaction via work-to-family enrichment and work-to-family conflict and psychological capital. However, cross-over indirect effect was lower than differential salient hypothesized relationships. Importance performance analysis revealed work-to-family enrichment, job demands, psychological capital, and job resources as the most important predictors of balance satisfaction, work-to-family conflict, work-to-family enrichment, and psychological capital, respectively. The study found the importance of psychological capital as a developable personality resource along with contextual factors in shaping work–family outcomes. Several implications for theory and practice are also discussed.

## Keywords

work–family balance satisfaction, work-to-family conflict, work-to-family enrichment, psychological capital, job demands, job resources

How employees can attain a balance between their work and family lives remains a daunting challenge for contemporary managers. Although the term work–family balance is widely used in everyday organizational life, it received less researchers' attention as compared with segmented and directional work–family linking mechanisms. These linking mechanisms can be a work–family conflict which represents a negative effect of one domain on the other or work–family enrichment, which is the positive influence of one domain on the other. Previously, researchers used to conceptualize work–family balance in terms of four types of linking mechanisms which were work-to-family conflict, family-to-work conflict, work-to-family enrichment, and family-to-work enrichment (Frone, 2003). However, recent work–family researchers have converged on the notion that work–family balance is a unitary and a holistic construct (Wayne et al.,

2017). Among an assortment of constructs representing the global balance approach, work–family balance satisfaction (or balance satisfaction) is one such nuanced psychological construct that is considered an optimum conceptualization of the global balance perspective (Cahill et al., 2015; Casper et al., 2014). It reflects an individual's subjective perception of the level of harmonization between demands and resources in both work and family domains (Beham & Drobnič, 2010). A handful of emerging research on balance satisfaction has

<sup>1</sup>University of Education, Lahore, Pakistan

<sup>2</sup>Universiti Teknologi Malaysia, Johor Bahru, Malaysia

## Corresponding Author:

Farhan Sarwar, University of Education, College Road Township Lahore, Lahore 54000, Pakistan.

Email: [sarwarfarhan@gmail.com](mailto:sarwarfarhan@gmail.com)



Creative Commons CC BY: This article is distributed under the terms of the Creative Commons Attribution 4.0 License (<https://creativecommons.org/licenses/by/4.0/>) which permits any use, reproduction and distribution of

the work without further permission provided the original work is attributed as specified on the SAGE and Open Access pages (<https://us.sagepub.com/en-us/nam/open-access-at-sage>).

shown that it is strongly related to individual's well-being outcomes such as family life satisfaction, job satisfaction, and overall life satisfaction (Grawitch et al., 2013; Wayne et al., 2017). The current study investigated the work-related and personality predictors and the mechanism which shape the balance satisfaction of higher education academics in Pakistan.

Factors that pertain to an individual's work characteristics are significant in determining the perception of work–family balance. Existing research on work domain antecedents of balance satisfaction has primarily explored the relationship of various isolated contextual workplace demands such as working hours (Abendroth & Den Dulk, 2011; Beham et al., 2014; McNamara et al., 2013; Valcour, 2007), job insecurity, and organizational time expectations or perception of workload (Beham & Drobnič, 2010); contextual job resources such as job control, enriched job characteristics, and job social support (Abendroth & Den Dulk, 2011; Wayne et al., 2020). Few studies have also explored personal characteristics such as neuroticism, resilience, and proactive health behavior (Wayne et al., 2020). Literature indicates that personal factors can play an essential role in shaping one's perception of balance, along with the situation factors (Greenhaus & Allen, 2011; Wayne et al., 2016). Work–family researchers have also emphasized the importance of positive psychological resources to successfully manage the role stressors and demands of work and family (Morganson et al., 2014). However, there is a dearth of literature on how the positive psychological resource of psychological capital relates to satisfaction with the work–family balance of the employees. Literature also suggests that positive capacities are important for work and family interface as employees who are high in psychological capital are better able to manage the inter-domain frictions and are found to be more successful in balancing work and family roles (Karatepe & Karadas, 2014; Siu, 2013). Unlike earlier studies which tested various antecedents in isolation, we have included three types of antecedents (job demands, job resources, and psychological capital) simultaneously. With this approach, we were also able to test the existence of relationships as well as compare the importance of each antecedent in comparison with each other.

Besides, the existing balance satisfaction research is also criticized for lack of studies utilizing robust theoretical frameworks to study the relationship and intermediary processes relating antecedents with balance satisfaction (J. Choi et al., 2017; Wayne et al., 2020). Our study developed and tested a research model based upon the job demand–resource (JD-R) framework with psychological capital as a personality antecedent and work–family linking mechanisms of conflict and enrichment as mediators. Greenhaus and Allen (2011) suggested that contextual and personality factors influence an individual's feeling of work–family balance partially through work–family conflict and enrichment. Although balance satisfaction is conceptually different from

work–family linking mechanisms (conflict and enrichment), there is a logical connection between the two as both these approaches are shaped by domain-based demands and resources (Grawitch et al., 2013), and personal characteristics (Morganson et al., 2014). Existing literature also supports the incorporation of conflict and enrichment as mediators within demand and resource framework. In this respect, work-to-family conflict represents the negative health impairment process of the JD-R model. Work-to-family conflict arises due to excessive and unmanageable job demands and negatively influence well-being or diminish role performance in the family domain (Bakker & Demerouti, 2007; Greenhaus et al., 2006). Similarly, work-to-family enrichment conceptually represents the positive motivational process of the JD-R model as it occurs when resources in the job domain improve the quality of life and performance of roles in the family domain (Greenhaus & Powell, 2006). Despite calls from researchers to further investigate the relationship between both approaches (Wayne et al., 2017), the mediation of conflict and enrichment is scarcely tested and needed further investigation.

We also examined the notion that psychological capital can act as a mediator between situational antecedents and well-being outcomes (ten Brummelhuis & Bakker, 2012). Empirical research indicates that contextual job factors influence the level of psychological capital since it is a malleable personality attribute. Therefore, it is plausible that JD-R would indirectly influence all types of work–family outcomes (work-to-family conflict, work-to-family enrichment, and balance satisfaction) by shaping an individual's psychological capital (Paterson et al., 2014; Youssef-Morgan, 2014). We also tested several serial mediations of psychological capital and work–family conflict/enrichment between JD-R and balance satisfaction to elucidate the existence of multiple mediating psychological processes through which environmental factors influence employee's balance satisfaction. This sequential pathway starts from the possible influence of environmental factors on psychological capital (Youssef-Morgan, 2014), which as a positive personality resource, can facilitate coping with work–family conflict, proactively managing multiple roles demands, efficiently utilizing domain resources, and enhancing work–family enrichment; therefore, leading to a positive appraisal of work–family balance (Morganson et al., 2014).

Our research will help to clarify the differences and relationships between overall work–family balance perception and segmented linking mechanisms. Our framework presents to HR practitioners the importance of both contextual and personality factors in fostering work–family balance and gives the understanding of the underlying processes that lead to balance satisfaction. The crucial role of a developable personality resource of psychological capital in the current model will enable HR practitioners to enhance employees' work–family balance by investing in this psychological resource through either customized training interventions

(Luthans et al., 2006) or reshaping the job environment for higher resources and lower demands. Testing for mediation of psychological capital in this model will also help to clarify how JD-R influence it and whether it carries forward this effect to work–family outcomes.

## Contextual Background

This study is carried out on public sector university academic faculty in Pakistan. Academic jobs are becoming more competitive and laden with excessive pressures such as publications, teaching workloads, and excessive paperwork (Zábrodská et al., 2017). The prevalence of the ideal work norm in academia compels academicians to devote more time and energies for academic assignments and give work priority over family matters (Winslow & Davis, 2016). Curtis (2004) calls university faculty jobs “potentially boundless” since it keeps them busy in finding solutions to never-ending scientific or philosophical problems. Faculty are continuously engaged in reading, writing, observing, or creating knowledge via research or teaching either at work or home, creating balance issues. Low job resources and high demands are predictors of high work–family conflict, low work–family enrichment, and perception of domain imbalance (Marais et al., 2014; Peeters et al., 2005). There are many studies and surveys which indicate that balancing work and family life is a real challenge for academicians.

Pertinent to the current scenario, it is of particular interest to investigate antecedents of work–family balance satisfaction among university academicians in Pakistan. Jobs once known to be flexible, autonomous, secure, and low stress have become more competitive and demanding due to reforms introduced by the Higher Education Commission (HEC) of Pakistan during last few decades (Parveen et al., 2011). In public sector universities, where HEC exerts the greater influence, the job pressures are greater than private-sector universities. Faculty are expected to produce high impact factor research papers, involve in research and academic projects, and deliver higher quality lectures. However, despite these high expectations, the remunerations and supporting academic resources are below par (Hayward, 2015; Mahmood, 2016; Yusoff & Khan, 2013). Several studies have also shown the prevalence of burnout and occupational stress among faculty in Pakistan (Khan et al., 2014; Yusoff & Khan, 2013), which can also be attributed to an imbalance between faculty’s work and family life (Mudrak et al., 2018; Shin & Jung, 2014; Zábrodská et al., 2017). Recently, Rehman (2015) found that faculty of public sector universities in Pakistan experience significantly greater work–family conflict as compared with their private-sector counterparts. Investigating the predictors and mediating processes of balance satisfaction among public sector academics in Pakistan will provide useful information for policymakers to enhance academician’s satisfaction with work–family balance.

## Theory and Literature

### Work–Family Balance Satisfaction

According to Valcour (2007), balance satisfaction is “an overall level of contentment resulting from an assessment of one’s degree of success at meeting work and family role demands” (p. 1512). The central idea in satisfaction variables is that an individual can judge a specific aspect of their life without any constraint of values, norms, or criteria imposed by the researchers. Hence, satisfaction measures capture an evaluative thought, mostly based on self-centered expectations (Daukantaitė et al., 2016) and reflect an individual’s overall assessment of a particular aspect of life (such as family, work, finance, overall life, etc.; Diener et al., 1985). Similarly, balance satisfaction captures a person’s cognitive and affective evaluation of the current state of his or her work–family balance. The cognitive component reflects the appraisal of individuals regarding the availability and allocation of resources that lead to the successful integration of roles across both domains. This cognitive evaluation gives rise to an affect-based evaluation (feelings) which can range from being happy and satisfied (positive emotions) to being unhappy and dissatisfied (negative emotional state) with the state of work–family balance (Wayne et al., 2017). Just like all other attitudes, balance satisfaction is also influenced by both personal (internal) factors and environmental (external) factors. However, at the time it is assessed, it reflects one’s internal evaluations of the external context based on self-selected criteria (Wayne et al., 2017). Two employees facing similar scenarios (such as spending more time at work and less at home) may have entirely different levels of balance satisfaction (Cahill et al., 2015). Therefore, we can conclude that along with situational antecedents, personal factors (e.g., personality, values, age, gender, etc.) play an instrumental role in shaping balance satisfaction.

Studies that have explored the outcome of balance satisfaction have found it to be related to various performances and well-being outcomes. Balance satisfaction positively predicts employees job satisfaction, family satisfaction, organizational commitment, and family performance (Grawitch et al., 2013; Wayne et al., 2017). In a study by Aleksić et al. (2017), it was considered as a personal resource which relates positively to employees’ creativity. The study also found that creativity was high when balance satisfaction was high, and time pressure was low even if there was a poor relationship with one’s supervisor. In a rare non-western study, J. Choi et al. (2017) found that balance satisfaction was a positive predictor of affective organizational commitment (AOC) and supervisor-directed organizational citizenship behavior (OCB). In the same study, balance satisfaction also mediated the relationship between family-supportive supervision and AOC, “family-supportive supervision” and “supervisor directed OCB” and between “family supportive paid leave” and AOC. These compelling empirical pieces of evidence regarding the utility

of this attitude in predicting beneficial outcomes makes it worthwhile to investigate how it is shaped, especially when the research on this construct is still in earlier stages and scant when it comes to academic faculty.

### *JD-R Perspective of Balance Satisfaction*

We draw on the JD-R framework (Bakker & Demerouti, 2007), and conservation of resource (COR) theory (Hobfoll, 1989) to explain how resourceful factors and demanding factors at job influence balance satisfaction. Demands are structural or psychological claims associated with role requirements, expectations, or norms to which individuals must respond by exerting physical or mental effort. Resources are structural or psychological assets that may be used to facilitate performance, reduce demands, or generate additional resources (Bakker & Demerouti, 2007; Voydanoff, 2005). The JD-R model is based on credence that all the job characteristics can be classified into either demands or resources. JD-R influences employee's well-being or performance outcomes via two mediating mechanisms of health impairment and motivation. In the health impairment process, high job demands deplete employees' mental and physical resources leading to health issues, low satisfaction, and poor performance. In the motivation process, job resources increase employees' mental and physical energies leading to greater job engagements, satisfaction, and performance. Both these psychological processes simultaneously influence the well-being outcomes such as balance satisfaction.

In this study, we have operationalized job demands as a combination of three sub-dimensions of quantitative, affective, and cognitive demands at the workplace (ten Brummelhuis & Bakker, 2012). These three dimensions holistically reflect the psychological and physiological aspects of demands and have been found important in a variety of occupational groups (Bakker & Demerouti, 2007; Peeters et al., 2005) including university faculty (Mudrak et al., 2018; Torp et al., 2018; Watanabe & Falci, 2014; Zábrodská et al., 2017). Quantitative demands refer to the amount and pace of the job. A high level of quantitative demand refers to job overload. For academic faculty, this could mean assigning extra duties to academic faculty during new admissions. Emotional demands refer to some emotionally stressful situations at a job, such as an emotionally draining encounter with the head of the department due to negative feedback from students. Finally, cognitive or mental demands reflect the degree to which individuals should exert sustained mental effort like making connections, memorizing, and coordinating activities in carrying out job roles. Conceiving and writing a quality research paper while at the same time teaching or making a family budget and managing limited finances at home are a few examples of cognitive demands.

Similarly, job resources are operationalized with four dimensions. Two of the resource dimensions are job social

support, which is supervisor support, and co-worker support. The remaining two dimensions are job autonomy and opportunity for professional development. Autonomy, which is also an enabling resource (Voydanoff, 2004b), refers to an individual decision latitude to decide how and when a certain task is to be performed. Literature indicates that university faculty generally enjoy greater autonomy and flexibility at the job as compared with other occupations (Winefield et al., 2014). Social support refers to instrumental, emotional, or cognitive support from social role partners (ten Brummelhuis & Bakker, 2012). In the context of faculty's work-family interaction, this is supported by recent findings of Watanabe and Falci (2017) that greater friendship connections of faculty members within the department increase their work-family support resources in the form of information about work-family policies, empathetic and instrumental support regarding the work-family conflict. These connections enhance their perceptions of positive work-family culture at work. Finally, the development opportunity indicates how much the work environment provides opportunities to learn and develop. At the workplace, this may aid in satisfying employee's intrinsic motivation to achieve results (Tims & Bakker, 2010). Considering that faculty is generally intrinsically motivated for their jobs, this resource is also essential for academic faculty.

COR theory (Hobfoll, 1989) is widely used to explain the relationships among antecedents, mediators, and outcomes within the JD-R based models. It also provides an ample explanation of how JD-R relate to balance satisfaction. According to COR, individuals strive to acquire, expand, and protect their resources. Since work and family domains have permeable cognitive, physical, and behavioral boundaries with frequent role transitions between both domains (Clark, 2000), a threat or actual loss of resources due to taxing demands in any domain would ultimately disturb the perception of role balance between both domains leading to lower satisfaction with the current state of domain balance. On the contrary, the availability of resources in one or both domains would result in a gain spiral and availability of ample resources to meet the demands of both resources resulting in higher balance satisfaction. Beham and Drobnič (2010) applied the demand and resource perspective of the work-family interface (Voydanoff, 2005) to investigate how a variety of perception-based JD-R influence balance satisfaction among service sector workers in Germany. They found that high perception of organizational time expectations (quantitative demand), psychological job demands (cognitive demand), and feeling of insecurity (emotional job demand) negatively predicted employees' balance satisfaction. In the same vein, job-based resources, such as work-based social support (social resource) and job control (autonomy), were found to predict balance satisfaction positively. We believe that the same pattern of relationships would also hold for university faculty in Pakistan. Therefore, it is hypothesized that:

**Hypothesis 1 (H1):** Job demands are negatively related to balance satisfaction

**Hypothesis 2 (H2):** Job resources are positively related to balance satisfaction

### *Conflict and Enrichment as Mediators*

A work–family conflict is a form of inter-role conflict such that there are incompatible demands across both domains, causing friction between work and family roles. When work roles cause stress and difficulty in family roles, this is called work-to-family conflict (Greenhaus et al., 2006). While adopting JD-R for work–family studies, work-to-family conflict can be substituted as a health impairment process since both arise from domain demands and negatively influence individuals' well-being (Bakker & Demerouti, 2007; Greenhaus et al., 2006). A meta-analysis has found a negative relationship between work-to-family and work, family, and general well-being outcomes (Amstad et al., 2011).

Work–family enrichment occurs when the resources associated with a role in one domain enhances the quality of life and performance across the domain. A short span of research has established enrichment to be a robust predictor of several dimensions of well-being (such as job satisfaction, family satisfaction, affective commitment, and psychical and mental health) and employee job performance (McNall et al., 2010). Work-to-family enrichment occurs when resources in the job domain improve the quality of life and performance of roles in the family domain (Greenhaus & Powell, 2006). It conceptually overlaps with the motivation process in the JD-R model since they both arise from domain resources and positively influence well-being outcomes. Various studies indicate that job demands are more salient predictors of work-to-family conflict, while job resources are salient predictors for work-to-family enrichment, a phenomenon known as differential salience approach (Lapierre et al., 2018; H. Liu & Cheung, 2015). Therefore, we hypothesize a relationship between job demands, job resources, work-to-family conflict, and work–family enrichment based on differential salience of antecedents as follows:

**Hypothesis 4 (H4):** Job demands have a positive direct relationship with work-to-family conflict

**Hypothesis 5 (H5):** Job resources have a positive direct relationship with work-to-family enrichment.

Previous studies have also depicted the relationship between work–family linking mechanisms, and global balance approaches such that conflict negatively predicts, while enrichment positively predicts balance satisfaction (Grawitch et al., 2013; Wayne et al., 2017, 2020). When individuals experience that their work demands are depleting resources in family life, this transcends into a lower satisfaction with overall work–family balance. Similarly, if individuals perceive that their work-roles are enriching the roles in their

family life, this would eventually lead to an enhanced satisfaction with work–family balance. Therefore, we expect the same pattern of relationship to hold for academic faculty in Pakistan.

**Hypothesis 5 (H5):** Work-to-family conflict has a negative relationship with balance satisfaction

**Hypothesis 6 (H6):** Work-to-family enrichment has a positive relationship with balance satisfaction

Greenhaus and Allen (2011) and Voydanoff (2005) theoretical models of global balance appraisal propose that positive and negative work–family linking mechanisms act as mediating mechanisms that explain the effect of contextual and personality antecedents on work–family balance. Individual's experiences of work role demand consuming family resources (i.e., work-to-family conflict) or experiences of work resources enriching family role performances (i.e., work-to-family enrichment) would ultimately influence (negatively and positively respectively) the cognitive appraisal of resource allocation and fit between domains as well as an “affective state” of being satisfied with this balance (Valcour, 2007; Wayne et al., 2017). Wayne et al., (2020) found empirical evidence for the mediation of work-to-family conflict and enrichment between job resources and balance satisfaction. In their study, antecedents were two types of job resources that are enrichment job resources and job social support. Beham and Drobnič (2010) found a partial mediating effect of work-to-family conflict between job demands (organizational time expectations, psychological job demands, and feeling of insecurity) and balance satisfaction. Capitulating on the above discussion and considering the differential salience approach, we present hypotheses for mediation of work-to-family conflict and enrichment as:

**Hypothesis 7 (H7):** Job demands have a negative and indirect relationship with balance satisfaction mediated by work-to-family conflict.

**Hypothesis 8 (H8):** Job resources have a positive indirect relationship with balance satisfaction mediated by work-to-family enrichment.

### *Psychological Capital as a Personal Resource*

Psychological capital is an emerging positive personality construct and is placed under the umbrella of positive organizational behavior (POB; Luthans, 2002a). POB is the study and application of those positive human psychological resources and strengths which can be measured, developed, or managed for better outcomes (Larson & Luthans, 2006; Luthans, 2002b). Four of the personality constructs which fulfill these criteria and thus formulate a higher-order construct of psychological capital are optimism, self-efficacy, hope, and resilience. Unlike other personality traits that are relatively fixed and trait-like, psychological capital gives

greater leverage to managers because of its malleable and state-like nature. Therefore, it can be developed through training and other means to enhance employees' performance and well-being indicators (Karatepe & Karadas, 2015). Another important feature that distinguishes psychological capital from personality traits is its domain specificity (Youssef-Morgan, 2014). Same as in the majority of existing studies, we are referring to work psychological capital in this study. When we refer to the work domain variant, it means that psychological capital and its constituent capacities (optimism, self-efficacy, hope, and resilience) are more relevant psychological resources for work-related attitudes, behaviors, and performance outcomes (Avey et al., 2011). Few studies have also discussed its other variants such as health psychological capital, relationship psychological capital (Luthans et al., 2013), academic psychological capital (Luthans et al., 2012), and overall psychological capital (Lorenz et al., 2016).

Psychological resources are considered influential in guiding individuals' abilities to manage demands and resources in multiple domains and influence the perception of both linking mechanisms and overall perception of the work–family interface (Grawitch et al., 2013; Michel et al., 2011). People who are more effective in managing their job resources experience less work-to-family conflict, more work-to-family enrichment, and a higher overall perception of balance between work and family domains (Grawitch et al., 2013; ten Brummelhuis & Bakker, 2012). The positive psychological resources, inherent within the positive developmental state of psychological capital, enhance an individual's ability to cope with adverse circumstances and efficiently utilize resources giving more capacity to cope with challenges of the work–family interface (Morganson et al., 2014). An earlier study evidenced a significant negative relationship between psychological capital and bi-directional work–family conflict (Karatepe & Karadas, 2014). Another study found a positive correlation between psychological capital and work–life balance 6 months apart (Siu, 2013). Existing research lacks empirical evidence of the relationship between psychological capital as an independent and enrichment as a dependent variable. However, since enrichment theory proposes that resources in a domain lead to higher performance across the domain via instrumental or affective paths (Greenhaus & Powell, 2006), we expect a positive association of psychological capital with work-to-family enrichment. Therefore we hypothesize that:

**Hypothesis 9 (H9):** Psychological capital has a negative relationship with work-to-family conflict

**Hypothesis 10 (H10):** Psychological capital has a positive relationship with work-to-family enrichment

**Hypothesis 11 (H11):** Psychological capital has a positive relationship with balance satisfaction.

Psychological capital and its constituent personality attributes are malleable and are influenced by environmental factors (Paterson et al., 2014). Positive environmental experiences (job resources) can enhance, whereas negative and demanding experiences in the workplace can diminish the individuals' psychological capital (Luthans & Youssef-Morgan, 2017). A study conducted in China found that feelings of being under-rewarded and over-commitment diminished the psychological capital of female medical practitioners (L. Liu et al., 2012). However, a work environment with high resources has enormous potential to enhance malleable personality resources (H. Liu & Cheung, 2015). The influence of environmental forces on developable psychological capacities is evident from a study in which job autonomy and opportunity for professional development were found to activate positive personality resources of optimism, organizational based self-esteem, and generalized self-efficacy (Bakker & Demerouti, 2007). COR theory also suggests that contextual and social resources breed other psychological resources (gain spiral), while role pressures and demands deplete psychological resources (loss spiral) (Hobfoll, 2002). Therefore, we hypothesize that:

**Hypothesis 12 (H12):** Job demands have a negative relationship with psychological capital

**Hypothesis 13 (H13):** Job resources have a positive relationship with psychological capital

Expounding upon the previous discussion, it is also plausible that JD-R would indirectly influence work–family outcomes (conflict, enrichment, and job satisfaction) by shaping the individuals' levels of psychological capital, which would, in turn, play a role of cognitive resource to affect work–family perceptions. Previous research has also established the mediation of psychological capital between environmental factors (demands or resources) and well-being outcomes. For instance, Cassidy et al. (2014) found that psychological capital mediated the relationship between workplace bullying (a type of job demand) and employee's health. Another study reported psychological capital as a partial mediator between supportive organizational climate and employee's performance (Luthans et al., 2008). Therefore, we also expect psychological capital to act as a mediator in the research framework. ten Brummelhuis and Bakker (2012), in their work–home resource model, proposed that contextual demands and resources influence the processes of conflict and enrichment by changing an individual's personality capacities. They based this proposition on the gain spiral principle and loss spiral principle of COR theory. Therefore, we present our second set of mediation hypotheses as follows:

**Hypothesis 14 (H14):** Job demands are indirectly and positively related to work-to-family conflict mediated by psychological capital

**Hypothesis 15 (H15):** Job demands are indirectly and negatively related to balance satisfaction mediated by psychological capital

**Hypothesis 16 (H16):** Job resources are indirectly and positively related to work-to-family enrichment mediated by psychological capital

**Hypothesis 17 (H17):** Job resources are indirectly and positively related to balance satisfaction mediated by psychological capital

We also endeavored to expand the existing theory by testing for both psychological capital and work–family linking mechanisms as serial mediators between contextual factors and balance satisfaction. In a three-path serial mediation, two different mediators exist in indirect effect (Preacher & Hayes, 2008). Testing multiple mediators allows us to appreciate the existence of complex multilevel underlying mechanisms in the formulation of psychological outcomes. Previous researches also indicate the possibility of this serial mediation. In one of a recent study conducted in China, psychological capital and work-to-family enrichment was found to be serial mediators between the construct of organizational calling and life satisfaction (Y. E. Choi et al., 2018). Theoretically, this serial mediation indicates a logical path in which contextual job factors influence individual's cognitive resource of psychological capital (demands diminish psychological capital and resources enhance psychological capital) which further affects the perceptions of positive and negative work–family linking mechanism (psychological capital helps to reduce work-to-family conflict and improves work-to-family enrichment) which in turn determines the level of balance satisfaction (work-to-family conflict negatively and work-to-family enrichment positively influence balance satisfaction). Based on the above discussion, we propose that a portion of the indirect effect of JD-R on balance satisfaction will be explained first by psychological capital and then by work-to-family conflict and work-to-family enrichment in series. Job contextual factors will enhance or diminish individual psychological resources of psychological capital, which would, in turn, relate to work-to-family conflict and work-to-family enrichment respectively, leading to overall appraisal with balance. Hence, we hypothesize that:

**Hypothesis 18 (H18):** Job demands have a negative indirect relationship with balance satisfaction sequentially mediated by psychological capital and work-to-family conflict.

**Hypothesis 19 (H19):** Job resources have a positive indirect relationship with balance satisfaction sequentially mediated by psychological capital and work-to-family enrichment.

Figure 1 depicts the schematic diagram of our theoretical framework with all the direct effect hypotheses labeled.

## Method

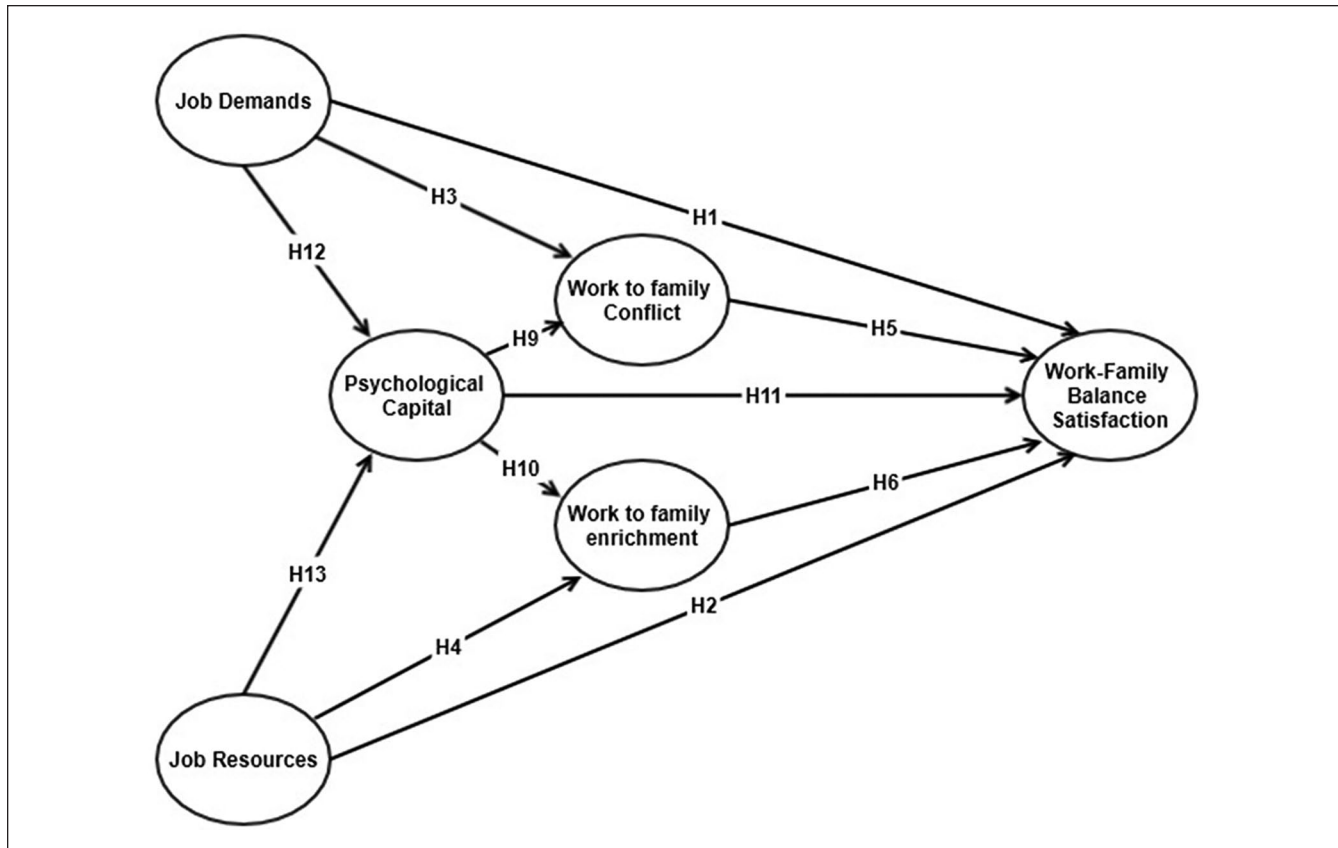
### *Procedures and Participants*

Cross-sectional primary data were collected via an online survey from public sector academic faculty in Pakistan. A similar methodology has been extensively adopted in recent work–family studies (Greenhaus & Allen, 2011; Pattusamy & Jacob, 2015; Wayne et al., 2017). We sent an email with informed consent and a link of the survey to around 5,000 official email addresses. These emails were collected from websites of 30 public sector universities of Pakistan representing all five regions of the country. Online data collection is beneficial because of cost-effectiveness, quick responses, coverage of the geographically dispersed area and convenient in handling. However, one of its limitations is to measure the response rate as it is difficult to estimate the number of people who received and opened the survey email. The data collection was carried out from January 2018 to March 2018, during which we registered 502 responses. After catering for missing values (we omitted any respondents with greater than 5% missing values) and inconsistent response, our final sample size was 450.

The demographic profile analysis revealed that 34.1% (154) of the respondents were female. The age distribution was as follows: 1.3% (6) were less than 25 years, 44.4% (200) were between 25 and 35 years, 36.4% (164) were between 35 and 44 years, 10.9% (49) were between 45 and 54 years, and 5.3% (24) were above 55 years. Married individuals constituted 77.3% (348) of the total sample, of which 87% (272) reported to have at least one child (up to 6). However, 22% (99) of the respondents were unmarried, while 3 (0.7%) did not report their marital status. Of the total sample, 1.6% (7) had 16 years of education (bachelors), 46.9% (211) had 18 years of education (masters), and 50.7% (228) had a PhD degree while four did not respond to educational level. Among the four designations of faculty, 42.7% (192) were lecturers, 44.9% (202) were assistant professors, 8.9% (40) were associate professors, 2.6% (12) were full professors, and 0.9% (4) respondents did not indicate designation. Notably, our sample also included those faculty members who were single. We believe that there is an underrepresentation of single/unmarried individuals in the earlier work–family studies. Our perspective is that role experiences are not limited to those employees who are parents or spouses. Positive and negative work–family role experiences also matter for those who live in extended families (Lu et al., 2015), especially in societies like Pakistan where adults live with parents before or in a combined family setup even after marriage (Taqui et al., 2007).

### *Measures*

We adopted relevant scales for study variables from existing literature. Each item was measured on a 5-point rating scale. The higher scores reflected a higher level of the related



**Figure 1.** Schematic diagram of the study's framework.

construct. Each scale was subjected to reliability and validity analysis (see Section “Measurement Model Assessment”). Demographics data were collected for gender (male, female), age (<25, 25–34, 35–44, 45–54, >54 years), marital status (unmarried, married), education (bachelors, masters, PhD), and designation (lecturer, assistant professor, associate professor, full professor). All adopted scales were in English and were administered in the original language as it is the official language of higher education academia in Pakistan. The validity and reliability statistics for the scales are depicted in the analysis section.

**Job demands.** We operationalized job demands using scales of quantitative, emotional, and cognitive job demands. Scales were adopted from the English version of the Questionnaire on the Experience and Evaluation of Work (QEEW; Van Veldhoven & Meijman, 1994). The scale of each dimension has four items each. A sample item for quantitative job demand was “how often it happens that you have to work very fast?”; for emotional demand was “does your work demand a lot from you emotionally?”; and for cognitive job demand was “do you have to work with a lot of precision?” Responses ranged from 1 = *never*, 2 = *sometimes*, 3 = *occasionally*, 4 = *often*, and 5 = *always*.

**Job resources.** We operationalized job resources as a combination of collegial support, supervisor support, job autonomy, and opportunity for professional development. Items for the first three resources were adopted from QEEW (Van Veldhoven & Meijman, 1994), having three items each. A sample item for collegial support was “if necessary, you can ask your colleagues for help?” A sample item for supervisor support was “you can count on your superior when you come across difficulty in your work?” A sample item for Job autonomy was “I can decide myself how I execute my work?” Opportunity for professional development was measured by three items from Bakker et al. (2003). A sample item was “my work offers me the opportunity to learn new things?” Responses ranged from 1 = *never*, 2 = *sometimes*, 3 = *occasionally*, 4 = *often*, and 5 = *always*.

**Psychological capital.** We measured psychological capital using the PCQ-12 questionnaire (Avey et al., 2008). In PCQ-12, two items represented optimism, four items self-efficacy, three-item represented hope, and three items represented resilience. A sample item for the optimism scale is “I always look on the bright side of things regarding my family life.” The sample item for self-efficacy scale is “I feel confident analyzing a long-term problem in my life to find a solution.”



The sample item for the hope scale is “I can think of many ways to reach my current work goals.” The sample item for the resilience scale is “I usually take stressful things at work in stride.” Responses ranged from 1 = *strongly disagree*, 2 = *disagree*, 3 = *neutral*, 4 = *agree* and 5 = *strongly agree*. The scale is available on request from the authors’ website ([www.mindgarden.com](http://www.mindgarden.com)).

**Work-to-family conflict.** A nine-item scale developed by Carlson et al. (2000) measures work-to-family conflict on three dimensions of strain, time, and behavior-based conflict, as conceptualized by Greenhaus and Beutell (1985). We adopted three items abridged version of the longer scale condensed by Matthews et al. (2010) who reported that the abridged scale had concurrent, predictive and convergent validity comparable to the original scale. A sample item was “I have to miss family activities due to the amount of time I must spend on work responsibilities.” Responses ranged from 1 = *strongly disagree*, 2 = *disagree*, 3 = *neutral*, 4 = *agree*, and 5 = *strongly agree*.

**Work-to-family enrichment.** Similar to W-FC, we opted for three items abridged version of Carlson et al. (2006) nine-item work-to-family enrichment scale (Kacmar et al., 2014). A sample item was “My involvement in my work makes me feel happy, and this helps me be a better family member.” Responses ranged from 1 = *strongly disagree*, 2 = *disagree*, 3 = *neutral*, 4 = *agree* and 5 = *strongly agree*. The abridged version is utilized by many recent studies which reported adequate reliability and validity of the scale (McNall et al., 2015; Wayne et al., 2020).

**Satisfaction with work–family balance.** We used a five-item scale developed by Valcour (2007) to assess balance satisfaction. Wayne et al. (2011) comment that this is the most valid, reliable and useful measure of balance satisfaction. A sample item is “the way you divide your time between work and personal or family life.” Responses ranged from 1 = *strongly disagree*, 2 = *disagree*, 3 = *neutral*, 4 = *agree*, and 5 = *strongly agree*.

## Data Analysis

To test the research model as hypothesized, we employed the variance-based partial least square structural equation modeling (PLS-SEM) technique (Lohmoeller, 1989). PLS-SEM offers many benefits over traditional covariance-based SEM. First, it allows testing complex relationships with a relatively smaller sample size requirement. Second, being a non-parametric analysis technique, it can handle data that is non-normal. Third, it works well with constructs having few numbers of scale items. For this reason, it is a preferred choice for exploratory frameworks such as the one proposed in this study (Hair, Matthews, et al., 2017). Recently several attempts have been made to extend its capabilities by

incorporating “model fit,” which may help identify model misspecification; however, these “model fit” are in earlier stages of development and should be interpreted with caution (Hair, Hult, et al., 2017).

For PLS-SEM analysis, we utilized SmartPLS 3 software (Ringle et al., 2015). A logical two-step sequence of SEM analysis was adopted to analyze the research model (Anderson & Gerbing, 1988). First, we assessed the outer (measurement) model for the reliability and validity of measures. In the second step, we evaluated the inner (structural) model for model fit, effect sizes, and path coefficients of direct and indirect effects. Significance testing of the direct and indirect paths was based on 5,000 bootstrap samples and two-sided significance test with 95% bias-corrected and accelerated confidence interval (95% BCa-CI). A change of sign from a lower interval (2.5%) to the upper interval (97.5%) indicates insignificant results (Henseler et al., 2014).

## Results

### Common Method Bias

Common method bias (CMB) implies that the covariance among measured items is attributable to the measurement method rather than actual constructs which represent them. In the first step, to avoid CMB, we ordered survey questions such that scales for independent and dependent variables were placed separately on google forms. We utilized Harman’s (1967) one-factor test, as suggested by Podsakoff et al. (2003) to identify the existence of CMB. Principal component analysis with varimax rotation was carried out in SPSS 20 software to determine whether a single factor produced more than 50% of the variance. The results revealed that when all the items were loaded on a single factor, they explained 24% of the total variance. Therefore, we can conclude that common method bias was not an issue in the current research.

### Measurement Model Assessment

Following the recommendations of Lee and Cadogan (2013), we modeled higher-order variables of job demands, job resources, and psychological capital as first-order reflective latent constructs loading indicators of all dimensions on a single latent variable. Literature has recommended that item loadings should ideally be higher than 0.708. However, loadings as low as 0.4 could be retained if the average variance extracted (AVE) values are above the threshold of 0.50 (Fornell & Larcker, 1981). Few items with low loading indicators were deleted from some construct until we attained the threshold for AVE. From the job demands scale, we removed two out of four items, each from emotional demands and cognitive demands. The eight items we retained had loadings between .58 to .82. We deleted one item of collegial support from the job resources scale, and the remaining items had

**Table 1.** Measurement Model: Cronbach's Alpha, Composite Reliability, and AVE.

Construct	<i>M</i>	<i>SD</i>	$\alpha$	CR	AVE
JD	3.36	.74	.86	.89	.51
JR	3.51	.70	.90	.92	.51
PsyCap	3.86	.59	.89	.91	.51
W-FC	2.89	.97	.78	.87	.69
W-FE	3.81	.77	.82	.89	.74
WFBS	3.54	.89	.91	.94	.75

Note.  $\alpha$  = Cronbach's alpha; CR = composite reliability; AVE = average variance extracted; JD = job demands; JR = job resources; PsyCap = psychological capital; W-FC = work-to-family conflict; W-FE = work-to-family enrichment; BS = balance satisfaction.

factor loadings between .53 to .83. Two out of four resilience items had to be deleted from psychological capital scale due to low factor loadings and remaining factor loadings ranged between .63 to .78. For work–family interface constructs, item loadings for three work-to-family conflict items were between .80 to .82, for three work-to-family enrichment items was between .80 to .90 and for five items of balance satisfaction was between .80 to .90. Scale reliabilities were reported using Cronbach's alpha and recently proposed composite reliability (CR). Even though Cronbach's alpha is a widely used measure of reliability, composite reliability is deemed more accurate due to its consideration of relative indicator's weights while making calculations (Dijkstra & Henseler, 2015). In our study, both types of reliabilities were above recommended values of .70 for every scale. Similarly, all of the scales were adequate in convergent validity as AVE values were above .50 in all the cases. Table 1 reports the mean, standard deviation, Cronbach's alpha, composite reliabilities, and average variance extracted values of all the scales with revised factor loadings.

We used Fornell–Larcker (F-L) criteria (Fornell & Larcker, 1981) and heterotrait–monotrait (HTMT) ratio (Henseler et al., 2015) to determine discriminant validity. In F-L criteria, discriminant validity is established when the square roots of AVE of a construct (depicted bold in diagonal) are higher than the correlation between every two constructs. Similarly, HTMT values between two constructs below .9 are indicative of discriminant validity. In our study, both approaches indicated adequate discriminant validity for each construct (Table 2).

### Structural Model Assessment

First, we examined the structural model for multicollinearity issues. All the variance inflation factor values for predictive constructs (job demands, job resources, psychological capital, work-to-family conflict, and work-to-family enrichment) were less than the cutoff value of 5. Next, we used approximate fit measures that are standardized root mean square residual (SRMR) and root mean squared residual covariance

matrix (RMS theta) to test model fit (Lohmoeller, 1989). For our hypothesized model, SRMR (0.067) and RMS theta (0.11) were below the cutoff values (0.08 for SRMR and 0.12 for RMS theta; Henseler et al., 2016). Then, we tested two variations in the hypothesized model for model fit comparisons. Full mediation model (removing direct paths) proved to be poor fit with data (SRMR = 0.12, RMS theta = 0.13). Then, we checked for fit indices of the model in which two non-hypothesized direct crossover paths from job demands to work-to-family enrichment and job resources to work-to-family conflict were established. The crossover model was a better fit (RMS theta = 0.11, SRMR = 0.067) compared with our hypothesized model with a considerable increase in the coefficient of determination of balance satisfaction. Therefore, this model was retained for further analysis.

In the third step, we assessed the coefficient of determination ( $R^2$ ), the combined variance in endogenous variables collectively by all exogenous variables. Together exogenous variables accounted for 23% variance in psychological capital, 28% variance in work-to-family conflict, 27% variance in work-to-family enrichment and 50% variance in balance satisfaction. These values of  $R^2$  conform to those reported by recent work–family studies which employed university faculty as samples (Pattusamy & Jacob, 2015, 2016) We used Stone–Geisser's  $Q^2$  values (Geisser, 1975; Stone, 1974) to determine the predictive relevance of four endogenous variables in the model. Results for all four variables were greater than zero, which indicated the out of sample predictive capabilities of four endogenous variables (Sarstedt et al., 2017). We assessed the effect size of exogenous variables on endogenous variables using Cohen's  $F^2$  (Cohen, 1988). In terms of effect size, work-to-family conflict was the most important predictor (.13) of balance satisfaction followed by work-to-family enrichment (.09), psychological capital (.05), job resources (.04), and job demands (.03). Psychological capital (.15) had the highest effect on work-to-family enrichment while job resources (0.04) and job demands (0.02) had a little effect.  $F^2$  value for the effect of job demands (.29) on work-to-family conflict indicates its importance as predictors. In contrast, job resources (.02) and psychological capital (.02) did not have considerable influence on work-to-family conflict. Finally, it was revealed that job resources (.30) had a substantial effect while job demands did not affect psychological capital.

The next step in the structural model analysis was to determine the beta coefficients and significance values of direct effect relationships (hypothesis testing), as depicted in Table 3. Bias corrected and accelerated bootstrapping (BCa-CI) was used to determine the significance of results. An absence of zero value between the upper interval (97.5%) and lower interval (2.5%) bootstrapping results depicts that the result is significant. Our results for direct effects were mainly substantial. Except for one, all other direct effect hypotheses were accepted. Job demands were negatively related, and job resources were positively associated with

**Table 2.** Discriminant Validity: Fornell–Larcker Criteria and Heterotrait–Monotrait Ratio.

Constructs	1	2	3	4	5	6
1. JD	<b>.81</b>					
2. JR	-.08 [.15]	<b>.82</b>				
3. PsyCap	-.05 [.15]	.48 [.52]	<b>.83</b>			
4. W-FC	.45 [.57]	-.25 [.29]	-.23 [.27]	<b>.83</b>		
5. W-FE	-.14 [.17]	.38 [.43]	.49 [.56]	-.35 [.44]	<b>.86</b>	
6. BS	-.33 [.37]	.42 [.45]	.48 [.51]	-.54 [.63]	.53 [.61]	<b>.86</b>

Note.  $\sqrt{\text{AVE}}$  in bold, and HTMT values in square brackets. JD = job demands; JR = job resources; PsyCap = psychological capital; W-FC = work-to-family conflict; W-FE = work-to-family enrichment; BS = balance satisfaction.

**Table 3.** Results of the Direct Effect Hypothesis.

Hypothesis	Path	Coefficients	BCa-CI	Significance
H1	JD > BS	-0.13	[-.20, -.05]	Yes
H2	JR > BS	0.14	[.05, .23]	Yes
H3	JD > W-FC	0.46	[.37, .53]	Yes
H4	JR > W-FE	0.19	[.10, .28]	Yes
H5	W-FC > BS	-0.31	[.40, .23]	Yes
H6	W-FE > BS	0.26	[.40, .23]	Yes
H9	PsyCap > W-FC	-0.13	[-.23, -.02]	Yes
H10	PsyCap > W-FE	0.38	[.27, .47]	Yes
H11	PsyCap > BS	0.2	[.10, .29]	Yes
H12	JD > PsyCap	-0.02	[-.11, .08]	No
H13	JR > PsyCap	0.48	[.38, .56]	Yes
	JD > W-FE	-0.11	[.37, .53]	Yes
	JR > W-FC	-0.13	[-.23, -.04]	Yes

Note. BCa-CI = bias-corrected- confidence interval; JD = job demands; JR = job resources; PsyCap = psychological capital; W-FC = work-to-family conflict; W-FE = work-to-family enrichment; BS = balance satisfaction.

balance satisfaction, indicating that H1 and H2 were accepted. The results are shown in Table 3.

Similarly, job demands were a significant predictor of work-to-family conflict, whereas job resources were a significant positive predictor of work-to-family enrichment as hypothesized. Hence H3 and H4 were also accepted. We also found support for the hypothesized relationship of work-to-family conflict (H5) and work-to-family enrichment (H6) with balance satisfaction. Our results revealed that psychological capital had a significant negative relationship with work-to-family conflict and a significant positive relationship with work-to-family enrichment and balance satisfaction. Therefore H9, H10, and H11 were accepted. Finally, we found that for university faculty in Pakistan, job demands were not significantly related to psychological capital, while job resources had a significant positive relationship with it. Hence, H12 was not substantiated while H13 was accepted. We also tested for two non-hypothesized cross-over relationships as they were part of the best fit model. These relationships depicted the existence of cross-over relationships such that job demands were significantly and negatively related to work-to-family enrichment, and job resources were significantly and negatively related to the work-to-family conflict.

The next step in the structural model analysis was mediation testing. We adopted Zhao et al. (2010) recommended method for mediation analysis. According to this approach, a mediation exists if the indirect effect is significant. In case the direct effect is insignificant, this depicts full mediation; otherwise, the mediation is partial. The partial mediation is complementary if, after multiplying betas of direct and indirect effect, the resulting product remains positive; otherwise, it is competitive. When there are serial mediators, the indirect path passes through both mediators. When there are parallel mediators in the model, the mediation is validated from a specific indirect effect. The results of mediation are indicated in Table 4. It can be seen that all significant mediations were partial and complementary. In addition to hypothesized mediation relationships, we also analyzed mediations that arose due to the cross-over relationship between job demands and work-to-family enrichment and between job resources and work-to-family conflict. Our results were mostly supportive of the hypothesized mediations. Work-to-family conflict mediated the relationship between job demands and balance satisfaction (H7) while work-to-family enrichment mediated the relationship between job resources and balance satisfaction (H8).

**Table 4.** Mediation Results: Specific Indirect Paths.

Hypothesis	Specific indirect path	Path coefficient	95% BCa-Cl	Mediation?
H7	JD > W-FC > BS	-.14	[-.19, -.10]	Yes
H8	JR > W-FE > BS	.05	[.02, .09]	Yes
H14	JD > PsyCap > W-FC	.002	[-.01, .02]	No
H15	JD > PsyCap > BS	-.003	[-.02, .02]	No
H16	JR > PsyCap > W-FE	.18	[.13, .23]	Yes
H17	JR > PsyCap > BS	.10	[.05, .15]	Yes
H18	JD > PsyCap > W-FC > BS	-.001	[-.006, .003]	No
H19	JR > PsyCap > W-FE > BS	.05	[.026, .074]	Yes
	JR > PsyCap > W-FC	-.06	[-.11, -.011]	Yes
	JD > PsyCap > W-FE	-.006	[-.04, .030]	No
	JR > W-FC > BS	.04	[.01, .08]	Yes
	JD > W-FE > BS	-.03	[-.06, -.007]	Yes
	JD > PsyCap > W-FE > BS	-.001	[-.01, .008]	No
	JR > PsyCap > W-FC > BS	.02	[.003, .04]	Yes

Note. The presence of zero value between lower and upper interval depicts insignificance, and all results are based on 5,000 bootstrap samples. BCa-Cl = bias-corrected- confidence interval; JD = job demands; W-FC = work-to-family conflict; BS = balance satisfaction; JR = job resources; W-FE = work-to-family enrichment; PsyCap = psychological capital.

Psychological capital proved to be a mediator when the exogenous variable was job resources, and endogenous variables were work-to-family enrichment (H16) and balance satisfaction (H17). Similarly, the serial mediation of psychological capital and work-to-family enrichment between job resources and balance satisfaction (H19) was also substantiated. However, we could not find support for H14, H15, and H18 in which psychological capital was the single mediator or one of the two mediators, while job demands were exogenous variables. In the non-hypothesized cross-over mediations, we found that work-to-family conflict mediated the linkage between job resources and balance satisfaction.

Similarly, work-to-family enrichment had a significant cross-over mediation effect between job demands and balance satisfaction. The non-hypothesized mediation of psychological capital as a single mediator or first of the two serial mediations existed for all those relationships in which job resources were the endogenous variables. In contrast, no mediation was found when job demands were endogenous.

**Importance-performance analysis.** We conducted an importance-performance analysis (IPA) to determine the importance and performance impact of all exogenous variables on balance satisfaction, work-to-family conflict, work-to-family enrichment, and psychological capital. IPA identifies specific areas of improvement that need to be addressed by management. For any endogenous variable, an exogenous construct may lie within one of the four quadrants of the importance-performance map. To increase the performance of endogenous variables in the future, the exogenous variables which lie in a quadrant with high importance (high path coefficient/total effect) and low production are to be concentrated in managerial interventions (Ringle & Sarstedt, 2016). The results of the IPA are depicted in Table 5.

For balance, job resources followed by psychological capital had the highest importance, while psychological capital and work-to-family enrichment contributed most to performance. Interestingly there is not much gap in the importance of all predictors for work-family balance satisfaction. The results of performance also depicted a positive trend in the current levels of our constructs. It can be noticed that all the positively oriented constructs, including job resources, psychological capital, and work-to-family enrichment, were high in performance. In contrast, the negatively oriented constructs such as job demands and work to the family conflict had a relatively lower performance. For work-to-family conflict, job demands were the most crucial contributor, while psychological capital was contributing most to performance in the current data set. For work-to-family enrichment, psychological capital was most important in terms of effect and performance. For psychological capital, job resources were the most crucial predictor, and it also depicted a good level of performance.

## Discussion

Our study has developed a “full-range model” (Michel & Clark, 2009) of work-family perceptions to investigate how contextual demands and resources from work and family domains and positive psychological resources of psychological capital affect faculty’s satisfaction with work-family balance. We also tested whether work-to-family directions of linking mechanisms (work-to-family conflict and enrichment) explains this relationship. The theoretical model was based upon the JD-R model. To our knowledge, this is the first research to examine the antecedents and mechanisms leading to academic faculty’s satisfaction with work-family balance. In general, the results provided support for our

**Table 5.** Importance-Performance Analysis.

	BS		W-FC		W-FE		PsyCap	
	Imp.	Perf.	Imp.	Perf.	Imp.	Perf.	Imp.	Perf.
JD	-.30	58.82	.58	57.82	-.12	57.82	-.02	57.82
JR	.39	63.57	-.27	63.57	.37	63.57	.48	63.57
PsyCap	.34	71.39	-.21	71.39	.38	71.39	—	—
W-FC	-.31	47.45	—	—	—	—	—	—
W-FE	.26	70.48	—	—	—	—	—	—

Note. BS = balance satisfaction; W-FC = work-to-family conflict; W-FE = work-to-family enrichment; PsyCap = psychological capital; Imp = importance; Perf = performance; JD = job demands; JR = job resources.

hypothesis and also revealed the existence of significant non-hypothesized relationships as well. Our study's results would help to contribute to existing work–family research in many ways.

### Theoretical Implications

*Job resources, job demands, and balance satisfaction.* Our results corroborated with a myriad of previous research conducted in a non-academic context in which job demands lead to higher work-to-family conflict and lower satisfaction with work–family balance. Similarly, we found that resourceful job factors translate into higher work-to-family enrichment and balance satisfaction (Beham & Drobnič, 2010; Beham et al., 2014; Demerouti et al., 2010; Marais et al., 2014; Peeters et al., 2005; Voydanoff, 2004a). These results are consistent with the resource-demand perspective implying that academic work-load, emotional stress, and cognitive pressures stemming from faculty's job decrease their ability to integrate multiple role demands causing inter-role strain (Goode, 1960; Voydanoff, 2005). However, resources arising from faculty's job such as social support at work from supervisor and colleagues, having control over one's job tasks and working time, and sufficient development opportunities at work improve faculty's ability to manage their multi-domain role and lead to a positive evaluation of domain balance.

Interestingly our final model also revealed the existence of a significant cross-over effect of job resources on work-to-family conflict and job demands on work-to-family enrichment. This cross-over effect suggests that demanding workplace factors are likely to reduce the positive influence of work roles on family life. Likewise, if an individual has ample workplace resources, it may help to reduce the interference of work-life on family roles. However, IPA analysis revealed that this crossover effect was weaker than hypothesized differential salient effects. Demands were a more salient predictor of work-to-family conflict, and resources were strongly related to work-to-family enrichment, as consistently reported in previous studies (Beham et al., 2011; H. Liu & Cheung, 2015; Voydanoff, 2004a).

*Role of psychological capital.* One of the crucial contributions of our study is to apply the concept from positive psychology to work–family research. Our results suggested the importance of psychological capital as a personality resource in attaining balance satisfaction. This reinforced Morganson et al.'s (2014) stance that a focus on positive psychological characteristics might help cope with work–family challenges. Previously, Wayne et al. (2020) found a moderate influence of positive personality characteristics of trait resilience and proactive health behavior on balance satisfaction. The IPA indicated that psychological capital had a considerable contribution and profound influence in determining the level of all three types of work–family constructs. It is the most important contributor to work-to-family enrichment and the second most important predictor of balance satisfaction after job resources. We also found support for the mediating role of psychological capital in the relationship of job resources with balance satisfaction. This mediation suggests that psychological capital might be the underlying cognitive mechanism that links contextual resources with evaluative judgment about the state of balance between both domains. Previous researches have suggested that psychological capital is a state-like personality dimension subject to change due to environmental factors. According to gain spiral principle of COR theory resources breeds other resources. Thus, we can concur that job resources will develop an individual's psychological capital which in turn will enhance employees' positive lens of work–family balance (ten Brummelhuis & Bakker, 2012).

On the contrary, the relationship of job demands with psychological capital and its mediating role between job demands and work–family outcomes was not supported in our study. Although these results were unexpected, other studies have also reported an insignificant relationship between stressful job factors and positive psychological capacities. Xanthopoulou et al. (2007) found an insignificant relationship of self-esteem, self-efficacy, and optimism with job demands. In another study, abusive supervision, a type of emotional demand, turned out to be an insignificant predictor of employee's psychological capital (Avey, 2014). Perhaps for academic faculty in Pakistan, the nature of quantitative,

emotional and cognitive demands do not influence their positive psychological capacities due to intrinsic motivation for the academic job and a higher intellect level giving them more self-control on cognitive outcomes. It is quite possible that intrinsic positivity ingrained in the minds of academicians, due to their higher intellect level, does not allow negative situational factors to affect the positive cognitive resource. It is also possible that a strong relationship of job resources with psychological capital might have suppressed the effect of job demands on psychological capital.

**Mediation of conflict and enrichment.** First of all, our results confirmed previous empirical findings regarding the negative relationship of work-to-family conflict with balance satisfaction and the positive relationship of work-to-family enrichment with balance satisfaction (Grawitch et al., 2013; Wayne et al., 2017). Second, we tested Greenhaus and Allen's (2011) postulations that conflict and enrichment are the mediating processes which link contextual and personality antecedents with work–family balance perception. We found support for the hypothesized mediation that job demands enhance the employee experience of the work role, creating interference with family life, which transcends into lower satisfaction with balance. Similarly, resources at the workplace such as social support, autonomy and opportunity for development enhances the perception of work roles improving functioning in family life, leading to a greater work–family balance satisfaction. Besides, our study also indicated cross-over mediation such that work-to-family enrichment and work-to-family conflict partially mediated job demands–balance satisfaction and job resources–balance satisfaction path, respectively. Our results also concur earlier studies that both positive and negative work–family linkages are parallel occurring processes which simultaneously affects the overall perception of balance (Carlson et al., 2009; Gareis et al., 2009). In addition to the cross-over effect, we also established that both types of linkages carry forward the effect of demands and resources onto satisfaction with work–family balance.

**Serial mediation.** Finally, we performed serial mediation analysis. Even though this analysis added complexity to the research model, we were able to elaborate on the role of several mediating constructs that explain how contextual factors may relate to evaluating judgment about work–family balance. Our data suggested a sequential mediation of psychological capital and work-to-family conflict and psychological capital and work-to-family enrichment when job resources were predictors. Still, no such mediation existed when job demands were predictors. Logically, this two-step serial mediation suggests the existence of multiple psychological pathways which carry forward the effect of environmental factors on well-being outcome. In the case of this study, job resources influence individuals' level of psychological capital, which further shapes up conflict and enrichment, which

are both segmented perceptions of work–family linkages, which subsequently affect the work–family balanced appraisal. Our findings complement previous study (Y. E. Choi et al., 2018), which shows that psychological capital and work–family enrichment serially mediated the path between calling and life satisfaction. Although previous research has shown that psychological capital and work–family linking mechanism are related, no research has shown how these two types of constructs function together in linking contextual factors with balance satisfaction.

### **Practical Implications**

Our study has extended the existing work–family research to a new geographical region. We conducted this research in academia, which is scarcely explored in this context before. Since our results conform with many previous studies conducted in the western context (Wayne et al., 2017, 2020), we believe our study has global implications. This study offers various unique insights into university administration who desire their academic faculty to attain higher satisfaction with their work–family balance. A gradual shift from the “professor-based system” to the “market-based system” has made the academic environment contingent upon the external environment and economy driven forces, which are more demanding (Zabrodska et al., 2016). We adopted a holistic approach in our research model and have shown that work–family outcomes have both environmental as well as personality determinants. Our results also depict that academic managers should also monitor the level of the positive and negative effect of work roles on family roles as they are the intermediary variables leading to balance satisfaction. Within academia, managers can utilize these findings to devise suitable structural as well as personality-based interventions to curtail work–family issues among academic staff. The inclusion of psychological capital within our research model has opened new possibilities of human resource development interventions to mitigate work–family challenges (Luthans, 2012), a perspective ignored in previous literature (MacDermid & Wittenborn, 2007).

Our results depict that enhancing resourceful factors and reducing demands at the job improves work–family outcome perception directly. However, our results also indicate that the enhancement of job resources is more important in fostering balance perception in comparison to efforts for demands reduction. Resources are important as they have a stronger relationship with balance satisfaction and also play an important role in enhancing psychological capital. Curtis (2004) argues that the nature of faculty work makes their job boundless as they are always busy in either creating or sharing knowledge. Although recent trends to indulge faculty in a myriad of administrative tasks and publication pressures along with teaching duties have immensely contributed to all three types of workplace demands, the recent economic recession and increasing competition may justify the

existence of higher job demands. We argue that university administration needs to invest in a redesign of the job environment for higher flexibility, autonomy and greater control over their job time, task and space and an opportunity to learn and grow. The management should also encourage a culture of support and teamwork to enhance faculty's resource of social support. Another potential benefit of enhancing job resources is that they help to attenuate the associated psychological and physiological cost of job demands. However, greater emphasis on job resources does not indicate that the faculty's workload and emotional and cognitive job pressures are left unoptimized as they contribute to work–family perception outcomes and most important predictor for work-to-family conflict.

Besides, enhancing faculty's psychological capital through training interventions (Avey et al., 2008) can also be a practical and cost-effective solution to enhance work–family balance, especially when it is not viable to change situational factors. This approach is especially pertinent to public sector universities in Pakistan which are severely hampered by budget constraints. It is unrealistic to believe that public sector universities in Pakistan have enough to spare for many structural interventions (e.g., flexible job designs or reduction in academic workload) which create a family-supportive work environment (Naeem et al., 2019). Therefore, human resource development practitioners in universities can organize training workshops for faculty to enhance each of the four dimensions of psychological capital in synchrony. This workshop will have larger benefits because consistent literature has linked psychological capital with performance, creativity and positive attitudes (Avey et al., 2011; Avey, Luthans, & Youssef, 2010; Sweetman et al., 2011). In addition, faculty high in psychological capital would be better equipped to deal with the work-based stressors and successfully manage the resources leading to an overall improvement in their well-being and performance (Avey, Luthans, Smith, et al., 2010; Luthans & Youssef-Morgan, 2017)

## Limitations and Future Research Directions

We acknowledge that every work has its weaknesses. First, we based our findings on single-source cross-sectional data, which can lead to common method bias in results. We took suggestions from the literature (Podsakoff et al., 2003) and addressed this issue during the design of the questionnaire and developing hypotheses in which direction of relationships comply with theory. We also conducted a statistical test which revealed that our data had no issue with a common method bias. However, we suggest future researchers move beyond self-report data. They can benefit by capturing perceptions of role partners (spouses, colleagues or supervisors) toward contextual factors and the work–family interface.

The cross-sectional nature of data-limited our scope to make causal inferences. Longitudinal studies in this regard can be more useful to delineate causal pathways and also minimize the possibility of common method bias. Second, we collected data using convenient sampling from university faculty. Our data were well dispersed in terms of geography, gender, age, marital status, parental status, education, and designation. Yet, we still caution against the generalization of our results to the academic and non-academic population. However, we also believe our results have a moderate level of external validity as we adopted established measures for the constructs, and we applied a ubiquitous model to develop our framework. Our results are aligned with the existing work–family and JD-R studies (Lucas, 2003).

## Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

## Funding

The author(s) received no financial support for the research, authorship, and/or publication of this article.

## Ethical Statement

The research adhered to ethical guidelines of survey research, that is, informed consent, and ensured confidentiality of an individual's data. Institutional permission to conduct this research was taken priorly from the Faculty of Management (AHIBS), UTM.

## ORCID iDs

Farhan Sarwar  <https://orcid.org/0000-0001-8922-5123>

Siti Aisyah Panatik  <https://orcid.org/0000-0002-6500-1608>

## References

- Abendroth, A.-K., & Den Dulk, L. (2011). Support for the work-life balance in Europe: The impact of state, workplace and family support on work-life balance satisfaction. *Work, Employment & Society, 25*(2), 234–256.
- Aleksić, D., Mihelič, K. K., Černe, M., & Škerlavaj, M. (2017). Interactive effects of perceived time pressure, work-family balance satisfaction (SWFB), and leader-member exchange (LMX) on creativity. *Personnel Review, 46*(3), 1–39.
- Amstad, F. T., Meier, L. L., Fasel, U., Elfering, A., & Semmer, N. K. (2011). A meta-analysis of work–family conflict and various outcomes with a special emphasis on cross-domain versus matching-domain relations. *Journal of Occupational Health Psychology, 16*(2), 151–169. <https://doi.org/10.1037/a0022170>
- Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin, 103*(3), 411–423. [https://doi.org/0033-2909/88/\\$00.75](https://doi.org/0033-2909/88/$00.75)
- Avey, J. B. (2014). The left side of psychological capital new evidence on the antecedents of PsyCap. *Journal of Leadership & Organizational Studies, 21*(2), 141–149. <https://doi.org/10.1177/1548051813515516>

- Avey, J. B., Luthans, F., & Mhatre, K. H. (2008). A call for longitudinal research in positive organizational behavior. *Journal of Organizational Behavior, 29*(5), 705–711. <https://doi.org/10.1002/job.517>
- Avey, J. B., Luthans, F., Smith, R. M., & Palmer, N. F. (2010). Impact of positive psychological capital on employee well-being over time. *Journal of Occupational Health Psychology, 15*(1), 17–28. <https://doi.org/10.1037/a0016998>
- Avey, J. B., Luthans, F., & Youssef, C. M. (2010). The additive value of positive psychological capital in predicting work attitudes and behaviors. *Journal of Management, 36*(2), 430–452. <https://doi.org/10.1177/0149206308329961>
- Avey, J. B., Reichard, R. J., Luthans, F., & Mhatre, K. H. (2011). Meta-analysis of the impact of positive psychological capital on employee attitudes, behaviors, and performance. *Human Resource Development Quarterly, 22*(2), 127–152. <https://doi.org/10.1016/j.leaqua.2011.02.004>
- Bakker, A. B., & Demerouti, E. (2007). The job demands-resources model: State of the art. *Journal of Managerial Psychology, 22*(3), 309–328. <https://doi.org/10.1108/02683940710733115>
- Bakker, A. B., Demerouti, E., Taris, T. W., Schaufeli, W. B., & Schreurs, P. J. (2003). A multigroup analysis of the job demands-resources model in four home care organizations. *International Journal of Stress Management, 10*(1), 16–38. <https://doi.org/https://doi.org/10.1037/1072-5245.10.1.16>
- Beham, B., & Drobnič, S. (2010). Satisfaction with work-family balance among German office workers. *Journal of Managerial Psychology, 25*(6), 669–689. <https://doi.org/10.1108/02683941011056987>
- Beham, B., Drobnič, S., & Präg, P. (2011). Work demands and resources and the work-family interface: Testing a salience model on German service sector employees. *Journal of Vocational Behavior, 78*(1), 110–122. <https://doi.org/10.1016/j.jvb.2010.07.008>
- Beham, B., Drobnič, S., & Präg, P. (2014). The work-family interface of service sector workers: A comparison of work resources and professional status across five European countries. *Applied Psychology, 63*(1), 29–61. <https://doi.org/10.1111/apps.12012>
- Cahill, K. E., McNamara, T. K., Pitt-Catsoupes, M., & Valcour, M. (2015). Linking shifts in the national economy with changes in job satisfaction, employee engagement and work-life balance. *Journal of Behavioral and Experimental Economics, 56*, 40–54. <https://doi.org/10.1016/j.socec.2015.03.002>
- Carlson, D. S., Grzywacz, J. G., & Zivnuska, S. (2009). Is work—Family balance more than conflict and enrichment? *Human Relations, 62*(10), 1459–1486. <https://doi.org/10.1177/0018726709336500>
- Carlson, D. S., Kacmar, K. M., Wayne, J. H., & Grzywacz, J. G. (2006). Measuring the positive side of the work-family interface: Development and validation of a work-family enrichment scale. *Journal of Vocational Behavior, 68*(1), 131–164. <https://doi.org/10.1016/j.jvb.2005.02.002>
- Carlson, D. S., Kacmar, K. M., & Williams, L. (2000). Construction and initial validation of a multidimensional measure of work-family conflict. *Journal of Vocational Behavior, 56*(2), 249–276. <https://doi.org/10.1006/jvbe.1999.1713>
- Casper, W., DeHauw, S., Wayne, J. H., & Greenhaus, J. H. (2014, May). A review of the meaning and measurement of work-life balance. 29th Annual Conference of the Society for Industrial-organizational Psychology, Honolulu, HI.
- Cassidy, T., McLaughlin, M., & McDowell, E. (2014). Bullying and health at work: The mediating roles of psychological capital and social support. *Work & Stress, 28*(3), 255–269. <https://doi.org/10.1080/02678373.2014.927020>
- Choi, J., Kim, A., Han, K., Ryu, S., Park, J. G., & Kwon, B. (2017). Antecedents and consequences of satisfaction with work-family balance: A moderating role of perceived insider status. *Journal of Organizational Behavior, 39*, 1–11. <https://doi.org/10.1002/job.2205>
- Choi, Y. E., Cho, E., Jung, H. J., & Sohn, Y. W. (2018). Calling as a predictor of life satisfaction: The roles of psychological capital, work-family enrichment, and boundary management strategy. *Journal of Career Assessment, 26*, 567–582.
- Clark, S. (2000). Work/family border theory: A new theory of work/family balance. *Human Relations, 53*(6), 747–770.
- Cohen, J. (1988). *The analysis of variance* (Vol. 2). New York: Academic Press.
- Curtis, J. W. (2004). Balancing work and family for faculty: Why it's important. *Academe-Bulletin of the AAUP, 90*, 21–23.
- Daukantaitė, D., Hefferon, K., & Sikström, S. (2016). The harmony in life scale complements the satisfaction with life scale: Expanding the conceptualization of the cognitive component of subjective well-being. *Social Indicators Research, 126*(2), 893–919.
- Demerouti, E., Bakker, A. B., & Voydanoff, P. (2010). Does home life interfere with or facilitate job performance? *European Journal of Work & Organizational Psychology, 19*(2), 128–149. <https://doi.org/10.1080/13594320902930939>
- Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment, 49*(1), 71–75.
- Dijkstra, T. K., & Henseler, J. (2015). Consistent partial least squares path modeling. *Mis Quarterly, 39*(2). <https://doi.org/10.25300/MISQ/2015/39.2.02>
- Fornell, C., & Larcker, D. F. (1981). Structural equation models with unobservable variables and measurement error: Algebra and statistics. *Journal of Marketing Research, 18*(3), 382–388.
- Frone, M. R. (2003). *Work-family balance*. American Psychological Association.
- Gareis, K. C., Barnett, R. C., Ertel, K. A., & Berkman, L. F. (2009). Work-family enrichment and conflict: Additive effects, buffering, or balance? *Journal of Marriage and Family, 71*(3), 696–707.
- Geisser, S. (1975). The predictive sample reuse method with applications. *Journal of the American Statistical Association, 70*(350), 320–328.
- Goode, W. (1960). A theory of role strain. *American Sociological Review, 25*(4), 483–496.
- Grawitch, M. J., Maloney, P. W., Barber, L. K., & Mooshegian, S. E. (2013). Examining the nomological network of satisfaction with work-life balance. *Journal of Occupational Health Psychology, 18*(3), 276–284. <https://doi.org/10.1037/a0032754>
- Greenhaus, J. H., & Allen, T. D. (2011). Work-family balance: A review and extension of the literature. In J. C. Quick & L. E. Tetrick (Eds.), *Handbook of occupational health psychology* (Vol. 2, pp. 165–183). <https://doi.org/10.1037/a0032754>
- Greenhaus, J. H., Allen, T. D., & Spector, P. E. (2006). Health consequences of work-family conflict: The dark side of the work-family interface. In *Employee health, coping and methodologies* (pp. 61–98). Emerald Group. [https://doi.org/10.1016/S1479-3555\(05\)05002-X](https://doi.org/10.1016/S1479-3555(05)05002-X)



- Greenhaus, J. H., & Beutell, N. J. (1985). Sources of conflict between work and family roles. *Academy of Management Review*, *10*(1), 76–88. <https://doi.org/10.2307/258214>
- Greenhaus, J. H., & Powell, G. N. (2006). When work and family are allies: A theory of work-family enrichment. *The Academy of Management Review*, *31*(1), 72–92. <https://doi.org/10.5465/AMR.2006.19379625>
- Hair, J. F., Hult, G. T. M., Ringle, C., & Sarstedt, M. (2017). *A primer on partial least squares structural equation modeling (PLS-SEM)* (2nd ed.). Sage.
- Hair, J. F., Matthews, L. M., Matthews, R. L., & Sarstedt, M. (2017). PLS-SEM or CB-SEM: Updated guidelines on which method to use. *International Journal of Multivariate Data Analysis*, *1*(2), 107–123. <https://doi.org/10.1504/IJMDA.2017.087624>
- Harman, D. (1967). A single factor test of common method variance. *Journal of Psychology*, *35*(1967), 359–378.
- Hayward, F. (2015). *Higher education transformation in Pakistan: Political and economic instability*. International Higher Education.
- Henseler, J., Dijkstra, T. K., Sarstedt, M., Ringle, C. M., Diamantopoulos, A., Straub, D. W., Ketchen Jr, D. J., Hair, J. F., Hult, G. T. M., & Calantone, R. J. (2014). Common beliefs and reality about PLS: Comments on Rönkkö and Evermann (2013). *Organizational Research Methods*, *17*(2), 182–209. <https://doi.org/10.1016/j.lrp.2014.02.005>
- Henseler, J., Hubona, G., & Ray, P. A. (2016). Using PLS path modeling in new technology research: Updated guidelines. *Industrial Management & Data Systems*, *116*(1), 2–20. <https://doi.org/10.1108/IMDS-09-2015-0382>
- Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, *43*(1), 115–135.
- Hobfoll, S. E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American Psychologist*, *44*(3), 513–524.
- Hobfoll, S. E. (2002). Social and psychological resources and adaptation. *Review of General Psychology*, *6*(4), 307–324.
- Kacmar, K. M., Wayne, J. H., Carlson, D. S., Ferguson, M., & Whitten, D. (2014). A short and valid measure of work-family enrichment. *Journal of Occupational Health Psychology*, *19*(1), 32–45. <https://doi.org/10.1037/a0035123>
- Karatepe, O. M., & Karadas, G. (2014). The effect of psychological capital on conflicts in the work-family interface, turnover and absence intentions. *International Journal of Hospitality Management*, *43*, 132–143. <https://doi.org/10.1016/j.ijhm.2014.09.005>
- Karatepe, O. M., & Karadas, G. (2015). Do psychological capital and work engagement foster frontline employees' satisfaction? A study in the hotel industry. *International Journal of Contemporary Hospitality Management*, *27*, 1254–1278. <https://www.econbiz.de/Record/do-psychological-capital-and-work-engagement-foster-frontline-employees-satisfaction-a-study-in-the-hotel-industry-karatepe-osman/10011403077>
- Khan, A., Yusoffa, R. B. M., & Azam, K. (2014). Factors of Job Stress among university teachers in Pakistan A conceptual review. *Journal of Management Info*, *2*(1), 28–30.
- Lapierre, L. M., Li, Y., Kwan, H. K., Greenhaus, J. H., DiRenzo, M. S., & Shao, P. (2018). A meta-analysis of the antecedents of work-family enrichment. *Journal of Organizational Behavior*, *39*(4), 385–401. <https://doi.org/10.1002/job.2234>
- Larson, M., & Luthans, F. (2006). Potential added value of psychological capital in predicting work attitudes. *Journal of Leadership & Organizational Studies*, *13*(2), 75–92. <https://doi.org/10.1177/10717919070130020601>
- Lee, N., & Cadogan, J. W. (2013). Problems with formative and higher-order reflective variables. *Journal of Business Research*, *66*(2), 242–247. <https://doi.org/10.1016/j.jbusres.2012.08.004>
- Liu, H., & Cheung, F. M. (2015). The role of work-family role integration in a job demands-resources model among Chinese secondary school teachers. *Asian Journal of Social Psychology*, *18*(4), 288–298. <https://doi.org/10.1111/ajsp.12103>
- Liu, L., Chang, Y., Fu, J., Wang, J., & Wang, L. (2012). The mediating role of psychological capital on the association between occupational stress and depressive symptoms among Chinese physicians: A cross-sectional study. *BMC Public Health*, *12*(1), Article 219. <https://doi.org/10.1186/1471-2458-12-219>
- Lohmoeller, J.-B. (1989). *Latent variable path analysis with partial least squares*. Springer-Verlag Berlin Heidelberg. <https://doi.org/10.1007/978-3-642-52512-4>
- Lorenz, T., Beer, C., Pütz, J., & Heinitz, K. (2016). Measuring psychological capital: Construction and validation of the compound PsyCap scale (CPC-12). *PLoS ONE*, *11*(4), Article e0152892. <https://doi.org/10.1371/journal.pone.0152892>
- Lu, L., Chang, T. T., Kao, S. F., & Cooper, C. L. (2015). Testing an integrated model of the work-family interface in Chinese employees: A longitudinal study. *Asian Journal of Social Psychology*, *18*(1), 12–21. <https://doi.org/10.1111/ajsp.12081>
- Lucas, J. W. (2003). Theory-testing, generalization, and the problem of external validity. *Sociological Theory*, *21*(3), 236–253.
- Luthans, B. C., Luthans, K. W., & Jensen, S. M. (2012). The impact of business school students' psychological capital on academic performance. *Journal of Education for Business*, *87*(5), 253–259. <https://doi.org/10.1080/08832323.2011.609844>
- Luthans, F. (2002a). The need for and meaning of positive organizational behavior. *Journal of Organizational Behavior*, *23*(6), 695–706. <https://doi.org/10.1002/job.165>
- Luthans, F. (2002b). Positive organizational behavior: Developing and managing psychological strengths. *The Academy of Management Executive*, *16*(1), 57–72.
- Luthans, F. (2012). Psychological capital: Implications for HRD, retrospective analysis, and future directions. *Human Resource Development Quarterly*, *23*(1), 1–8. <https://doi.org/10.1002/hrdq.21119>
- Luthans, F., Avey, J. B., Avolio, B. J., Norman, S. M., & Combs, G. M. (2006). Psychological capital development: Toward a micro-intervention. *Journal of Organizational Behavior*, *27*(3), 387–393.
- Luthans, F., Norman, S. M., Avolio, B. J., & Avey, J. B. (2008). The mediating role of psychological capital in the supportive organizational climate—Employee performance relationship. *Journal of Organizational Behavior*, *29*(2), 219–238. <https://doi.org/10.1186/1471-2458-12-219>
- Luthans, F., Youssef, C. M., Sweetman, D. S., & Harms, P. D. (2013). Meeting the leadership challenge of employee well-being through relationship PsyCap and health PsyCap. *Journal of Leadership & Organizational Studies*, *20*(1), 118–133. <https://doi.org/10.1177/1548051812465893>

- Luthans, F., & Youssef-Morgan, C. M. (2017). Psychological capital: An evidence-based positive approach. *Annual Review of Organizational Psychology and Organizational Behavior*, 4(1), 339–366. <https://doi.org/10.1146/annurev-orgpsych-032516-113324>
- MacDermid, S. M., & Wittenborn, A. K. (2007). Lessons from work—Life research for developing human resources. *Advances in Developing Human Resources*, 9(4), 556–568. <https://doi.org/10.1177/1523422307305493>
- Mahmood, K. (2016). *Overall assessment of the higher education sector, higher education commission of Pakistan*. <https://hec.gov.pk/english/universities/projects/TESP/Documents/FR-Assessment%20HE%20Sector.pdf>
- Marais, E., De Klerk, M., Nel, J. A., & De Beer, L. (2014). The antecedents and outcomes of work-family enrichment amongst female workers. *SA Journal of Industrial Psychology*, 40(1), 1–14. <https://doi.org/10.4102/sajip.v40i1.1186>
- Matthews, R. A., Kath, L. M., & Barnes-Farrell, J. L. (2010). A short, valid, predictive measure of work–family conflict: Item selection and scale validation. *Journal of Occupational Health Psychology*, 15(1), 75–90. <https://doi.org/10.1037/a0017443>
- McNall, L. A., Nicklin, J. M., & Masuda, A. D. (2010). A meta-analytic review of the consequences associated with work–family enrichment. *Journal of Business Psychology*, 25, 381–396. <https://doi.org/10.1007/s10869-009-9141-1>
- McNall, L. A., Scott, L. D., & Nicklin, J. M. (2015). Do positive affectivity and boundary preferences matter for work–family enrichment? A study of human service workers. *Journal of Occupational Health Psychology*, 20(1), 93–104.
- McNamara, T. K., Pitt-Catsoupes, M., Matz-Costa, C., Brown, M., & Valcour, M. (2013). Across the continuum of satisfaction with work–family balance: Work hours, flexibility-fit, and work–family culture. *Social Science Research*, 42(2), 283–298.
- Michel, J. S., & Clark, M. A. (2009). Has it been affect all along? A test of work-to-family and family-to-work models of conflict, enrichment, and satisfaction. *Personality and Individual Differences*, 47(3), 163–168.
- Michel, J. S., Clark, M. A., & Jaramillo, D. (2011). The role of the Five Factor Model of personality in the perceptions of negative and positive forms of work–nonwork spillover: A meta-analytic review. *Journal of Vocational Behavior*, 79(1), 191–203. <https://doi.org/10.1016/j.jvb.2010.12.010>
- Morganson, V. J., Litano, M. L., & O’Neill, S. K. (2014). Promoting work–family balance through positive psychology: A practical review of the literature. *The Psychologist-Manager Journal*, 17(4), 221–244. <https://doi.org/10.1037/mgr0000023>
- Mudrak, J., Zabrodska, K., Kveton, P., Jelinek, M., Blatny, M., Solcova, I., & Machovcova, K. (2018). Occupational well-being among university faculty: A job demands-resources model. *Research in Higher Education*, 59, 325–348.
- Naeem, A., Mirza, N. H., Ayyub, R. M., & Lodhi, R. N. (2019). HRM practices and faculty’s knowledge sharing behavior: Mediation of affective commitment and affect-based trust. *Studies in Higher Education*, 44(3), 499–512.
- Parveen, A., Rashid, K., Iqbal, M. Z., & Khan, S. (2011). System and reforms of higher education in Pakistan. *International Journal of Business and Social Science*, 2(20). [https://ijbssnet.com/journals/Vol\\_2\\_No\\_20\\_November\\_2011/28.pdf](https://ijbssnet.com/journals/Vol_2_No_20_November_2011/28.pdf)
- Paterson, T. A., Luthans, F., & Jeung, W. (2014). Thriving at work: Impact of psychological capital and supervisor support. *Journal of Organizational Behavior*, 35, 434–446. <https://doi.org/10.1002/job.1907>
- Pattusamy, M., & Jacob, J. (2015). A test of Greenhaus and Allen (2011) model on work-family balance. *Current Psychology*, 36, 193–202. <https://doi.org/10.1007/s12144-015-9400-4>
- Pattusamy, M., & Jacob, J. (2016). The mediating role of family-to-work conflict and work-family balance in the relationship between family support and family satisfaction: A three path mediation approach. *Current Psychology*, 36, 812–822. <https://doi.org/10.1007/s12144-016-9470-y>
- Peeters, M. C., Montgomery, A., Bakker, A. B., & Schaufeli, W. B. (2005). Balancing work and home: How job and home demands are related to burnout. *International Journal of Stress Management*, 12(1), 43–61. <https://doi.org/10.1037/1072-5245.12.1.43>
- Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879–903.
- Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods*, 40(3), 879–891. <https://doi.org/10.3758/BRM.40.3.879>
- Rehman, R. R. (2015). Relating individual demographics, work-family conflict and decision making styles of faculty members in higher education sector of Pakistan. *VFAST Transactions on Education and Social Sciences*, 5(2), 51–63. <https://doi.org/10.21015/vtess.v5i2.197>
- Ringle, C. M., & Sarstedt, M. (2016). Gain more insight from your PLS-SEM results: The importance-performance map analysis. *Industrial Management & Data Systems*, 116(9), 1865–1886. <https://doi.org/10.1108/IMDS-10-2015-0449>
- Ringle, C. M., Wende, S., & Becker, J.-M. (2015). SmartPLS 3. *SmartPLS GmbH*. <http://www.smartpls.com>
- Sarstedt, M., Ringle, C. M., & Hair, J. F. (2017). Partial least squares structural equation modeling. In C. Homburg, M. Klarman, & A. Vomberg (Eds.), *Handbook of market research* (pp. 1–40). Springer.
- Shin, J. C., & Jung, J. (2014). Academics job satisfaction and job stress across countries in the changing academic environments. *Higher Education*, 67(5), 603–620.
- Siu, O. L. (2013). Psychological capital, work well-being, and work-life balance among Chinese employees: A cross-lagged analysis. *Journal of Personnel Psychology*, 12(4), 170–181. <https://doi.org/10.1027/1866-5888/a000092>
- Stone, M. (1974). Cross-validators choice and assessment of statistical predictions. *Journal of the Royal Statistical Society. Series B (Methodological)*, 36, 111–147.
- Sweetman, D., Luthans, F., Avey, J. B., & Luthans, B. C. (2011). Relationship between positive psychological capital and creative performance. *Canadian Journal of Administrative Sciences/Revue Canadienne des Sciences de l’Administration*, 28(1), 4–13. <https://doi.org/10.1002/cjas.175>
- Taqi, A. M., Itrat, A., Qidwai, W., & Qadri, Z. (2007). Depression in the elderly: Does family system play a role? A cross-sectional study. *BMC Psychiatry*, 7(1), Article 57 <https://doi.org/10.1186/1471-244X-7-57>

- ten Brummelhuis, L. L., & Bakker, A. B. (2012). A resource perspective on the work-home interface: The work-home resources model. *American Psychologist*, *67*(7), 545–556. <https://doi.org/10.1002/hrdq.21119>
- Tims, M., & Bakker, A. B. (2010). Job crafting: Towards a new model of individual job redesign. *SA Journal of Industrial Psychology*, *36*(2), 1–9.
- Torp, S., Lysfjord, L., & Midje, H. H. (2018). Workaholism and work-family conflict among university academics. *Higher Education*, *76*, 1071–1090.
- Valcour, M. (2007). Work-based resources as moderators of the relationship between work hours and satisfaction with work-family balance. *Journal of Applied Psychology*, *92*(6), 1–12. <https://doi.org/10.1037/0021-9010.92.6.1512>
- Van Veldhoven, M., & Meijman, T. (1994). *Questionnaire on the experience and assessment of work: VBBA—English version*. Amsterdam National Research Institute for Working Conditions.
- Voydanoff, P. (2004a). The effects of work demands and resources on work-to-family conflict and facilitation. *Journal of Marriage and Family*, *66*(2), 398–412. <https://doi.org/j.1741-3737.2004.00028.x>
- Voydanoff, P. (2004b). Implications of work and community demands and resources for work-to-family conflict and facilitation. *Journal of Occupational Health Psychology*, *9*(4), 275–285.
- Voydanoff, P. (2005). Toward a conceptualization of perceived work-family fit and balance: A demands and resources approach. *Journal of Marriage and Family*, *67*(4), 822–836. <https://doi.org/j.1741-3737.2005.00178.x>
- Watanabe, M., & Falci, C. D. (2014). A demands and resources approach to understanding faculty turnover intentions due to work-family balance. *Journal of Family Issues*, *37*(3), 393–415. <https://doi.org/10.1177/0192513X14530972>
- Watanabe, M., & Falci, C. D. (2017). Workplace faculty friendships and work-family culture. *Innovative Higher Education*, *42*(2), 113–125.
- Wayne, J. H., Butts, M. M., Casper, W. J., & Allen, T. D. (2017). In search of balance: A conceptual and empirical integration of multiple meanings of work-family balance. *Personnel Psychology*, *70*, 167–210. <https://doi.org/10.1111/peps.12132>
- Wayne, J. H., Casper, W., & Allen, T. D. (2011, August). What is work-family balance? A methodological review and empirical examination. *Academy of Management Annual Meeting, San Antonio, TX, United States*.
- Wayne, J. H., Matthews, R., Crawford, W., & Casper, W. J. (2020). Predictors and processes of satisfaction with work-family balance: Examining the role of personal, work, and family resources and conflict and enrichment. *Human Resource Management*.
- Wayne, J. H., Michel, J. S., & Matthews, R. A. (2016). Is it who you are that counts? The importance of personality and values to the work-family experience. In Tammy D. Allen & Lillian T. Eby (Eds.), *The Oxford Handbook of Work and Family* (pp. 68–80). New York: Oxford University Press.
- Winefield, H. R., Boyd, C., & Winefield, A. H. (2014). Work-family conflict and well-being in university employees. *The Journal of Psychology*, *148*(6), 683–697.
- Winslow, S., & Davis, S. N. (2016). Gender inequality across the academic life course. *Sociology Compass*, *10*(5), 404–416.
- Xanthopoulou, D., Bakker, A. B., Demerouti, E., & Schaufeli, W. B. (2007). The role of personal resources in the job demands-resources model. *International Journal of Stress Management*, *14*(2), 121–141. <https://doi.org/10.1037/1072-5245.14.2.121>
- Youssef-Morgan, C. M. (2014). Advancing OB research an illustration using psychological capital. *Journal of Leadership & Organizational Studies*, *21*(2), 130–140.
- Yusoff, R. M., & Khan, F. (2013). Stress and burnout in the higher education sector in Pakistan: A systematic review of literature. *Research Journal of Recent Sciences*, *2*(11), 90–98.
- Zabrodska, K., Mudrak, J., Kveton, P., Blatný, M., Machovcova, K., & Solcova, I. (2016). Keeping marketisation at bay: The quality of academic worklife in Czech universities. *Sociologicky Casopis/ Czech Sociological Review*, *52*(3), 347–374. <https://doi.org/10.13060/00380288.2016.52.3.262>
- Zábrodská, K., Mudrák, J., Šolcová, I., Květon, P., Blatný, M., & Machovcová, K. (2017). Burnout among university faculty: The central role of work-family conflict. *Educational Psychology*, *38*, 800–819. <https://doi.org/10.1080/01443410.2017.1340590>
- Zhao, X., Lynch, J. G., Jr., & Chen, Q. (2010). Reconsidering Baron and Kenny: Myths and truths about mediation analysis. *Journal of Consumer Research*, *37*(2), 197–206.