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Family, Employment, and Individual Resource-Based Antecedents of Maternal Work-Family Enrichment from Infancy through Middle Childhood

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Abstract

This study used data from the NICHD Study of Early Child Care and Youth Development ($N=1,019$) to examine family, employment, and individual antecedents of maternal work-family enrichment from infancy through middle childhood. Work-family conflict and important confounding factors were controlled. From the family domain, higher income-to-needs ratio and social support were associated with higher work-family enrichment. From the employment domain, greater job rewards, benefits of employment for children, and work commitment were associated with higher work-family enrichment. From the individual domain, higher maternal education and extroversion were associated with higher work-family enrichment. No family, employment, and individual characteristics were associated with work-family *conflict* across time except for partner intimacy. In general, the results supported antecedents of work-family enrichment that supply needed resources. The present study contributed to the literature by identifying antecedents of maternal work-family enrichment across early child developmental stages, which goes beyond examinations of particular life stages and a work-family conflict perspective. Implications for theory and practice are discussed.

Keywords

work-family enrichment; resources; employment; family; individual

Maternal employment is normative in the United States with 69.9 percent of mothers with children under age 18 employed during 2013 (U.S. Bureau of Labor Statistics, 2014). This normative experience justifies the need for a better understanding of the maternal work-family interface given its association with various indicators of mothers' physical and psychological functioning, relationship quality, job outcomes, and life satisfaction (Frone, 2003).

Although a conflict perspective has dominated research on the work-family interface (Eby, Casper, Lockwood, Bordeaux, & Brinley, 2005), the positive side of combining family and employment roles needs to and has begun receiving increased attention (Greenhaus & Powell, 2006). We focus on work-family enrichment in this study, defined as the extent to

which experiences in one domain (i.e., family or employment domain) improve quality of life in the other domain (Greenhaus & Powell; Wayne, 2009). Indicators of work-family enrichment include developmental, affective, capital, and efficiency gains from combining family and employment roles as well as enhanced individual functioning in the family and employment domains (Marshall & Barnett, 1993).

Theory (Voydanoff, 2005) and research (Stephens, Franks, & Atienza, 1997) have highlighted that work-family conflict and enrichment are distinct constructs. Conflict and enrichment are only moderately correlated (Grzywacz & Bass, 2003), and demands (e.g., caring for young children) are more likely to predict work-family conflict whereas resources (e.g., social support) are more likely to predict enrichment (Cinamon & Rich, 2010). As such, an investigation of salient antecedents of maternal work-family enrichment needs to go beyond the typically identified antecedents of maternal work-family conflict. In the present study, we seek to identify unique antecedents of work-family enrichment by controlling for work-family conflict.

In the scant body of existing research, most studies have examined antecedents of work-family enrichment without specifying the temporal context (Wayne, Grzywacz, Carlson, & Kacmar, 2007). The present study used five-wave longitudinal data from the NICHD Study of Early Child Care and Youth Development (SECCYD) to examine family, employment, and individual antecedents of maternal work-family enrichment from infancy to middle childhood. Mothers move in and out of the labor force and/or change work hour intensity as family responsibilities change from childbirth through primary school years (Kaufman & Uhlenberg, 2000). It is important, therefore, to address the key antecedents of dynamic appraisals of work-family enrichment across various stages of child development.

Theoretical and Empirical Foundation

The concept of work-family enrichment has long been proposed and is fundamentally rooted in role expansion theory (Barnett & Hyde, 2001; Marks, 1977). The basic idea of role expansion theory in explaining work-family enrichment is that active engagement in both employment and family domains provides access to opportunities and experiences that contribute to individual fulfillment. Voydanoff's (2008) model further emphasizes the importance of structural and psychological assets as relevant resources in enhancing work-family enrichment. She used an ecological systems approach to articulate a conceptual model that examines demands and resources within family, employment, and individual domains as well as central theoretical constructs of work-family interface, work-family fit, and personal outcomes such as role performance, role quality, and individual well-being.

Voydanoff (2008) defined demands as "structural or psychological claims associated with role requirements, expectations, and norms to which individuals must respond or adapt by exerting physical or mental effort" (p. 39). She defined resources as "structural or psychological assets that could be utilized to facilitate performance, reduce demands, or generate additional resources" (p. 39). From her perspective, the cognitive appraisals of work-family conflict and enrichment depend upon the demands and resources from family, employment, and individual domains (Voydanoff, 2004). Theoretically, demands and

resources may relate differently to work-family conflict and work-family enrichment. Specifically, demands may be relatively salient for work-family conflict by limiting individuals' capacities to meet obligations in a given life domain. Resources, on the other hand, may shape work-family enrichment by improving family and employment role performance and individual wellbeing through skill transfers and psychological enhancement (Grzywacz, 2002; Voydanoff, 2004).

Grounded in employment literature, Conservation of Resources (COR) theory (Hobfoll, 2001) provides an explicit heuristic for identifying types of resources: energy resources, condition resources, and support resources. Energy resources aid in the acquisition of time, money, or knowledge and thus provide opportunities for enrichment across life domains; condition resources provide job prestige and feelings of accomplishment that may promote a sense of enrichment; support resources may lead to elevated enrichment by preserving energy and condition resources.

Voydanoff's (2008) theorizing about the work-family interface also guides this study because of its central focus on the importance of temporal context. She posits that the work-family enrichment needs to be examined across time because family, employment, and individual resources may occur and change over time. In addition, mothers' experiences, skills, and personal expertise may accumulate during the early childrearing years, which constitute part of the temporal context (Grzywacz, Almeida, & McDonald, 2002). As such, resources are conceptualized as dynamic in this study and their value in enhancing mothers' positive appraisals of enrichment across the early child-rearing years is examined. Despite the wide recognition of the existence and importance of work-family enrichment, the specific resources that are associated with work-family enrichment remain unclear. The conceptual model we developed to guide this study is shown in Figure 1.

A limited body of research suggests that particular family, employment, and individual resources may be salient antecedents of work-family enrichment (Aryee, Srinivas, & Tan, 2005; Voydanoff, 2005). Yet, three important gaps remain in this empirical literature. First, most studies used samples that included both mothers with children and childfree female employees (Voydanoff, 2005), which complicates identifying resource-based antecedents of work-family enrichment for employed mothers. In addition, some studies recruited mothers with a child under the age of 16 or 18 (Grzywacz et al., 2002; Hill, 2005) whereas others did not report the age of the child (Aryee et al., 2005). As such, it is unclear whether the identified resources for work-family enrichment could be applied to employed mothers with young children. Second, most studies used a cross-sectional design. For example, Carlson et al. (2011) examined the antecedents of maternal work-family enrichment during infancy and found that employment resources such as maternal schedule control was associated with greater work-family enrichment scores. As an exception, Butler, Grzywacz, Bass, and Linney (2005) used a daily diary method (i.e., a short-term longitudinal design) and found that work-family enrichment was associated positively with higher employment control and skill levels during childhood. The functional value of these resources across developmental periods was not examined. Finally, research on antecedents of work-family enrichment typically has failed to adjust for important confounding variables and work-family conflict, which may have led to biased results.

To address these gaps, the present study used a long-term longitudinal design to identify potential family, employment, and individual resource-based antecedents of maternal work-family enrichment across infancy (i.e., 6 months), toddlerhood (i.e., 15 months), early childhood (i.e., 36 months), and middle childhood (i.e., 84 and 120 months). Important personal, familial, and employment-related factors were controlled because of their potential associations with work-family enrichment: work-family conflict, pre-birth employment, maternal age, maternal ethnicity, maternal depressive symptoms, child sex, and child-care quality (Cinamon & Rich, 2010; Hill, 2005). Work-family conflict is a related but distinct construct from enrichment, and thus, needs to be controlled to identify unique antecedents of work-family enrichment (Grzywacz & Bass, 2003). Mothers' negative affective states may take a toll on their sense of enrichment (Hammer, Cullen, Neal, Sinclair, & Shafiro, 2005) and thus depressive symptomatology is controlled in the study. In addition, child-care quality is implicated in the literature on maternal employment and is controlled because higher quality of child care may provide support for mothers and potentially facilitate the appraisals of enrichment (Wayne, Randel, & Stevens, 2006). In the following sections, potential resources within family, employment, and individual domains for work-family enrichment are elaborated.

Family Domain

Previous research suggests the potential importance of three family antecedents of work-family enrichment: having adequate financial resources, intimacy with partners, and sufficient social support. These potential antecedents may provide potential capital and affective gains that enhance mothers' functioning across family and employment domains (Voydanoff, 2008). Adequate family income may enable mothers to acquire services for their families, and thus may enhance satisfying skills and emotions that may carry over into the workplace (Wayne et al., 2007). Mothers with sufficient financial resources also may seek employment voluntarily and thus may be more likely to perceive individual enhancement when combining family and employment lives (van Steenberg, Ellemers, & Mooijaart, 2007). Intimacy with partners may enhance mothers' satisfaction with parenting and self-efficacy and is associated with better family functioning (Mulsow, Caldera, Pursley, Reifman, & Huston, 2002), which may serve as a catalyst for work-family enrichment. In addition, greater intimacy with partners may facilitate mothers' work-family interpersonal capitalization (i.e., sharing work events with partner at home) and promote mothers' sense of work-family enrichment across family and employment domains (Ilies, Keeney, & Scott, 2011). General social support may include that from extended families, friends, communities, and coworkers and may increase feelings of being cared for, loved, valued, and esteemed, which ultimately may enhance individual performance in the family and workplace (Siedlecki, Salthouse, Oishi, & Jeswani, 2014; Thoits, 2011).

Hypothesis 1: Higher levels of family income-to-needs ratio, intimacy with a partner, and social support are associated positively with higher maternal work-family enrichment across time after controlling for work-family conflict and other confounding factors.

Employment Domain

Previous research suggests the potential importance of five employment antecedents of maternal work-family enrichment: work hours, professional job status, job rewards, perceived benefits of employment for children, and work commitment. Although cross-sectional studies have not found a significant relationship between work hour intensity and enrichment (Hill, 2005), narrative treatises have suggested that reduced work hours could function as a resource to meet role expectations in both family and employment domains (Sliter & Elacqua, 2013; Voydanoff, 2005). Managerial and professional jobs typically require longer work hours and higher levels of work commitment than those required in production, clerical, or service jobs (Jacobs & Gerson, 2004), but mothers with professional jobs tend to prefer employment because of the sense of achievement and personal fulfillment (Jacob, 2008). Job rewards, including appreciation, respect, autonomy, sense of competence, may be transmitted into family lives via the psychological spillover of emotions and energy expansions (Voydanoff, 2004). Mothers who perceive higher benefits of employment for children may hold positive attitude towards combining multiple life responsibilities and may be more likely to allocate resources across family and employment lives. Work commitment represents mothers' attachment, identification, or loyalty to the employment (Mulaney, McNall, & Morrissey, 2011), which may serve as a support resource that promotes mothers' work-family enrichment through enhancing and emphasizing mothers' sense of job benefits and rewards (i.e., energy resource) and professional status prestige (i.e., condition resource).

Hypothesis 2: Fewer work hours, professional job status (versus nonprofessional job status), and higher levels of job rewards, benefits of employment, and work commitment, are associated with higher maternal work-family enrichment across time after controlling for work-family conflict and other confounding factors.

Individual Domain

Individual factors have received less attention in relation to work-family enrichment than have family and employment factors. Previous research, however, suggests the potential importance of three individual antecedents of maternal work-family enrichment: maternal education, extroversion, and physical health. These factors are guided by Voydanoff's model of the work-family interface to address three types of individual characteristics: mental characteristics (i.e., education), dispositional characteristics (i.e., extroversion), and physical characteristics (i.e., health). Mothers with higher education may possess a greater variety of psychological and social assets and effective strategies to address daily hassles (Currie & Moretti, 2003), which holds greater potential for enrichment across family and employment domains. The association between personality and enrichment has been discussed in terms of spillover processes, such as transfers of positive mood, skills, behaviors, and enhancement of self-esteem (Wayne, Musisca, & Fleeson, 2004). Mothers with higher levels of extroversion are more likely to experience and recognize positive affect at work or in families and thus transfer to and benefit family or work lives (Grzywacz & Marks, 2000). In addition, these mothers are more likely to be motivated to enhance their performance in families or workplace through active engagement or learning (Naquin & Holton, 2002), which will contribute to mothers' sense of enrichment across domains. As such, higher extroversion could facilitate gains within each domain and may increase the positive

transfers across family and employment domains. In addition, good maternal health is a prerequisite for active engagement in family and employment lives and has been associated with enrichment in previous studies (e.g., Carlson et al., 2011).

Hypothesis 3: Higher maternal educational attainment, extroversion, and better maternal health are associated positively with higher maternal work-family enrichment across time after controlling for work-family conflict and other confounding factors.

Distinguishing Between Work-Family Enrichment and Conflict

From a differential salience approach of the work-family interface, the conceptual distinction between work-family enrichment and conflict also suggests different antecedents of these two constructs (Voydanoff, 2004). The prior three hypotheses test this proposition by examining the potential resources within family, employment, and individual domains for work-family enrichment with work-family conflict controlled. Furthermore, it is important to see if these resources are more likely to relate to work-family enrichment but less likely to predict work-family conflict. Theoretically, the competing pressures or demands derived from contexts or individuals rather than resources contribute to the incompatibility between family and employment (Greenhaus & Beutell, 1985). In support of this idea, research has shown that resources (e.g., learning opportunities at workplace) were related strongly to work-family enrichment but unrelated to work-family conflict (Grzywacz & Marks, 2000; Voydanoff, 2004). The present study extended the literature by additionally examining whether or not potential family, employment, and individual resources are related to work-family enrichment when controlling for work-family conflict and other confounding factors.

Method

Participants and Data Collection

The NICHD-SECCYD is a longitudinal study designed originally to examine the relationship between childcare and children's development (NICHD Early Child Care Research Network, 1997). Families were recruited through hospital visits to mothers shortly after the birth of a child in 1991 in 10 U. S. locations. Of the 1,525 families deemed eligible for study inclusion, 1,364 completed a home interview when the infant was 1 month old and became study participants. The current study was based on data collected when children were 1 month of age through fifth grade when maternal work-family enrichment and conflict were assessed during these child-rearing years (Kaufman & Uhlenberg, 2000). Given this study aimed to address work-family enrichment across time, we limited the sample to mothers who had work-family enrichment data at least twice across the five time points (i.e., enrichment was assessed five times from 6 months to Grade 5). This resulted in a sample of 1019 mothers. The number of mothers who had complete data on work hours across all five waves, four waves, and three waves were 374, 568, and 808, respectively.

Mothers were interviewed at home when infants were 1 month old. Data for the current study came from semi-structured interviews with mothers when the children were 1, 6, 15, and 36 months old and during 3rd and 5th grades. The resulting sample included 19.4% mothers of color. Mothers had an average of 14.52 years of education. Average family

income was 2.96 times the poverty threshold. As compared to the U.S. population, the SECCYD sample has higher proportions of European American families, higher educational attainment, higher household income, and higher receipt of public assistance (NICHD ECCRN, 2001). Some potential resources (e.g., social support) may change across time and thus were assessed at each time point; other enduring resources (e.g., extroversion) may be stable over time and thus were assessed during the child 1 month interview.

Measures

Maternal work-family enrichment and conflict—Work-family enrichment and conflict were assessed at 6, 15, and 36 months and when children were in 3rd and 5th grades using the Combining Work and Family Questionnaire (Marshall & Barnett, 1993). Eight items comprised the work-family enrichment subscale (e.g., “Having both work and family responsibilities challenges you to be the best you can be” and “the fact that you're working makes you a better parent”). Thirteen items comprised the work-family conflict subscale (e.g., “Working leaves you with too little energy to be the kind of parent you want to be” and “Thinking about your children interferes with your performance at work”). Response options for the items and resulting subscales ranged from 1 (*not true at all*) to 4 (*very true*). Items within each wave for each subscale were averaged (α s .88 to .91). Studies have shown that enrichment and conflict were moderately associated with each other and have provided evidence of construct validity (Marshall & Barnett, 1993; Mulvaney, McNall, & Morrissey, 2011).

Family domain variables—Family income-to-needs ratio, partner intimacy, and social support were assessed at each time point and thus were included in analyses as time-varying predictors. *Family income-to-needs ratio* was computed by dividing total family income by the poverty level for the appropriate family size (U.S. Bureau of the Census, 1999). Mothers completed the six-item Emotional Intimacy subscale of the Personal Assessment of Intimacy in Relationships (Schaefer & Olson, 1981). Items on this scale were answered on a 5-point Likert scale and higher scores indicate a more positive assessment of *partner intimacy*. A sample item is “My spouse/partner listens to me when I need someone to talk to.” Cronbach alphas ranged from .80 to .83. Mothers also completed the 11-item Relationships with Other People Scale (Marshall & Barnett, 1993), which measured their perceptions of *social support* availability over the past month at each home visit. Mothers responded to statements such as “The people who are important to me encourage me when I feel discouraged or down.” Responses were on a 6-point Likert-type scale and a high score reflected the mother's perception that support was often available to her. Cronbach alphas were above .90 at each measurement point.

Employment domain variables—Mothers' self-reported number of *hours* worked for all jobs was used to determine weekly work hours at each wave. *Professional status* was identified by asking mothers to describe their position titles and their primary duties at each wave. These descriptions were classified into 13 categories based on the 1990 Census. Two categories, (a) Executive, Administrative, or Managerial and (b) Professional, were considered professional (0 = nonprofessional; 1 = professional). *Job rewards* were reported by mothers at 15 months and Grade 3 using the Rewards subscale of the Job-Role Quality

Scale (Marshall & Barnett, 1993). A sample item is “How much of a rewarding part of your job is doing work you consider important?” The response scale ranged from 1 (*not at all rewarding*) to 4 (*very rewarding*). Cronbach's alphas was .88 and .90 for the 15- and 24-month assessments, respectively. *Benefits of employment* was measured using the 5-item Benefits subscale of the Costs and Benefits of Employment scale (e.g., “Children whose mothers work learn valuable lessons about other people they can rely on”; Greenberger, Goldberg, Crawford, & Granger, 1988; $\alpha = .80$), and *work commitment* was measured using the 11-item Work Commitment Scale (e.g., “How I'm doing in my job is central to my self-esteem”; Greenberger & Goldberg, 1989; $\alpha = .83$). Each was measured when the baby was 1 month old and was grand-mean centered.

Individual domain variables—*Maternal education* was recorded at the 1-month interview. *Maternal extroversion* was assessed using the NEO Personality Inventory (Costa & McCrae, 1985; $\alpha_s = .85$) via maternal interview at baby 6 months. Maternal education and extroversion were treated as time-invariant predictors and were grand-mean centered. Mothers reported the overall status of their own *health* at each time point (i.e., a time-varying predictor), using a single item rated on a 4-point scale (poor, fair, good, or excellent).

Control and selection variables—Data on *pre-birth employment* (0 = not employed; 1 = employed), maternal *age* in years (grand-mean centered), *ethnicity* (0 = non-Hispanic White; 1 = others), and child sex (1=male, 0=female) were collected during the 1-month interview. Maternal *depressive symptoms* was measured at 1 month using the CES-D (Radloff, 1977; $\alpha_s = .88$ to .91). The quality of nonmaternal child care received by the child was obtained using the qualitative ratings of child care quality made by observers at 6 months if a child was receiving at least 10 hours of non-maternal care. The ratings were made during extensive observations in the children's child care arrangements, described in detail in NICHD ECCRN (2003).

Analytic Procedures

Data were analyzed using multilevel modeling (SAS, v. 9.3). Two modern state-of-the-art missing data handling techniques, multiple imputation and restricted maximum likelihood (REML), were used to handle missing data for time-invariant and time-varying variables, respectively (Schafer & Graham, 2002). Multiple imputation was used to obtain 20 datasets of a sample size of 1019 mothers with full information on all time-invariant variables. Specifically, a multiple imputation procedure replaces each missing value with plausible values based on existing information in the dataset with some adjustments for prediction errors. These multiply imputed data sets are then analyzed by using standard procedures for complete data and pooling of the parameter estimates from 20 imputed datasets, which results in unbiased point estimates and valid estimated standard error and thus valid statistical inferences (Little & Rubin, 2002). REML is related to the missing data estimation for more general applications using the expectation-maximization (EM) algorithm (Raudenbush & Bryk, 2002) and generates accurate variance estimation (Peugh, 2010). Missing data for time-varying variables were handled by REML such that all of the available data across time for a given case was used to create the statistical regression estimates. In

this way, missing data were taken into account by giving more weight to mothers with complete data than those mothers with missing information on the time-varying variables (Dempster, Laird, & Rubin, 1977).

Time was scaled such that a 1-unit increase in time was equivalent to 1 year (i.e., 12 months). Time was centered at 6 months (i.e., the initial status of maternal work-family enrichment). Lagged models were used to strengthen the time-ordered inferences between antecedents and maternal work-family enrichment. In this way, instead of concurrent relationships, associations between antecedents at a given time point and maternal work-family enrichment one year later were estimated (Garst, Frese, & Molenaar, 2000).

The following formula illustrates the analytic model with antecedents and control variables included. The combined formula including the time-invariant (i.e., level 2) and time-varying (i.e., level 1) predictors is as follows:

$$\begin{aligned} \text{Enrichment}_{it} = & b_{00} + b_{10}(\text{Time})_{it} + b_{20}(\text{Antecedents})_{it-1} \\ & + b_{30}(\text{Antecedents})_{it-1} \\ & \times (\text{Time})_{it} + b_{01}(\text{Pre-birth employment})_t \\ & + b_{02}(\text{Maternal age})_t \\ & + b_{03}(\text{Maternal ethnicity})_t \\ & + b_{04}(\text{Child sex})_t \\ & + b_{05}(\text{Child care quality})_t \\ & + b_{06}(\text{Maternal depression})_t \\ & + \mu_{0t}(\text{Random coefficient for intercept}) \\ & + \mu_{1t}(\text{Random coefficient for slope}) + r_{it}, \end{aligned}$$

where enrichment_{it} represents the reported work-family enrichment for respondent i at a given time point t , b_{00} represents the estimated sample average for work-family enrichment when the child was 6 months old. b_{10} represents the estimated average linear change of work-family enrichment per year. b_{20} indicates the estimated average associations between antecedents and work-family enrichment. b_{30} represents the estimated interactions between antecedents and time (a central focus of this study). The extent to which mothers varied from the sample average of work-family enrichment is represented by μ_{0t} . The extent to which mothers varied from the sample slope of work-family enrichment is represented by μ_{1t} . The error term, r_{it} , represents a unique effect associated with person i .

Results

Descriptive statistics for time-varying and time-invariant variables are shown in Table 1 (pre-imputation). Before identifying *antecedents* of maternal work-family enrichment across time, an unconditional growth curve for maternal work-family enrichment from child 6 months through 5th grade was modeled. The intercept was set at the baby 6 months and the average work-family enrichment score was 2.74 ($SE = .02$, $p < .001$, variable scaled 1 through 4). There was no linear trend of maternal work-family enrichment over time, on average (linear slope = .005, $SE = .003$, $p > .05$). A decomposition of the total variance in

maternal work-family enrichment scores indicated that 52.80% of the variance was between mothers ($\tau_{00} = 0.28$, $Z = 17.77$, $p < .001$) and 47.20% of the variance was within mothers ($\sigma^2 = 0.25$, $Z = 37.24$, $p < .001$). As such, the unconditional growth model indicated that there was sufficient variability in enrichment both between and within mothers for further analyses.

Family Antecedents

Three time-varying family resources were examined as antecedents of work-family enrichment across time: income-to-needs ratio, partner intimacy, and social support. Controlling for work-family conflict and other confounding variables, income-to-needs ratio and social support were associated positively with work-family enrichment; partner intimacy was not associated with work-family enrichment (See Table 2, Columns 2 and 3). Given that these predictors were time varying and that these data were lagged, these findings indicate that increases in economic well-being and social support were related to subsequent increases in perceived work-family enrichment. The statistically significant antecedents and the statistically significant interactions with child age (i.e., time) accounted for 2.69% of the variance in work-family enrichment scores.

In addition, income-to-needs ratio interacted with child age in the prediction of work-family enrichment. Post-hoc analyses indicated that the positive association between income-to-needs ratio and enrichment was stronger in toddlerhood (i.e., 15 months) or early childhood (i.e., 36 months) than in middle childhood (i.e., 120 months; $b_{diff} = .03$, $t = 2.01$, $p < .05$ for 15 months versus 120 months; $b_{diff} = .03$, $t = 2.14$, $p < .05$ for 36 months versus 120 months). As such, the hypothesis that greater family income-to-needs ratio and social support serve as resources associated with higher work-family enrichment across child developmental stages was supported. Partner intimacy was not a resource that promoted work-family enrichment, and therefore, this part of hypothesis 1 was not supported.

Employment Antecedents

Five employment resources were examined as antecedents of work-family enrichment from infancy through middle childhood: reduced work hours, professional status, greater job rewards, perceived benefits of employment for children, and work commitment. Controlling for work-family conflict and other confounding variables, job rewards, benefits of employment for children, and work commitment were each associated positively with work-family enrichment; work hours and professional status were not associated with work-family enrichment (See Table 2, Columns 5 and 6). The statistically significant antecedents and the statistically significant interactions with child age (i.e., time) accounted for 22.98% of the variance in work-family enrichment scores.

In addition, benefits of employment for children interacted with child age in the prediction of work-family enrichment. Post-hoc analyses indicated that the positive association between perceived benefits of employment for children and enrichment was stronger during infancy (i.e., 6 months) and early toddlerhood (i.e., 15 months) than during middle childhood (i.e., 120 months; $b_{diff} = .03$, $t = 3.77$, $p < .001$ for 6 months versus 120 months; $b_{diff} = .05$, $t = 5.00$, $p < .001$ for 15 months versus 120 months). As such, the hypothesis that

greater job rewards, benefits of employment for children, and work commitment serve as resources associated with higher work-family enrichment across child developmental stages was supported. Reduced work hours and professional status were not resources that promoted work-family enrichment, and thus, this part of hypothesis 2 was not supported.

Individual Antecedents

Three individual resources were examined as antecedents of work-family enrichment across time: higher educational attainment, extroversion, and better physical health. Controlling for work-family conflict and other confounding variables, higher education and extroversion were associated positively with work-family enrichment; maternal health was not uniquely associated with work-family enrichment (See Table 2, Columns 7 and 8). The statistically significant antecedents and the statistically significant interactions with child age (i.e., time) accounted for 2.64% of the variance in work-family enrichment scores. As such, the hypothesis that higher education and extroversion serve as resources associated with higher work-family enrichment across child developmental stages was supported. Better health was not a resource that promoted work-family enrichment, and thus, this part of hypothesis 3 was not supported.

Potential Resources and Work-Family Conflict

Family, employment, and individual characteristics also were examined in relation to work-family conflict. Controlling for work-family enrichment and other confounding variables, only partner intimacy was associated with lower work-family conflict across time (See Table 3). In addition, social support, work hours, professional status, and education interacted with child age in prediction of maternal work-family conflict (results of post-hoc analyses available from first author).

Discussion

The present study related to perceptions of the literature regarding the work-family interface by examining whether potential family, employment, and individual resources contribute to work-family enrichment from infancy through middle childhood. Examining antecedents of work-family enrichment only during one particular child/family developmental period may not capture the dynamic nature of the enrichment processes that evolve as employment and family roles are combined (Sweet & Moen, 2006). By addressing patterns across time, these findings provide important information regarding whether resources enhance work-family enrichment across early child developmental stages. This focus on potential rewards when combining personal and professional lives also extended the previous literature by going beyond the predominant emphasis on work-family conflict (Frone, 2003). In addition, the present study controlled for pre-existing employment, familial, and individual characteristics that may shape work-family enrichment, and utilized a lagged research design in order to strengthen inferences regarding the time-ordering of antecedents and enrichment.

Overall, there was no linear trend of change in work-family enrichment over time. However, there is significant variability around the linear trend of change in work-family enrichment, indicating that mothers may vary in utilizing resources in reducing various family and

employment-related demands and facilitating performance from infancy through middle childhood (Perry-Jenkins & MacDermid Wadsworth, 2013). Thus, it is important to address the antecedents of maternal work-family enrichment across developmental contexts.

Guided by Voydanoff's model of the work-family interface (2008), potential contextual (i.e., family and employment) and individual resources were hypothesized to be antecedents of work-family enrichment across child developmental stages. These resources may promote mothers' active engagement in family and employment lives and appreciation of opportunities by combining multiple roles, resulting in individual fulfillment (Barnett & Hyde, 2001).

In the family domain, higher family income-to-needs ratio and social support served as important economic and emotional resources that may relieve extensive family responsibilities and thus could produce positive experiences to promote functioning across employment and family domains (Jacob, 2008; Wayne et al., 2007). Higher income and general support also may enhance family functioning by enhancing mothers' perceived efficacy in the provider role. In contrast to previous research (Grzywacz & Marks, 2000), however, emotional intimacy was not associated with work-family enrichment in this study. This may be due to the fact that general support including encouragement, information, and advice from significant others, may represent broader psychological resource and encompass mothers' emotional closeness from partners and thus may be more effective in promoting work-family enrichment. Indeed, when removing social support, partner intimacy was associated with work-family enrichment across time (results available from first author).

In the employment domain, job rewards, benefits of employment for children, and work commitment were associated with increased work-family enrichment across time. Job rewards, including job design characteristics (e.g., autonomy and learning opportunities) and psychological rewards (e.g., respect and competence), may contribute to time management, problem-solving skills, and positive emotion and energy creation, which probably lead to enhanced performance across family and employment lives (Grzywacz & Butler, 2005; Voydanoff, 2004). Higher levels of positive attitude towards employment set a conducive tone for ensuing balance of family and employment roles and may result in higher work-family enrichment through psychological expansion such as positive emotion and heightened self-esteem (Greenhaus & Powell, 2006). With regard to work commitment, the present study extends previous studies by examining maternal commitment to employment as an antecedent rather than an outcome of work-family enrichment. Mothers who have established and maintained solid identity in the employment roles are more likely to enact their employment roles and thus view family and employment domains as potentially harmoniously integrated and mutually enhancing (Mulvaney et al., 2011; Rothbard & Edwards, 2003). As such, work commitment and work-family enrichment may be mutually reinforcing over time and examinations of the mechanisms that underlie their associations are warranted.

Contrary to our hypotheses, reduced work hours and professional job status were not uniquely associated with work-family enrichment scores across time. The nonsignificant association of work hour intensity with work-family enrichment across time is consistent

with findings from previous cross-sectional findings (Hill, 2005). It is possible that benefits of reduced work hours may manifest in enhanced domain-specific employment or family functioning (e.g., parenting quality) rather than general appraisals of enrichment (Buehler, O'Brien, Swartout, & Zhou, 2014). In addition, professional job status may not have served as a resource because the professional positions may provide mothers with extensive demands associated with higher commitment as well as more flexibility and sense of personal fulfillment (Jacob, 2008; Jacobs & Gerson, 2004). This complex aggregation of demanding and useful aspects of working in jobs that characterize professional occupations may include elements that offset one another in terms of possible effects on perceived work-family enrichment.

In the individual domain, mothers with higher education are more likely hold positive attitudes toward employment and parenting (NICHD ECCRN, 1997), and thus are more likely to generate various types of gains from one domain to the other life domain and to improve individual functioning (Wayne et al., 2004). Mothers having higher extroversion also have been more active and assertive (McNall, Scott, & Nicklin, 2015). These mothers may cooperate with others better in handling the extensive childcare responsibilities because they are more likely to experience positive affect, and more readily attend to positive events (Rusting & Larsen, 1998). Maternal health, however, was not a significant resource in relation to work-family enrichment. Studies consistently showed that work-family enrichment lead to better physical and mental health because resources associated with enrichment are essential for coping with stress that negatively influence individual well-being (McNall, Nicklin, & Masuda, 2010). As such, maternal health may be an outcome of work-family enrichment rather than an antecedent.

Several of the hypothesized family, employment, and individual characteristics were associated with work-family enrichment across infancy, toddlerhood, early and middle childhood (7 out of 11). In addition, income-to-needs ratio and benefits of employment interacted with child age in prediction of work-family enrichment such that the positive association between enrichment and income-to-needs ratio or benefits of employment was stronger in infancy or toddlerhood than in middle childhood. During the early childrearing years, mothers experience a complicated process of expanding, shifting, and integrating their constellation of identities by negotiating a series of issues about parenting roles accompanying the childbirth (Katz-Wise, Priess, & Hyde, 2010) as well as increased employment responsibilities associated with career-building (Moen & Roehling, 2005). As such, income-to-needs ratio and benefits of employment may be especially useful in promoting work-family enrichment during early childrearing years than middle childhood.

The results from this study provide important theoretical implications. This study points to the importance of distinguishing between work-family enrichment and conflict. First, work-family enrichment and conflict were weakly correlated with each other across child developmental stages (ranged from $-.13$ to $-.25$). Of particular importance for this study, only one potential resource (i.e., partner intimacy) out of eleven was associated with work-family conflict after accounting for the variance of work-family enrichment and other confounding variables. Although there are statistical concerns associated with interpreting null findings, the pattern of results supported the proposition that environmental and

individual resources are more likely to be associated with work-family enrichment than conflict. As such, the present study not only adds evidence to the fact that work-family enrichment and work-family conflict are conceptually distinct constructs, but also stresses the importance of considering enrichment and conflict simultaneously to achieve a more complete picture of work-family interface.

The results from this study also provide important implications for policy and practices. First, contemporary structures and the culture of human resource policies and practices in the labor market mainly were institutionalized in the 1950s that focused on employees' work-family interface in a more gender specialized time period (Kelly & Moen, 2007). With limited empirical insights from previous cross-sectional or short-term longitudinal studies, the results of this study suggest that a wide array of valid resources could be integrated into programs in promoting mothers' work-family enrichment. Second, previous policies and practices based on occupational health research has mostly employed a deficit model that has focused mainly on reducing job demands with little attention to resources that may facilitate employed mothers' functioning (Moen, Kelly, & Huang, 2008). In the present study, the significant associations between family, employment, and individual resources and mothers' appraisal of enrichment provide evidence for necessary efforts in thinking about enhancing the availability and amount of resources for work-family enrichment. For instance, provisions of employer and colleague support for mothers with young children such as discussing potential life and job difficulties, compliments, and encouragement could be an effective strategy to promote mothers' work-family enrichment (Voydanoff, 2008). Economic support also could promote work-family enrichment for mothers with young children by facilitating their abilities to balance family and employment lives (e.g., hiring a babysitter).

Within the employment domain, provision of extra support or services such as Employee Assistance Programs (EAP), career counseling, and an on-site child care center, could assist mothers with personal and work concerns (Casper & Buffardi, 2004). Integration of these extra services as a bonus package can enhance mothers' overall job rewards and benefits beyond the standard job benefits such as health insurance and vacation (Herlihy & Attridge, 2004). EAP also is effective in enhancing work commitment through a "prosocial sensemaking" process in which "mothers may interpret personal and company actions and identities as caring," which can lead to heightened levels of work-family enrichment over time (Grant, Dutton, & Rosso, 2008, p. 898). These interactional and cognitive supports may be particularly helpful given rewards, benefits, and work commitment accounted for almost a quarter of the variability in mothers' appraisals of work-family enrichment.

In the individual domain, mothers with lower education and extroversion may be identified through pre-career screening and need to be aware of the vulnerabilities in generating enrichment across employment and family lives (Russell, 2006). Lower education and lower extroversion may be associated with poorer problem solving skills, teamwork, and/or social skills that lead to lower levels of work-family enrichment. As such, trainings could be provided for mothers with lower education and extroversion to improve the critical but alterable skills and attitudes for enhancing work-family enrichment. Future studies are warranted to identify more proximal factors that helps explain how and why these particular

family, employment, and individual antecedents lead to work-family enrichment. The understanding of underlying mechanisms holds great promise in guiding prevention/intervention efforts in promoting work-family enrichment.

Further, resources within a given domain could be considered simultaneously in relation to enrichment instead of distinct, separate resources. As such, resources within a given domain, such as job rewards and work commitment in the employment domain, and resources across domains, such as social support and maternal extroversion, may work in concert to promote enrichment for mothers with a young child. Thus, a holistic perspective may be appropriate in policy making and practice to promote enrichment (Kelly & Moen, 2007). Specifically, work-family friendly policies in enhancing family and employment resources, and trainings and programs in enhancing social skills need to be integrated and implemented simultaneously to promote work-family enrichment.

Although this study makes several important contributions to work-family literature, there are limitations that should be considered when interpreting the findings. This sample had higher levels of female educational attainment than that found on average in the U.S. populations (68.7 % of mothers had completed high school education in this sample as compared to 78.3% in 1991 and 88.0% in 2011; U.S. Census, 2011). This sample also had lower levels of family income than that found in the U.S. population (an average of \$12, 266 for maternal income at child 1 month in this sample as compared to an average of \$17, 474 in 1991 and \$ 21, 283 in 2013 in the U.S. population; U.S. Census, 2014). This potential sample bias needs to be taken into consideration when considering these results given both maternal educational attainment and family income were found to be salient antecedents of maternal appraisal of work-family enrichment at certain stages of child development. As such, caution is needed when applying these findings to employed mothers in the U.S. Future studies are needed to examine the antecedents of work-family enrichment in samples of mothers with low education and income, who may possess limited resources but demonstrate more resilience in relation to work-family enrichment (Lombardi & Coley, 2013). Another limitation of the study was the sample attrition over the ten years that may shape generalizations that can be made from these findings.

In addition, work-to-family and family-to-work enrichment are distinct constructs and may have different sets of antecedents within family, employment, and individual domains (Aryee et al., 2005). Further, the present study was limited by its sole focus on mothers. Fathers may differ from mothers in priorities of family and employment responsibilities, resulting in different patterns of work-family experiences (Mennino, Rubin, & Brayfield, 2005). Future studies could address these limitations by differentiating the bidirectional nature of enrichment and examining the actor and partner effects of resources for both maternal and paternal work-family enrichment.

In conclusion, the present study suggests that important family, employment, and individual resources are associated with maternal work-family enrichment across early childrearing years. The different salient configurations of family, employment, and individual antecedents for work-family enrichment and conflict across time informed researchers about the importance of distinguishing between maternal work-family enrichment and conflict. The

identified resources for promoting work-family enrichment across time informed practitioners about integrating resources across family, employment, and individual domains into prevention and intervention programs to enhance mothers' work-family enrichment.

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References

- Aryee S, Srinivas ES, Tan H. Rhythms of life: Antecedents and outcomes of work-family balance in employed parents. *Journal of Applied Psychology*. 2005; 90:132–146. doi: 10.1037/0021-9010.90.1.132. [PubMed: 15641894]
- Barnett RC, Hyde JS. Women, men, work, and family. *American Psychologist*. 2001; 56:781–796. doi: 10.1037/0003-066X.56.10.781. [PubMed: 11675985]
- Buehler C, O'Brien M, Swartout KM, Zhou N. Maternal employment and parenting through middle childhood: Contextualizing factors. *Journal of Marriage and Family*. 2014; 76:1025–1046. doi: 10.1111/jomf.12130. [PubMed: 25530631]
- Butler AB, Grzywacz JG, Bass BL, Linney KD. Extending the demands-control model: A daily diary study of job characteristics, work-family conflict and work-family enrichment. *Journal of Occupational and Organizational Psychology*. 2005; 78:155–169. doi:10.1348/096317905X40097.
- Carlson DS, Grzywacz JG, Ferguson M, Hunter EM, Clinch C, Arcury TA. Health and turnover of working mothers after childbirth via the work-family interface: An analysis across time. *Journal of Applied Psychology*. 2011; 96:1045–1054. doi:10.1037/a0023964. [PubMed: 21604833]
- Casper WJ, Buffardi LC. Work-life benefits and job pursuit intentions: The role of anticipated organizational support. *Journal of Vocational Behavior*. 2004; 65:391–410. doi:10.1016/j.jvb.2003.09.003.
- Cinamon RG, Rich Y. Work family relations: Antecedents and outcomes. *Journal of Career Assessment*. 2010; 18:59–70. doi:10.1177/1069072709340661.
- Costa, P.; McCrae, R. The NEO personality inventory manual. Psychological Assessment Resources, Inc.; Odessa, FL: 1985.
- Currie J, Moretti E. Mother's education and the intergenerational transmission of human capital: Evidence from college openings. *The Quarterly Journal of Economics*. 2003; 118:1495–1532. doi: 10.1162/003355303322552856.
- Dempster AP, Laird NM, Rubin DB. Maximum likelihood from incomplete data via the EM algorithm. *Journal of the Royal Statistical Society. Series B (Methodological)*. 1977:1–38.
- Eby LT, Casper WJ, Lockwood A, Bordeaux C, Brinley A. Work and family research in IO/OB: Content analysis and review of the literature (1980–2002). *Journal of Vocational Behavior*. 2005; 66:124–197. doi: 10.1016/j.jvb.2003.11.003.
- Frone, MR. Work-family balance.. In: Quick, JC.; Tetrick, LE., editors. *Handbook of occupational health psychology*. APA; Washington, DC: 2003. p. 143–162.
- Garst H, Frese M, Molenaar PM. The temporal factor of change in stressor-strain relationships: A growth curve model on a longitudinal study in East Germany. *Journal of Applied Psychology*. 2000; 85:417–438. doi:10.1037/0021-9010.85.3.417. [PubMed: 10900816]
- Grant AM, Dutton JE, Rosso BD. Giving commitment: Employee support programs and the prosocial sensemaking process. *Academy of Management Journal*. 2008; 51:898–918. doi:10.5465/AMJ.2008.34789652.
- Greenberger E, Goldberg WA, Crawford TJ, Granger J. Beliefs about the consequences of maternal employment for children. *Psychology of Women Quarterly*. 1988; 12:35–59. doi:10.1111/j.1471-6402.1988.tb00926.x.
- Greenberger E, Goldberg WA. Work, parenting, and the socialization of children. *Developmental Psychology*. 1989; 25:22–35. doi:10.1037/0012-1649.25.1.22.

- Greenhaus JH, Beutell NJ. Sources and conflict between work and family roles. *The Academy of Management Review*. 1985; 10:76–88. doi:10.2307/258214.
- Greenhaus JH, Powell GN. When work and family are allies: A theory of work-family enrichment. *The Academy of Management Review*. 2006; 31:72–92. doi: 10.2307/20159186.
- Grzywacz JG. Toward a theory of work–family facilitation.. Paper presented at the 32nd Annual Theory Construction and Research Methodology Workshop of the Persons; Houston, TX.. National Council on Family Relations; Nov. 2002
- Grzywacz JG, Almeida DM, McDonald DA. Work-family spillover and daily reports of work and family stress in the adult labor force. *Family Relations*. 2002; 51:28–36. doi:10.1111/j.1741-3729.2002.00028.x.
- Grzywacz JG, Bass BL. Work, family, and mental health: Testing different models of work-family fit. *Journal of Marriage and Family*. 2003; 65:248–262. doi:10.1111/j.1741-3737.2003.00248.x.
- Grzywacz JG, Butler AB. The impact of job characteristics on work-to-family facilitation: Testing a theory and distinguishing a construct. *Journal of Occupational Health Psychology*. 2005; 10:97–109. doi:10.1037/1076-8998.10.2.97. [PubMed: 15826221]
- Grzywacz JG, Marks NF. Reconceptualizing the work–family interface: An ecological perspective on the correlates of positive and negative spillover between work and family. *Journal of Occupational Health Psychology*. 2000; 5:111–126. doi:10.1037/1076-8998.5.1.111. [PubMed: 10658890]
- Hammer LB, Cullen JC, Neal MB, Sinclair RR, Shafiro MV. The longitudinal effects of work-family conflict and positive spillover on depressive symptoms among dual-earner couples. *Journal of Occupational Health Psychology*. 2005; 10:138–154. doi:10.1037/1076-8998.10.2.138. [PubMed: 15826224]
- Herlihy PA, Attridge M. Research on the integration of employee assistance, work-life and wellness services: Past, present and future. *Journal of Workplace Behavioral Health*. 2004; 20:67–93. doi: 10.1300/J490v20n01_04.
- Hill E. Work-family enrichment and conflict, working fathers and mothers, work-family stressors and support. *Journal of Family Issues*. 2005; 26:793–819. doi:10.1177/0192513X05277542.
- Hobfoll SE. The influence of culture, community, and the nested-self in the stress process: Advancing Conservation of Resources theory. *Applied Psychology: An International Review*. 2001; 50:337–370. doi:10.1111/1464-0597.00062.
- Ilies R, Keeney J, Scott BA. Work–family interpersonal capitalization: Sharing positive work events at home. *Organizational Behavior and Human Decision Processes*. 2011; 114:115–126. doi:10.1016/j.obhdp.2010.10.008.
- Jacob JI. Work, family, and individual factors associated with mothers attaining their preferred work situations. *Family and Consumer Sciences Research Journal*. 2008; 36:208–228. doi: 10.1177/1077727X07312820.
- Jacobs, JA.; Gerson, K. Understanding changes in American working time: A synthesis.. In: Epstein, C.; Kalleberg, AL., editors. *Fighting for time: Shifting boundaries of work and social life*. Sage; New York, NY: 2004. p. 25-45.
- Katz-Wise SL, Priess HA, Hyde JS. Gender-role attitudes and behavior across the transition to parenthood. *Developmental Psychology*. 2010; 46:18–28. doi:10.1037/a0017820. [PubMed: 20053003]
- Kaufman G, Uhlenberg P. The influence of parenthood on the work effort of married men and women. *Social Forces*. 2000; 78:931–947. doi:10.2307/3005936.
- Kelly EL, Moen P. Rethinking the clockwork of work: Why schedule control may pay off at work and at home. *Advances in Developing Human Resources*. 2007; 9:487–506. doi: 10.1177/1523422307305489. [PubMed: 25598711]
- Little, RJ.; Rubin, DB. *Statistical analysis with missing data*. John Wiley & Sons; 2014.
- Lombardi CM, Coley RL. Low-income mothers' employment experiences: Prospective links with young children's development. *Family Relations: An Interdisciplinary Journal of Applied Family Studies*. 2013; 62:514–528. doi:10.1111/fare.12018.
- Marks SR. Multiple roles and role strain: Some notes on human energy, time, and commitment. *American Sociological Review*. 1977; 42(6):921–936.

- Marshall NL, Barnett RC. Work-family strains and enrichment among two-earner couples. *Journal of Community Psychology*. 1993; 21:64–78. doi:10.1002/1520-6629(199301)21:1<64::AID-JCOP2290210108>3.0.CO;2-P.
- McNall LA, Nicklin JM, Masuda AD. A meta-analytic review of the consequences associated with work–family enrichment. *Journal of Business and Psychology*. 2010; 25:381–396. doi:10.1007/s10869-009-9141-1.
- McNall LA, Scott LD, Nicklin JM. Do positive affectivity and boundary preferences matter for work–family enrichment? A study of human service workers. *Journal of Occupational Health Psychology*. 2015; 20:93–104. doi:10.1037/a0038165. [PubMed: 25347683]
- Mennino S, Rubin BA, Brayfield A. Home-to-job and Job-to-home spillover: The impact of company policies and workplace culture. *The Sociological Quarterly*. 2005; 46:107–135. doi:10.1111/j.1533-8525.2005.00006.x.
- Moen P, Kelly E, Huang Q. Work, family and life-course fit: Does control over work time matter? *Journal of Vocational Behavior*. 2008; 73:414–425. doi:10.1016/j.jvb.2008.08.002. [PubMed: 19430546]
- Moen, P.; Roehling, P. *The career mystique: Cracks in the American dream*. Rowman & Littlefield; Lanham, MD: 2005.
- Mulsow M, Caldera YM, Pursley M, Reifman A, Huston AC. Multilevel factors influencing maternal stress during the first three years. *Journal of Marriage and Family*. 2002; 64:944–956. doi:10.1111/j.1741-3737.2002.00944.x.
- Mulvaney MK, McNall LA, Morrissey RA. A longitudinal investigation of work-family strains and gains, work commitment, and subsequent employment status among partnered working mothers. *Journal of Family Issues*. 2011; 32:292–316. doi:10.1177/0192513X10379202.
- Naquin SS, Holton EF III. The effects of personality, affectivity, and work commitment on motivation to improve work through learning. *Human Resource Development Quarterly*. 2002; 13:357–376. doi: 10.1002/hrdq.1038.
- NICHD Early Child Care Research Network. Familial factors associated with the characteristics of nonmaternal care for infants. *Journal of Marriage and the Family*. 1997; 59:389–408. doi:10.2307/353478.
- NICHD Early Child Care Research Network. Nonmaternal care and family factors in early development: An overview of the NICHD Study of Early Child Care. *Journal of Applied Developmental Psychology*. 2001; 22:457–492. doi:10.1016/S0193-3973(01)00092-2.
- NICHD Early Child Care Research Network. Does quality of child care affect child outcomes at age 4 ½? *Developmental Psychology*. 2003; 39:451–469. [PubMed: 12760515]
- Orthner DK, Jones-Sanpei H, Williamson S. The resilience and strengths of low-income families. *Family Relations*. 2004; 53:159–167. doi: 10.1111/j.0022-2445.2004.00006.x.
- Perry-Jenkins, M.; MacDermid, S. Work and family through time and space: Revisiting old themes and charting new directions.. In: Peterson, GW.; Bush, KR., editors. *The Handbook of Marriage and the Family*. Springer Publishing Company; New York, NY: 2013. p. 549-572. doi: 10.1007/978-1-4614-3987-5_23
- Peugh JL. A practical guide to multilevel modeling. *Journal of School Psychology*. 2010; 48:85–112. doi:10.1016/j.jsp.2009.09.002. [PubMed: 20006989]
- Radloff LS. The CES-D Scale: A self-report depression scale for research in the general population. *Applied Psychological Measurement*. 1977; 1:385–401. doi:10.1177/014662167700100306.
- Raudenbush, SW.; Bryk, AS. *Hierarchical linear models: Applications and data analysis methods*. Sage; Thousand Oaks, US: 2002.
- Rothbard NP, Edwards JR. Investment in work and family roles: A test of identity and utilitarian motives. *Personnel Psychology*. 2003; 56:699–730. doi:10.1111/j.1744-6570.2003.tb00755.x.
- Russell, JA. Career counseling for women in management.. In: Walsh, W.; Osipow, SH., editors. *Career counseling for women*. Erlbaum; Hillsdale, NJ: 2006. p. 263-326.
- Rusting CL, Larsen RJ. Personality and cognitive processing of affective information. *Personality and Social Psychology Bulletin*. 1998; 24:200–213. doi:10.1177/0146167298242008.
- Schafer JL, Graham JW. Missing data: Our view of the state of the art. *Psychological Methods*. 2002; 7:147–177. doi:10.1037/1082-989X.7.2.147. [PubMed: 12090408]

- Siedlecki KL, Salthouse TA, Oishi S, Jeswani S. The relationship between social support and subjective well-being across age. *Social Indicators Research*. 2014; 117:561–576. doi:10.1007/s11205-013-0361-4. [PubMed: 25045200]
- Sliter, KA.; Elacqua, TC. Part-time employment for women: Implications for women and their children.. In: Paludi, MA., editor. *Psychology for business success*. Vol. 1. Praeger/ABC-CLIO; Santa Barbara, CA: 2013. p. 77-104.
- Schaefer MT, Olson DH. Assessing intimacy: The PAIR Inventory. *Journal of Marital and Family Therapy*. 1981; 7:47–60. doi:10.1111/j.1752-0606.1981.tb01351.x.
- Stephens MAP, Franks MM, Atienza AA. Where two roles intersect: Spillover between parent care and employment. *Psychology and Aging*. 1997; 12:30–37. doi: 10.1037/0882-7974.12.1.30. [PubMed: 9100266]
- Sweet, S.; Moen, P. Advancing a career focus on work and family: Insights from the life course perspective.. In: Pitt-Catsouphes, M.; Kossek, E.; Sweet, S., editors. *The work and family handbook: Multi-disciplinary perspectives, methods, and approaches*. Lawrence Erlbaum; Mahwah, NJ: 2006. p. 189-208.
- Thoits PA. Mechanisms linking social ties and support to physical and mental health. *Journal of Health and Social Behavior*. 2011; 52:145–161. doi:10.1177/0022146510395592. [PubMed: 21673143]
- U.S. Bureau of the Census. Poverty thresholds. 1999. www.census.gov/hhes/poverty/threshld.html (20 August 2000)
- U.S. Bureau of Labor Statistics. Employment characteristics of families: 2013 [News release]. Author; Washington, DC: 2014. USDL-14-0658
- U.S. Census Bureau. [May 25th, 2015] Percentage of persons age 25 and over and of persons 25 to 29 years old with high school completion or higher and a bachelor's or higher degree, by race/ethnicity and sex: Selected years, 1910 through 2011. 2011. from https://nces.ed.gov/programs/digest/d11/tables/dt11_008.asp
- Census Bureau, US. [May 25th, 2015] Current population survey, 2014 Annual social and economic. 2014. from <ftp://ftp2.census.gov/programs-surveys/cps/techdocs/cpsmar14.pdf>
- van Steenbergen EF, Ellemers N, Mooijjaart A. How work and family can facilitate each other: Distinct types of work-family facilitation and outcomes for women and men. *Journal of Occupational Health Psychology*. 2007; 12:279–300. doi:10.1037/1076-8998.12.3.279. [PubMed: 17638494]
- Voydanoff P. The effects of work demands and resources on work-to-family conflict and facilitation. *Journal of Marriage and Family*. 2004; 66:398–412. doi:10.1111/j.1741-3737.2004.00028.x.
- Voydanoff P. The differential salience of family and community demands and resources for family-to-work conflict and facilitation. *Journal of Family and Economic Issues*. 2005; 26:395–417. doi: 10.1007/s10834-005-5904-7.
- Voydanoff, P. A conceptual model of the work-family interface.. In: Korabik, K.; Lero, DS.; Whitehead, DL., editors. *Handbook of work-family integration: Research, theory, and best practices*. Elsevier; New York: 2008. p. 37-56.
- Wayne, JH. Reducing conceptual confusion: Clarifying the positive side of work and family.. In: Crane, DR.; Hill, JE., editors. *Handbook of families and work: Interdisciplinary perspectives*. University Press of America; Lanham, MD: 2009. p. 105-140.
- Wayne J, Grzywacz JG, Carlson DS, Kacmar K. Work-family enrichment: A theoretical explanation and model of primary antecedents and consequences. *Human Resource Management Review*. 2007; 17:63–76. doi:10.1016/j.hrmr.2007.01.002.
- Wayne JH, Musisca N, Fleeson W. Considering the role of personality in the work-family experience: Relationships of the big five to work-family conflict and enrichment. *Journal of Vocational Behavior*. 2004; 64:108–130. doi: 10.1016/S0001-8791(03)00035-6.
- Wayne JH, Randel AE, Stevens J. The role of identity and work-family support in work-family enrichment and its work-related consequences. *Journal of Vocational Behavior*. 2006; 69:445–461. doi:10.1016/j.jvb.2006.07.002.

Figure 1.
The conceptual model of antecedents of work-family enrichment

Table 1

Descriptive Statistics for Time-Varying and Time-Invariant Variables

Time-varying variables	1 month	6 months	15 months	36 months	84 months	120 months	Time-invariant variables	N/n (%)	M (SD)
Work-family enrichment							Benefits of employment	1019 (100)	19.42 (3.13)
<i>M</i>	1.81	1.82	1.85	1.78	1.73		Work Commitment	1015 (99.61)	21.65 (5.77)
<i>SD</i>	.51	.50	.51	.56	.56		Maternal education	1019 (100)	14.52 (2.41)
Total <i>N</i>	762	766	750	770	740		Extroversion	999 (98.04)	42.79 (5.74)
Work-family conflict							Pre-birth employment (<i>N</i> = 1019)		
<i>M</i>	2.72	2.76	2.75	2.73	2.79		Not employed (0)	99 (9.7)	
<i>SD</i>	.69	.71	.71	.75	.75		Employed (1)	920 (90.3)	
Total <i>N</i>	762	766	751	769	740		Maternal age	1019 (100)	28.52 (5.46)
Income-to-needs ratio							Maternal ethnicity (<i>N</i> = 1016)		
<i>M</i>	2.96	3.86	3.88	4.45	4.58		Non-Hispanic White (0)	819 (80.4)	
<i>SD</i>	2.53	3.04	3.12	3.76	3.97		Others (1)	197 (19.3)	
Total <i>N</i>	952	998	991	836	850		Child sex (<i>N</i> = 1019)		
Partner intimacy							Female (0)	494 (48.5)	
<i>M</i>	5.65	3.98	3.88	3.77	3.88		Male (1)	525 (51.5)	
<i>SD</i>	1.04	.75	.79	.90	.89		Child care quality	1019 (100)	2.96 (.41)
Total <i>N</i>	961	285	335	844	726		Maternal depression	1019 (100)	10.80 (8.58)
Social support									
<i>M</i>	5.18	5.04	4.98	4.87	5.12				
<i>SD</i>	.61	.70	.73	.78	.70				
Total <i>N</i>	1019	1003	997	976	869				
Work hours									
<i>M</i>	2.70	24.96	26.76	26.78	30.12				
<i>SD</i>	8.98	18.38	18.49	18.12	17.56				
Total <i>N</i>	1019	1003	996	983	888				
Profession status									
Professional <i>N</i>	575	452	579	571	527				
Nonprofessional <i>N</i>	335	257	353	316	357				
Total <i>N</i>	910	709	932	887	884				

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Time-varying variables	1 month	6 months	15 months	36 months	84 months	120 months	Time-invariant variables	<i>N/n (%)</i>	<i>M (SD)</i>
Job rewards									
<i>M</i>			2.90		2.77	2.80			
<i>SD</i>			.62		.72	.69			
Total <i>N</i>			764		702	709			
Maternal health									
<i>M</i>	3.49	3.30	3.22	3.11	3.22	3.18			
<i>SD</i>	.58	.71	.72	.72	.76	.74			
Total <i>N</i>	1019	1005	997	986	888	850			

Note: 0s and 1s in parentheses for time-invariant variables indicates values for the dummy coded-controls.

Table 2
Family, Employment, and Individual Antecedents of Maternal Work-family Enrichment from Infancy through Middle Childhood

Antecedents within the family domain			Antecedents within the employment domain			Antecedents within the individual domain		
Variables	Estimates	SE	Variables	Estimates	SE	Variables	Estimates	SE
Intercept	2.61***	.20	Intercept	2.91***	.23	Intercept	3.13***	.11
Child age	.03	.02	Child age	-.01	.03	Child age	.01	.01
Income-to-needs ratio	.04***	.01	Work hours	-.003	.003	Maternal education	.03**	.01
Income-to-needs ratio *Child age	-.002*	.001	Work hours*Child age	.0003	.0004	Maternal education*Child age	.0004	.001
Partner intimacy	-.01	.03	Professional status	.10	.07	Extroversion	.01***	.004
Partner intimacy *Child age	-.01	.005	Professional status*Child age	-.004	.01	Extroversion*Child age	-.0002	.0005
Social support	.08*	.02	Job rewards	.15**	.06	Maternal health	.01	.02
Social support *Child age	.001	.003	Job rewards*Child age	.001	.01	Maternal health*Child age	-.003	.003
			Benefits of employment	.07***	.01			
			Benefits of employment*Child age	-.004*	.002			
			Work commitment	.03***	.01			
			Work commitment*Child age	-.0002	.001			
Control variables			Control variables			Control variables		
Pre-birth employment	.18*	.07	Pre-birth employment	.04	.08	Pre-birth employment	.07	.07
Maternal age	-.0002	.004	Maternal age	-.0004	.004	Maternal age	-.002	.004
Maternal ethnicity	.03	.05	Maternal ethnicity	-.02	.06	Maternal ethnicity	.11*	.05
Maternal depression	.001	.002	Maternal depression	-.001	.003	Maternal depression	.002	.002
Child sex	-.02	.04	Child sex	-.02	.04	Child sex	-.01	.04
Child-care quality	-.02	.04	Child-care quality	-.01	.05	Child-care quality	-.03	.04
Work-family conflict	-.31***	.03	Work-family conflict	-.31***	.04	Work-family conflict	-.29***	.02

Note. Parameters are unstandardized regression coefficients.

* $p < .05$

** $p < .01$

.100 > *d*

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Table 3

Family, Employment, and Individual Antecedents of Maternal Work-family Conflict from Infancy through Middle Childhood

Antecedents within the family domain			Antecedents within the employment domain			Antecedents within the individual domain		
Variables	Estimates	SE	Variables	Estimates	SE	Variables	Estimates	SE
Intercept	2.20***	.15	Intercept	2.29***	.18	Intercept	2.18***	.08
Child age	.01	.02	Child age	-.05	.02	Child age	-.02*	.01
Income-to-needs ratio	-.002	.001	Work hours	-.001	.002	Maternal education	.01	.01
Income-to-needs ratio *Child age	.0003	.0007	Work hours*Child age	.001**	.0003	Maternal education*Child age	.002*	.001
Partner intimacy	-.04***	.01	Professional status	-.004	.06	Extroversion	-.003	.003
Partner intimacy *Child age	.003	.002	Professional status*Child age	.02*	.01	Extroversion*Child age	.0002	.0003
Social support	.02	.03	Job rewards	-.004	.05	Maternal health	-.03	.02
Social support *Child age	-.01*	.004	Job rewards *Child age	-.001	.01	Maternal health*Child age	.003	.003
			Benefits of employment	.01	.01			
			Benefits of employment*Child age	-.0002	.001			
			Work commitment	-.001	.01			
			Work commitment*Child age	.0003	.001			
Control variables			Control variables			Control variables		
Pre-birth employment	.09	.05	Pre-birth employment	.07	.06	Pre-birth employment	.05	.05
Maternal age	.002	.003	Maternal age	.001	.003	Maternal age	-.003	.003
Maternal ethnicity	-.02	.04	Maternal ethnicity	-.03	.04	Maternal ethnicity	-.03	.03
Maternal depression	.01***	.002	Maternal depression	.01***	.002	Maternal depression	.02***	.002
Child sex	-.03	.03	Child sex	-.03	.03	Child sex	-.01	.03
Child-care quality	-.05	.03	Child-care quality	-.09**	.04	Child-care quality	-.07*	.03
Work-family enrichment	-.17***	.01	Work-family enrichment	-.19***	.02	Work-family enrichment	-.16***	.01

Note. Parameters are unstandardized regression coefficients.

* $p < .05$ ** $p < .01$ *** $p < .001$.