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ORIGINAL PAPER

Parent Work Conditions and Adolescent Core Self-Evaluations: Examining the Effects of Work Resource Drain and Parent Gender

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Abstract
Purpose Using resource drain and social cognitive theory frameworks, this study investigates the process through which parent time and energy resource drain relates to adolescent core self-evaluation. Parent–child interactive and routine activities and parental social support are tested as mediators.
Methodology Data are reported by mothers, fathers, and adolescent children in 151 middle-class, dual-earner families from the 500 Family Study. Hypotheses are tested using path analysis and moderated mediation.
Findings Parent work hours negatively relate to adolescent reports of received social support, partially due to decreased time spent engaged in parent–child interactive activities. Fathers' work hours indirectly relate to adolescent core self-evaluations through parent–child interactive activities and social support from fathers; this indirect relationship was not found for mothers. Exploratory analyses examined differences by parent and child gender. Fathers' work hours are more likely to detract from parent–child routine activities relative to mothers' work hours. The relationship between father work hours and parent–child interactive activities is buffered for sons compared to daughters.
Implications Results help to explain why parent work-related resource drain relates to adolescent core self-evaluations. Parent gender, type of resource drain, and type of activity are identified as potential boundary conditions. Interactive activities and social support are key mediators warranting attention.
Originality/Value Social cognitive theory is used as a framework for linking parent work-related resource drain and child outcomes. Mechanisms are identified that explain adolescent core self-evaluations development. Use of multisource data helps to mitigate problems with single-source data used in previous studies.

Keywords Dual-earner · Core self-evaluations · Parent–child activities · Social support

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Introduction

The relationship between parent work conditions and child outcomes is an important and timely topic in today's society. This is evident given ample popular press articles on the implications of parent work conditions for child well-being and development (e.g., Carter 2013), as well as the burgeoning research on parent work conditions and child outcomes (Bianchi and Milkie 2010). For example, previous research has shown job demands and control are indirectly linked to child antisocial behaviors (Stewart and Barling 1996). Also, an emerging body of research shows that parent work conditions such as the number of hours worked and emotional strain relate to a variety of child health behaviors and well-being (e.g., Crouter et al. 1999; Johnson and Allen 2013).

Despite the growing body of research investigating relationships between parent work conditions and child outcomes and interest from organizational scholars, relatively little is known about how work conditions and experiences relate to child positive self-concept development. The construct of core self-evaluations (CSE) has been developed to capture the assumptions that people hold about themselves, other people, and the world (Judgeet al. 1998). Individuals with more positive CSE tend to hold complex jobs and view their work tasks as challenging and intrinsically satisfying (Judge et al. 2000). CSE is also linked to a number of social, career, and general life outcomes including popularity (Scott and Judge 2009), job satisfaction (Judge and Bono 2001), and life satisfaction (Judge et al. 1998). In addition, CSE has been linked with adolescent vocational-related outcomes (Hirschi 2011; Koumoundourou et al. 2011). Thus, understanding how parents' work experiences relate to adolescent CSE has implications for the quality of work and non-work and the career trajectories of today's adolescent youths.

The aim of the current study is to illuminate the process by which parent work conditions relate to adolescent CSE. Specifically, we draw from work-family resource drain (Edwards and Rothbard 2000) and social cognitive (Bandura 1986) theories to explain how parents' work-related resource drain relates to their adolescent child's self-evaluations. As shown in Fig. 1, we propose that parent work resource drain (work hours and work fatigue) negatively relates to frequency of parent-adolescent activities. In turn, time spent in parent–child activities and subsequent parental social support serve as developmental feedback channels for children to cultivate positive self-evaluations, thus relating to adolescent CSE.

This study makes several significant contributions to the CSE and to the work-family literature. First, CSE has rarely been examined as an outcome. The primary emphasis of CSE research has been on the prediction of employee work-related outcomes such as job satisfaction and performance (Chang et al. 2012; Judge et al. 2002). Consequently, little is known about the factors that foster CSE (Johnson et al. 2008). Because CSE is linked to numerous indicators of personal, job, and career success (Chang et al. 2012), it is important to understand how it may be developed across the life course in order to advance CSE theory building. Second, adolescent outcomes are important given that adolescents are currently, or will soon be, part of the workforce (Johnson and Allen 2013). The relationship between workers' experiences and child well-being is a legitimate human resource concern, as child health and well-being are linked to company health care expenses, employee absenteeism and tardiness, and work interruptions (Major et al. 2004). Third, we add conceptual clarity to the literature by investigating mediating mechanisms that help explain *why* parent work experiences are linked to adolescent outcomes. We further illuminate this process by comparing two distinct types of parent–child activities (routine and interactive) that serve as mediating mechanisms. Explicating the process through which parents' work-related resource drain relates to adolescent CSE has the potential to identify theoretically derived targets for interventions that can circumvent negative impacts of parent work conditions on adolescents.

By including both mothers and fathers in dual-earner couples, we are able to examine the joint effects of parents' work resource drain as well as determine if there are differential relationships between mothers and fathers. Outside of a few exceptions (e.g., Crouter et al. 1999; Galambos et al. 1995), previous research has tended to focus exclusively on mothers *or* fathers (e.g., Johnson and Allen 2013; MacEwen and Barling 1991; Stewart and

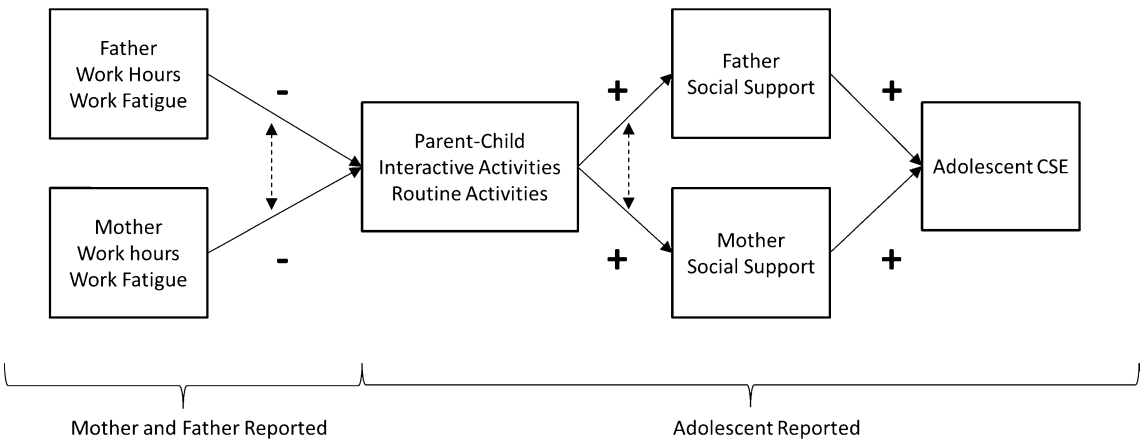

Fig. 1 Proposed conceptual model. *Dashed arrows* represent parameters constrained to be equal to test for differences in mediating mechanisms and parent gender

Barling 1996), with most studies focusing solely on mothers (Perry-Jenkins and MacDermid 2012). Simultaneously considering working parents of both genders is important because dual-earner couples make up the majority of families with children in the United States, Canada, and the U. K. (Catalyst 2012; Masterson and Hoobler 2014). Also, the inclusion of fathers in our study is particularly timely because fathers are playing an increasingly enlarged role as parents within dual-earner families (Harrington et al. 2010).

Hypothesis Development

Work Resource Drain and Parent–Child Activities

Resource drain theory proposes that individuals have a limited amount of resources such as time, energy, and attention (Edwards and Rothbard 2000). Because resources are finite, when they are expended in one domain, they are no longer available for use in an alternate domain (Edwards and Rothbard 2000). Time and energy are among the most crucial resources needed for individuals managing work and family roles (ten Brummelhuis and Bakker 2012) and have been the subject of extensive academic focus in the work-family field (Allen 2012). Thus, in the current study, we focus on time (work hours) and energy (work fatigue) resources and their relationship with parent–child interactive and routine activities.

Parents and their children engage in a variety of joint activities, such as shopping together, completing homework together, and playing sports together. Such activities are important for child development and well-being, but also require time and energy from the child and his or her parents (Cho and Allen 2012; Crouter and Bumpus 2001). Thus, parent–child activities are a linking mechanism between parent work time and energy and child outcomes. Among working parents, time is a finite resource that must be divided between work and family roles (Edwards and Rothbard 2000; Greenhaus and Beutell 1985). Ostensibly, the more hours and energy parents expend working, the fewer hours and energy they have available for parent–child activities within the family domain (Edwards and Rothbard 2000; Greenhaus and Beutell 1985).

Research supports a negative relationship between time and energy resource drain and family-related outcomes. Studies have shown mother and father work hours negatively relate to the frequency of daily parent–child activities (e.g., watching television, having dinner together; Roeters et al. 2010, 2012). Further, adolescent aggregated reports of warmth and parent-adolescent conflict have been associated with mothers' and fathers' energy depletion in the form of work overload and perceived stress (Crouter et al. 1999; Galambos et al. 1995).

Although previous research speaks of the negative relationship between work-related resource drain and interactions such as parent-adolescent conflict and parent–child activity frequency, there is a limited understanding of specific types of parent–child activities. Focusing on specific parent–child activities is critical because previous research shows work time and demands differentially relate to different types of parent–child activities (Bass et al. 2009; Bianchi et al. 2005). Additionally, using a more fine-grained lens to investigate parent–child activity brings conceptual clarity to the process by which parent work-related resource drain is linked to child well-being outcomes.

Parent–child activities have been categorized in numerous ways. Most typically, researchers have distinguished routine activities from interactive or leisure activities (Bianchi et al. 2005; Milkie et al. 2010; Roeters et al. 2009). Routine activities are defined as parent–child activities devoted to basic care, such as providing meals and transportation. Interactive activities are defined as time devoted to serving educational, emotional, and/or social functions, such as reading and engaging in sports or hobbies. Routine and interactive activities are conceptually distinct. For example, routine activities are more obligatory relative to interactive activities (Roeters et al. 2009). Interactive activities are also more time and energy intensive compared to routine activities (Cho and Allen 2012).

Research on relationships between mother and father work-related time and energy resource depletion and parent–child routine and interactive activities is limited. Further, extant findings are based on parent-reported parent–child activities, focus on younger children or on a wide age range of children, and examine mother and father relationships separately (e.g., Bass et al. 2009; Roeters et al. 2009). The current study extends previous research by using adolescent reports of parent–child activities as opposed to their parents' reports. This is important in that use of adolescent reports helps rule out common method bias as an explanation for previous results, and more appropriately queries the source most affected by such activities (i.e., the adolescent). Focusing on adolescents also allows us to examine the generalizability of previous studies conducted with younger children. We also simultaneously examine mother and father relationships between resource drain and parent–child routine and interactive activities. This is important because the family is arguably the most appropriate focal unit, and focusing on one family member ignores possible intra-family dynamics that are present in dual-earner couples (Masterson and Hoobler 2014).

Drawing from the basic tenets of resource drain theory (Edwards and Rothbard 2000), we predict a negative relationship between mother and father work hours and frequency of parent–child interactive activities. When it comes to the availability of time resources between parents, dual-earner couples do not have the luxury of readily substituting for one another to help mitigate the loss of one's finite time resources because their time is already taxed. Thus, we suggest that each parent's expenditure of time resources limits their ability to participate in activities with their children. Similarly, we predict a negative relationship between work fatigue and frequency of parent–child activities. Similar to time resources, energy resource depletion (i.e., fatigue) cannot be easily compensated for by a spouse whose energy resources are also divided between work and family. Therefore each parent's work fatigue limits his or her ability to engage in interactive activities at home.

Hypothesis 1 Parent (father, mother) work hours negatively relate to parent–child interactive and to parent–child routine activities.

Hypothesis 2 Parent (father, mother) work fatigue negatively relates to parent–child interactive and to parent–child routine activities.

There may also be differential relationships between time and energy resource drain and the two types of parent–child activities. Roeters et al. (2009) theorize that interactive activities require more time and effort relative to routine activities and that routine activities are more obligatory in nature. Work-related resource drain is more likely to impinge on elective, demanding tasks (i.e., interactive activities) as opposed to less demanding obligatory tasks (i.e., routine activities), because the latter must be completed in order to meet the basic needs of the family and require less time and energy. Therefore, we expect work time and fatigue to more strongly relate to interactive activities compared to routine activities.

Hypothesis 3 Parent (father, mother) work hours and work fatigue more strongly relate to parent–child interactive activities than to parent–child routine activities.

Parent–Child Activities, Parental Social Support, and CSE

Within the developmental literature, research consistently shows that children who have warm and supportive relationships with their parents tend to have positive outcomes, such as fewer problem behaviors (e.g., Galambos et al. 1995), better mental health (e.g., Helsen et al. 2000), and are more likely to engage in career planning (e.g., Rogers and Creed 2011) compared to children with less parent support. Social support can be defined as instrumental or as emotional (Beehr and McGrath 1992; Cohen and Syme 1985). Instrumental support occurs when individuals provide support in the form of tangible solutions to problems, whereas emotional support is when individuals provide support in the form of caring for another's well-being (Beehr and McGrath 1992). We focus on emotional support because it specifically targets the support receiver's evaluations or esteem (Cohen and Wills 1985). Regardless of type of parent–child activity, we expect adolescents who frequently engage in parent–child activities with their parents to develop a strong sense of emotional support due to the involvement required for such activities.

Core self-evaluations represent fundamental, subconscious perceptions people have about themselves (Judge et al. 1998). As a higher-order construct, CSE comprises multiple indicators with the most common being locus of control, neuroticism, generalized self-efficacy, and self-esteem (Judge and Bono 2001). CSE is conceptually unique from any single core self-evaluations trait, representing a holistic evaluation of the self (Judge et al. 1998). CSE is also empirically distinct, as it more consistently predicts outcomes such as job satisfaction and performance relative to individual self-concept traits (Judge 2009; Judge et al. 2002). Recently, the structure and components of CSE have been scrutinized (e.g., Chang et al. 2012; Johnson et al. 2008). For example, there is no consensus with regard to whether all four components need to be measured in order for the higher-order construct to represent CSE or as to exactly which traits should be included (Chang et al. 2012). Specifically, due to the broad nature of the criteria, alternative constructs, such as positive affect, may also qualify as lower-order components of CSE (Bono and Judge 2003; Johnson et al. 2008). Indeed, positive affect was offered as a possible lower-order CSE trait when the concept was originally developed (Chang et al. 2012; Judge et al. 1997). Moreover, Johnson et al. (2008) recommended that traits consistent with approach motivation such as positive affect be specified as part of the CSE construct. In the current study, we operationalize CSE using four components: positive affect, locus of control, neuroticism, and self-esteem.

Because CSE is considered a trait, it is almost exclusively studied as an antecedent in organizational research. However, recent research shows personality traits are malleable over time, from childhood into late adulthood (Roberts et al. 2008). By extension, CSE is also likely malleable (Johnson et al. 2008). Some of the largest changes in personality tend to occur in childhood and adolescence (Caspi and Roberts 2001; Roberts et al. 2008), and parents are known to have a profound influence on personality development (Caspi and Roberts 2001). Thus

during adolescence, CSE is likely developing and susceptible to parental influence. We therefore focus on adolescent CSE as our outcome of interest.

We view parental influence on child CSE development through the lens of social cognitive theory. Social cognitive theory proposes we learn about ourselves and our capabilities through environmental, cognitive, and social mechanisms (Bandura 1977, 1991). Bandura outlines several mechanisms by which individuals learn, including feedback from the self and from others (Bandura 1977). According to social cognitive theory, feedback from others is a key reinforcement tool that helps individuals learn behaviors. Feedback can also be instrumental for learning self-evaluations (Bandura 1991). When individuals receive positive feedback, they are likely to develop positive evaluations of themselves (Bandura 1991). This theory can be readily applied to understand the link between parent–child activities and adolescent CSE. When parents make an effort to spend time engaging in interactive activities with their adolescent children, the adolescent learns they are supported and cared for by the parent. This positive feedback from others (in the form of interactive parent–child activities) and the self (in the form of feeling supported) then reinforces positive core self-evaluations.

Previous research supports links between parent–child activities, social support, and self-evaluations. Estes (2004) found a positive relationship between mother–child activity frequency and mother-reported warmth. Furthermore, parent–child activities and perceptions of parent support are related to lower-order self-concept constructs such as self-esteem, self-worth, and self-efficacy (Gecas and Schwalbe 1986; Lam et al. 2012). We extend this research by investigating both interactive and routine parent–child activities and core self-evaluations. Based on these findings and the social learning process suggested by social cognitive theory (Bandura 1991), we predict:

Hypothesis 4 Parent–child interactive and routine activities positively relate to adolescent perceptions of social support from fathers and mothers.

Hypothesis 5 Adolescent perceptions of social support from fathers and mothers positively relate to adolescent CSE.

As mentioned, researchers have yet to clearly disentangle activity types and their relationships with child outcomes. Identifying which parental activity is the stronger link for facilitating social support and CSE is important in order to conceptually clarify the theoretically proposed learning process (Bandura 1991), as well as to inform recommendations for improving adolescent perceptions of social support and positive CSE. Because interactive activities require effort above and beyond obligatory parenting activities (Roeters et al. 2009), they are more likely to be meaningful, conveying greater support than routine activities. Further, interactive activities require the parent to be actively engaged, facilitating talking and sharing. This social interaction is key for the developmental feedback processes (Bandura 1991). Therefore, we expect interactive activities to more strongly relate to social support than to routine activities.

Hypothesis 6 Parent–child interactive activities more strongly relate to adolescent perceptions of social support from mothers and fathers than do parent–child routine activities.

Connecting Work Resource Drain and Adolescent CSE

In addition to the proposed direct relationships, we posit serial mediated relationships between parent work resource drain, parent–child activities, support, and CSE. The relationship between parent work conditions and child outcomes is thought to be a multi-step process in which characteristics of parents' work (e.g., hours and fatigue) transfer to the home domain, affecting interactions between parents and their children (e.g., parent–child interactive activities and social support), and subsequent child outcomes such as CSE (e.g., Cho and Ciancetta 2015; Galambos et al. 1995). Indeed, it may be that parent–child interactions and parental support are key links between parent work conditions, such as work stress, and child outcomes, such as psychological well-being (Cho and Ciancetta 2015; Crouter and Bumpus 2001). Following this reasoning, we expect parent resource drain to relate to adolescent CSE through the linkage of parent–child interactive activities to parental social support.

Hypothesis 7a There is an indirect negative relationship between parent (father, mother) work hours and adolescent CSE through parent–child interactive and routine activities and parental social support.

Hypothesis 7b There is an indirect negative relationship between parent (father, mother) work fatigue and adolescent CSE through parent–child interactive and routine activities and parental social support.

Exploring Parent and Child Gender

Previous research indicates that the effects of parent work on children may differ across parent and child gender (Perry-Jenkins and MacDermid 2012). Some studies have

found the relationship between parent work conditions and parent–child activities differs in strength for mothers and fathers (e.g., Roeters et al. 2009, 2010), although others have found no difference (e.g., Bass et al. 2009). Mothers and fathers have traditionally distinct and established gender roles. Although mothers' care giving roles undoubtedly encompass both interactive and routine activities, mothers tend to be more involved in routine activities compared to interactive activities (Bianchi et al. 2005; Offer and Schneider 2011), as these activities care for the child's basic and most obligatory needs (Roeters et al. 2009). Fathers spend a higher proportion of parent–child activity time with children engaged in interactive activities compared to mothers (Bianchi et al. 2005; Roeters et al. 2009). Due to these differences in activity frequency, it may be that interactive activities are a primary linking mechanism for fathers and thus exhibit stronger relationships in the model for fathers compared to mothers. Likewise, it may be that routine activities are more strongly related to resource drain and support for mothers compared to fathers. Accordingly, we tested differences in the strength of resource drain to parent–child activities paths between mothers and fathers (Hypothesis 1, Hypothesis 2), as well as in parent–child activities to social support paths (Hypothesis 4).

Research Question 1 Are there differences in the strength of resource drain paths for mothers compared to fathers?

Research Question 2 Are there differences in the strength of parent–child activities-social support paths for mothers compared to fathers?

Similarly, child gender may alter the current study proposed relationships. Although there is a dearth of research on the interaction between parent and child gender in the work-family literature, at least a few studies suggest child gender is important to consider for the relationship between parent work demands and child outcomes. For example, Brooks-Gunn and colleagues (2002) found maternal employment during infancy was linked to worse childhood outcomes for sons compared to daughters. Although they did not directly assess gender, Barling et al. (1999) found the relationship between parent job insecurity and adolescent cognitive difficulty was enhanced when the adolescent identifies with the job-insecure parent. Thus, girls (who may be more likely to identify with mothers) might be more susceptible to work-related demands imposed on mothers than on fathers. Due to lack of substantial empirical and theoretical foundation, we explore child gender as a moderator of the resource drain to parent–child activities paths for mothers and fathers (Hypothesis 1, Hypothesis 2).

Research Question 3 Does child gender moderate the relationships between parent resource drain and parent–child activities?

Method

Participants

Data from the 500 Family Study were analyzed to investigate the proposed hypotheses (Schneider and Waite 2008). The purpose of the study was to investigate how dual-earner working families invest time, as well as the implications of work-family time decisions on child and adolescent socialization and well-being. The original study targeted 300 families with adolescents and 200 families with kindergarteners. Families from eight communities across the United States were recruited via phone, mail, and newspaper advertisements, as well as school administration info packets and participant referrals; data were collected through paper-and-pencil questionnaires. Communities were selected to represent diverse geographic regions and varying degrees of urbanization, socioeconomic status, and labor force composition.

The sample for the current study consisted of 151 dual-earner couples with adolescents. No siblings were included, as parents responded to questions for only one target adolescent in the household. Families were excluded from the original sample of 300 based on eligibility criteria. Parents had to be married or living with their partner (25 families removed), the child had to live in the home at least half of the time (6 families removed), both parents were required to work at least 15 h per week (84 families removed), data had to be available for mothers, fathers, and adolescents on at least one variable of interest (six families removed), adolescents had to be of age 12 or older (one family removed), and parents had to be biologically related to the adolescent (27 families removed), for a final sample of 151 families. The adolescent living at home and biological relatedness eligibility requirements were imposed to limit confounds such as opportunity to spend time with the child and relationship duration/quality. We imposed marriage and work hour requirements to ensure all parents fit the definition of a dual-earner household and that each parent had sufficient work obligations.

In the final sample of 151 families, mothers and fathers were primarily white, non-Hispanic (86.1 and 92.7 %, respectively); most of the remaining parents were either black (2.0 and 3.3 %), Hispanic (3.3 and 0 %), or of mixed ethnicity (0.7 and 1.4 %). Mothers and fathers were well educated, having a college degree (27.8 and 23.8 %, respectively), a master's degree (40.4 and 32.5 %), or a

professional degree (17.9 and 35.1 %). Most parents reported a yearly income of over $80,000 (82.7 % for mothers and 80.3 % for fathers). On average, mothers worked 26–37 h per week and fathers worked 38–45 h per week. Parents worked in a range of occupations. Mothers were most frequently employed in executive/managerial (41.7 %), teacher/librarian/religious (15.2 %), and service/clerical/manual (9.9 %) occupations while fathers were employed primarily in executive/managerial (29.8 %), sales/public relations (13.2 %), and lawyer/judge (11.9 %) occupations. Adolescents ranged in age from 12 to 18 years old ($M = 15.6$, $SD = 1.47$) and their grade level ranged from 6th to 12th grade (*Mode* = 9th grade). Number of male and female adolescents (45.7 % male) was approximately equal.

Measures

Work Hours

Mothers and fathers each reported work hours ("Approximately how many hours do you spend working for your main job in a typical week?"). Participants responded on a seven-point scale: *1–15, 16–25, 26–37, 38–45, 46–50, 51–60 hours, and more than 60 hours*.

Work Fatigue

Two items ("How often do you finish your workday feeling physically exhausted?"; "How often do you come home from work feeling drained of energy?") were used by mothers and by fathers to report on their work fatigue. Responses were provided on a five-point scale that ranged from *never* to *always*. The two items were highly correlated among mothers ($r = .72$) and among fathers ($r = .78$).

Parent–Child Interactive and Routine Activities

Adolescents provided reports of parent–child interactive and routine activities. For interactive activities, they indicated how often they did four activities with their parents ("doing shared hobbies together"; "doing art or craft activities together"; "listening to or playing music together"; "doing sports/athletic activities"). For routine activities, adolescents reported how often they participated in three activities with their parents ("preparing meals together"; "doing household chores together"; and "shopping together"). These items are consistent with conceptualizations and measures of routine and interactive activities in the literature (e.g., Roeters et al. 2009). Parent–child interactive and routine activities were reported in reference to parents as a single unit, rather than mothers and fathers separately. Responses were provided on a four-point scale that ranged from *rarely or never* to *every day or almost every day*. Parent–child interactive and routine activities are formative measures. Therefore the items are not caused by a latent factor, but rather combine to form the composite variable (Williams et al. 2003). Thus, inter-item covariance and reliability are not relevant indicators of measure quality.

Social Support

Social support was assessed with a four-item measure. Adolescents completed the measure in reference to mothers and to fathers separately. Items were rated on a five-point scale that ranged from *never true* to *always true*. Sample items included "tell mom about problems" and "depend on father for help with problems." Reliability estimates were ($\alpha = .79$) for mothers and ($\alpha = .85$) for fathers.

CSE

The four CSE traits were assessed with 11 items: positive affect (three items), self-esteem (two items), locus of control (three items), and neuroticism (three items). All items were combined to create the composite CSE measure. This strategy of combining individual trait measures to operationalize CSE is both commonly used and empirically supported (Chang et al. 2012; Johnson et al. 2008; Judge and Bono 2001). Positive affect was rated on a four-point scale that ranged from *never or rarely* to *most of the time (5–7 days per week)*, and self-esteem, locus of control, and neuroticism was rated on a five-point scale that ranged from *never* to *very often.* Sample items include, "I enjoyed life" (positive affect), "I feel good about myself" (self-esteem), "I feel on top of things" (locus of control), and "I feel worried" (neuroticism). Items were standardized prior to analysis so they could be combined into a single CSE scale ($\alpha = .84$).

Results

Preliminary Analyses

All items were chosen for the current study based on the conceptual definition of the construct and the empirical verification of internal homogeneity of items. Coefficient alpha, item-total correlations, and inter-item correlations were examined for multi-item measures to internal consistency.

Because routine and interactive activities are formative measures, we confirmed measurement properties in two

steps. First, we ran exploratory factor analyses (principle axis factoring, direct oblimin rotation) for routine and interactive activities separately to confirm that each set of items was reasonably correlated enough to load onto a single factor (see similar approach used in Mitchell et al. 2001). For each activity type, a single factor was extracted with all loadings greater than .40. We also examined correlations between activities to ensure activity types were distinct ($r = .36$ as reported in Table 1). From these analyses we concluded that both interactive and routine activity items were homogenous within each type, and that interactive and routine activities were empirically distinct from one another.

We used confirmatory factor analysis (CFA) to examine the factor structure of CSE and ensure that all items loaded onto their four a priori factors and the higher-order CSE factor. We conducted a second-order CFA in which CSE indicators loaded on their respective four factors and those factors loaded on the higher-order CSE factor. This model demonstrated adequate fit ($\chi^2(40) = 81.01$, $p < .001$, CFI = .93, TLI = .90, RMSEA = .084, SRMR = .069) and fit was significantly better compared to a one-factor model ($\Delta\chi^2(4) = 89.77$, $p < .001$, CFI = .77, TLI = .71, RMSEA = .14). These results support treating CSE as a single higher-order construct comprising four facets: positive affect, self-esteem, locus of control, and neuroticism (reverse coded). Accordingly, in all subsequent model testing, we operationalized CSE as a composite derived from item means for positive affect, self-esteem, locus of control, and neuroticism.

Mediation Tests

We ran descriptive statistics and zero-order correlations to examine patterns among the variables (Table 1). Frequency distributions and scatter plots were examined to assess normality, homoscedasticity, and linearity; all variables met these statistical assumptions.

To test the study hypotheses we used path analysis in Mplus version 7.3 (Muthén and Muthén 2011), modeling the family (mother, father, and adolescent) simultaneously at one level. Mother- and father-independent variables (work hours, work fatigue), as well as adolescent-reported mother and father support were all allowed to covary to account for family dependencies. This approach allowed us to examine the relative influence of mothers and fathers on adolescent children while maintaining the assumption of independence (see Crouter et al. 1999 for a similar approach). We first ran a model with all of the proposed mediated relationships. This model included all direct and indirect hypothesized paths (i.e., Hypotheses 1–8). Indirect effects were interpreted using 95 % confidence intervals (CIs) with 5000 bootstrapped iterations (Preacher et al. 2007).

Parameter estimates are displayed in Fig. 2. The mediated model results show mother and father work hours were negatively and significantly related to parent–child interactive activities ($\beta = -.16$, $p = .04$; $\beta = -.18$, $p = .04$, respectively); however, neither mother nor father work hours were significantly related to parent–child routine activities ($\beta = .07$, $p = .40$; $\beta = -.16$, $p = .07$, respectively). Therefore, Hypothesis 1 received partial support. Hypothesis 2 was not supported, as neither mother nor father work fatigue related to parent–child interactive activities ($\beta = -.02$, $p = .79$; $\beta = .03$, $p = .71$, respectively) or to parent–child routine activities ($\beta = .08$, $p = .31$; $\beta = .02$, $p = .83$, respectively). Parent–child interactive activities had a significant positive relationship with social support from fathers ($\beta = .24$, $p = .02$), but not mothers ($\beta = .12$, $p = .27$). Parent–child routine activities were not significantly related to social support from fathers ($\beta = 0.07$, $p = 0.42$) or from mothers ($\beta = 0.14$,

Table 1 Correlations and descriptive statistics

Variable	*M*	*SD*	1	2	3	4	5	6	7	8	9
1. Father work hours	4.97	1.10	–								
2. Mother work hours	3.78	1.16	−0.01	–							
3. Father work fatigue	3.07	0.75	0.23*	0.08	(0.78)						
4. Mother work fatigue	3.29	0.67	0.08	0.18*	−0.02	(0.70)					
5. Routine parent–child activities	2.35	0.65	−0.16	0.09	−0.04	0.06	–				
6. Interactive parent–child activities	1.68	0.62	−0.17*	−0.16	−0.05	−0.07	0.36*	–			
7. Father social support	2.71	0.89	0.07	−0.02	0.05	0.03	0.13	0.23*	(0.88)		
8. Mother social support	3.28	0.93	0.03	0.03	0.08	0.17*	0.19*	0.15	0.54*	(0.87)	
9. CSE	0.01	0.63	−0.13	−0.00	−0.04	−0.09	−0.05	0.06	0.21*	0.10	(0.89)

Numbers in parentheses are reliability coefficients

* $p < .05$

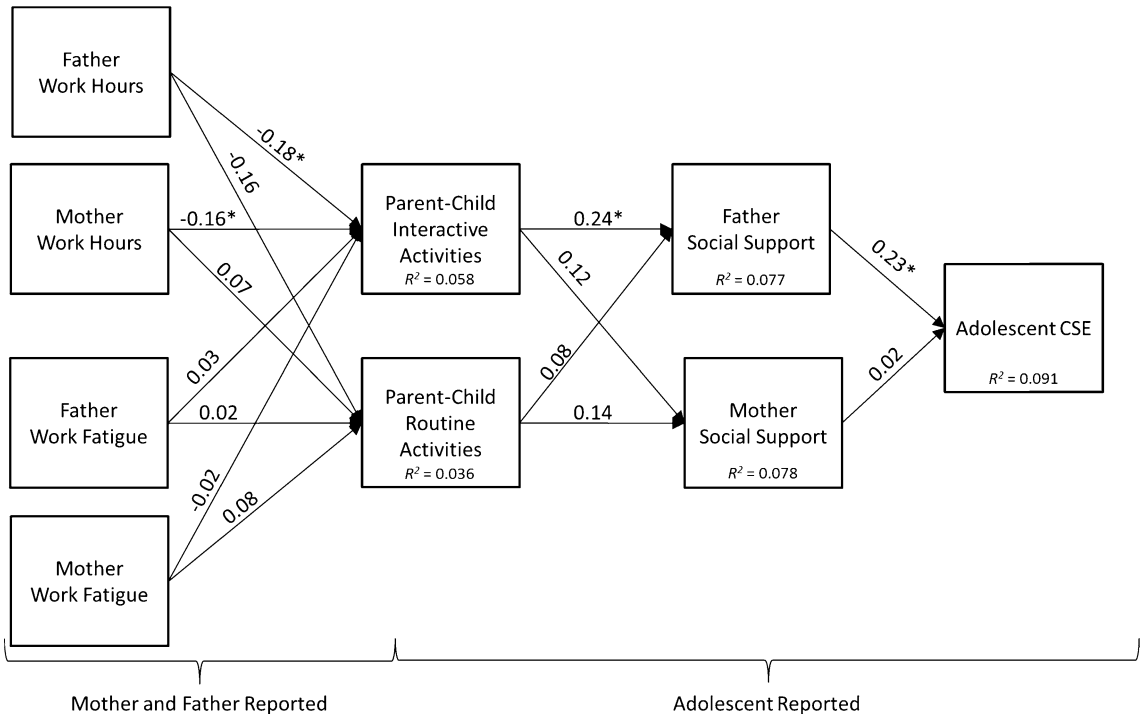

Fig. 2 Mediated model results. Standardized parameter estimates shown. In line with recommendations by Preacher et al. (2007), all possible direct paths were included in model testing but are omitted from the figure for parsimony. * $p < .05$

$p = 0.19$). Thus, Hypothesis 4 received partial support. Similarly, CSE was related to social support from fathers ($\beta = .23$, $p = .02$), but not from mothers ($\beta = .02$, $p = .87$), partially supporting Hypothesis 5. The model explained a total of 9.1 % of the variability in CSE.

To test the relative strength of relationships proposed in Hypotheses 3 and 6, a series of constrained models were tested in which the paths from resource drain to parent–child activities (Hypothesis 3) from parent–child activities and social support (Hypothesis 6) were constrained to be equal for interactive and routine parent–child activities. We then tested for differences in model fit using the Chi-square difference test for the constrained model compared to the hypothesized model. Constrained paths were tested one at a time to detect differences that might be otherwise obscured by non-significant constraints. A significant decrease in Chi-square fit indicates the paths differ in strength for interactive activities compared to routine activities. Constraining the paths from mother work hours to both interactive and routine activities to equality significantly decreased model fit ($\Delta\chi^2(1) = 6.09$, $p = .01$). Thus, consistent with Hypothesis 3, mother work hours were more strongly related to interactive activities ($\beta = -.09$, $p = .04$) compared to routine activities ($\beta = .04$, $p = .40$). No other equality constraints significantly decreased model fit. Therefore, Hypothesis 3 was partially supported and Hypothesis 6 was not supported.

Next, the indirect effects were examined to determine support for Hypotheses 7a and 7b. Of these, Hypothesis 7a received partial support. A serial mediation effect was supported for fathers, in which father work hours were significantly related to adolescent CSE through parent–child interactive activities and social support from fathers (indirect effect = −.006, 95 % CIs = −.023, −.001). A serial mediation effect through parent–child interactive effects was not found for mothers (indirect effect = .00, 95 % CIs = −.006, .002). Further, no significant indirect effects were found to operate through parent–child routine activities. Results failed to support Hypothesis 7b, no serial mediation effects were found from mother or father work fatigue to adolescent CSE through parent–child activities and mother and father support (mother and father indirect effects ranged from −.009 to .016, 95 % CIs included zero).

Parent and Child Gender Analyses

We tested differences between mothers and fathers in the resource drain to parent–child activities paths (Research Question 1), as well as in parent–child activities to social support paths (Research Question 2) by constraining the mother and father paths to equality. We ran each constraint separately to ensure significant constraints were not masked by non-significant constraints. Results indicated

that the paths from mother and father work hours to parent–child routine activities significantly differed from one another ($\Delta\chi^2(1) = 4.01$, $p = .045$). Although each individual path was not significant (mother $\beta = .04$, $p = .40$, father $\beta = -0.10$, $p = .07$), the significant decrease in model fit indicates the relationship between work hours and parent–child routine activities was stronger for fathers than for mothers. Thus, for the first research question, we found father work hours are more likely to detract from parent–child routine activities compared to mothers work hours. None of the remaining parent gender difference tests were significant.

To explore moderation by child gender (Research Question 3), we ran a model that included all of the relationships tested in the mediated model in addition to child gender as a moderator of the resource drain relationships. These relationships were chosen because they represent the critical point at which parent work hours and fatigue cross over to adolescent-reported parent–child activities. One significant interaction effect emerged. Comparison to a baseline model that did not include interaction paths indicated significantly better model fit for the moderated model ($\Delta\chi^2(38) = 1825.60$, $p < .05$). Child gender moderated the relationship between father work hours and parent–child interactive activities ($\beta = -1.15$, $p = .008$).[1] This moderation is graphed in Fig. 3. The figure shows that for daughters, the expected negative relationship between father work hours and father parent–child interactive activities holds, but this relationship is buffered for sons. We explored the possibility of first-stage moderated mediation for this effect (Edwards and Lambert 2007). Moderated mediation for subgroups occurs when the indirect effect is significant for one group but not the other (Edwards and Lambert 2007). Results showed child gender moderated the indirect relationships between father work hours and parental support and CSE. The indirect relationships between father work hours and both parental support and CSE were significant for daughters as evidenced by confidence intervals excluding zero (indirect effect parental support = −.067, 95 % CIs = −.156, −.014; indirect effect CSE = −.011, 95 % CIs = −.035, −.002). However, these indirect relationships were not significant for sons as evidenced by confidence intervals including zero (indirect effect parental support = .024, 95 % CIs = −.028, .116; indirect effect CSE = .004, 95 % CIs = −.004, .027).

Discussion

In the current study, we drew from tenets of resource drain and social cognitive theory to examine the process through which parent work-related factors relate to adolescent CSE. More specifically, we tested the relationship between mother and father work hours and work fatigue and adolescent CSE as mediated by parent–child routine and interactive activities and parental social support. Finally, we explored the extent that parent and child gender moderated the relationship between parent work hours and fatigue and parent–child interactive activities.

Consistent with resource drain theory, we found both mothers' and fathers' work hours negatively related to parent–child interactive. These results extend previous research indicating Dutch mother and father work hours detract from parent–child activities (Roeters et al. 2012). Results also supported an indirect relationship from work hours to adolescent-reported social support for fathers. As fathers spend more time at work, their adolescent child reports receiving less parental social support in part due to a lack of parent–child interactive activities. Our findings reveal that parent–child interactive activities are therefore a key variable in the relationship between parent work and perceptions of support received from parents. We also found support for a significant indirect relationship between father work hours and adolescent CSE through parent–child interactive activities and social support from fathers. As fathers spent more time at work, their adolescent child was less likely to have positive CSE due to limited parent–child interactive activities and less social support from fathers, when compared to adolescents whose fathers spent less time at work.

Not all of our hypothesized relationships were significant, highlighting possible boundary conditions. The indirect relationship from parent work hours to adolescent support and CSE were not supported for mothers. It may be that for fathers, parent–child interactive activities are a key linking mechanism, but for mothers other types of interactions may be comparatively more important. For example, mothers are more involved in parental monitoring compared to fathers (e.g., Offer and Schneider 2011). Therefore mother work hours may be more likely to influence perceptions of support and CSE through monitoring, rather than interactive activities.

[1] The moderated model produced an inflated standardized loading greater than one for the path from the father work hours by child gender interaction term to parent–child interactive activities. Inflated loadings are typically due to multicollinearity among the predictors in a model and are not necessarily problematic for model results and interpretation (Deegan 1978). The inflated loading could be attributed to multicollinearity among the interaction and simple exogenous variables, as the inflated loading was no longer present when these parameters were constrained to zero ($\beta = -.59$). Regardless of whether the covariances among the interaction terms and simple exogenous variables were estimated or constrained, the substantive results (i.e., significance of the interaction effect on parent–child interactive activities) remained the same.

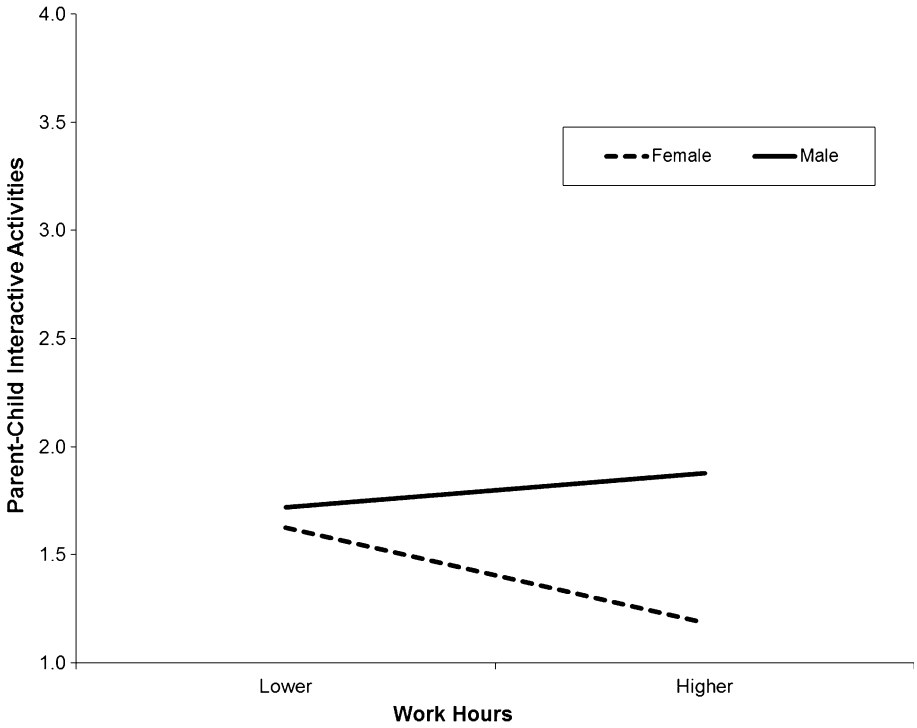

Fig. 3 Visual representation of the relationship between father work hours and parent–child activities moderated by child gender. Lower and higher work hours corresponds to one standard deviation below and above the mean, respectively

Results also showed no significant direct relationships between routine parent–child activities and work hours, work fatigue, or social support for mothers or fathers. Our results reveal routine parent–child activities are not a key mechanism for linking parent work-related resource drain and adolescent CSE. This may occur because routine activities are obligatory in nature in order for parents to care for basic child well-being (Roeters et al. 2009). Therefore parents enact these activities regardless of work responsibilities. Further, adolescents may not view engagement in routine parent–child activities as a communication of support above and beyond the status quo. This lack of significant findings with regard to routine activities is particularly enlightening when contrasted with the significant findings for interactive activities. Importantly, our results reveal that the type of interaction is important to consider when investigating social learning and resource drain processes. To further extend this work, researchers should begin to investigate perceptions of interaction quality in addition to frequency of different types of activities.

Contrary to expectations, we did not find significant effects for mother or father work fatigue. This is surprising given previous research supporting the work fatigue-parent–child activities link (e.g., Roeters et al. 2010). Previous research tends to focus on parents with younger children (Bass et al. 2009; Cho and Allen 2012) or on a wide range of child ages (e.g., MacEwen and Barling 1991; Roeters et al. 2009, 2010). There is evidence that as children grow older, parent–child activities become increasingly infrequent (Bryant and Zick 1996; Roeters et al. 2012), and adolescents start to rely on peers for support and self-concept development (e.g., Hoffman et al. 1988). It may be that even when fatigued from work, parents of adolescent children continue to engage in interactive activities at a frequency sufficient to meet adolescents' support needs, as such activities with adolescents may be less exhausting compared to those with young children. Another factor to consider when viewing our results compared to others is that we obtained reports of parent–child activities from adolescents, while in previous studies reports of both parent fatigue and parent–child activities were obtained from parents, increasing the likelihood that results relationships could be inflated due to same-source bias.

Finally, our results add to current knowledge of the extent to which each parent contributes uniquely to child outcomes. The current study found differential support for the role of mothers and fathers in the proposed work drain process, as only the direct relationships between parent–child interactive activities, support, and CSE were significant for fathers. Further, we found the relationship between father work hours and parent–child interactive activities was more negative for fathers compared to mothers, although each individual path was not significant. These results are contrary to previous research showing mother work characteristics and feelings of work-family balance have a stronger influence on parent–child activities and support compared to fathers (Milkie et al. 2010; Roeters

et al. 2009). However, it should be noted that work-family research comparing mothers and fathers is largely mixed, with some studies concluding father work demands are most influential for parent–child interactions (Roeters et al. 2012), and yet others find little difference (e.g., Crouter et al. 1999). Mixed results suggest the relationship between work characteristics and child outcomes for mothers and fathers is complex, depending on a number of factors such as type and quality of activity (Bass et al. 2009; Cho and Allen 2012), child gender (Brooks-Gunn et al. 2002), child age (Roeters et al. 2012), work characteristics examined (Bass et al. 2009), and child outcome examined (Galambos et al. 1995). Indeed, in our gender analyses we found the negative relationship between father work hours and parent–child interactive activities was stronger for daughters compared to sons and this relationship carried through to CSE. It is therefore important to consider both parent and child gender simultaneously as their interaction may change the extent that work characteristics relate to child well-being.

Implications for Theory and Practice

The current findings have implications for theory and practice. First, by using a combination of resource drain (Edwards and Rothbard 2000) and social cognitive theory (Bandura 1991) as a guiding framework, we offer an explanation as to why parent–child interactions mediate parent work predictors and child outcomes. Specifically, the results suggest perceptions of support may be learned through developmental feedback from others (in the form of parent–child interactive activities). Furthermore, support may serve as a form of feedback from the self, thereby contributing to the development of positive CSE. By specifying underlying psychological learning mechanisms using social cognitive theory, we provide clarity to these relationships and are able to define clear future questions to build on theory. For example, social cognitive theory suggests learning is influenced by similarity between the individual providing feedback and the learner (Bandura 1986). Applied to the current study, it may be that the relationship between parent–child interaction frequency and support or CSE outcomes is moderated by the extent that a child perceives him/herself as similar to his or her mother or father. Investigating this hypothesis may also explain why findings show mixed results when comparing the influence of mothers and fathers on child outcomes (Perry-Jenkins and MacDermid 2012), as parent–child perceived similarity may not solely be based on sex.

Second, our findings contribute to accumulated understanding of how positive CSE develops (Johnson et al. 2008), namely through engagement in activities with and support from parents during adolescent development. To our knowledge, researchers have yet to study CSE as an outcome, largely due to its conceptualization as a stable trait that predicts work outcomes (Chang et al. 2012; Johnson et al. 2008). Our study shows adolescent CSE relates to social support and parent–child activities, suggesting CSE may be malleable and can be learned through feedback from the self and others. Further, we highlight that 9.1 % of the variance in adolescent CSE was explained by the model, which is notable in light of CSE's traditional conceptualization as a stable variable.

Third, we overcome methodological limitations of previous work examining the relationship between parent work-related resource drain and parent–child interactive activities by testing this relationship with a novel multi-source sample. Previous work has been primarily been conducted using Dutch samples and based solely on parent reports (Roeters et al. 2009, 2010, 2012), whereas our work demonstrates the relationships using a U.S. sample and included reports from the child. We also extend previous research by showing the relationship between resource drain and parent–child interactive activities applies to not only young children (e.g., Roeters et al. 2009), but also to adolescents.

Fourth, our study has implications for organizations seeking to manage or improve worker behaviors and attitudes. Our results indicate parent workplace experiences matter for parent-adolescent relationships and adolescent well-being, particularly for fathers. Child well-being is an organizational concern due to its relationship with worker outcomes such as absence, commitment, withdrawal, and performance (Major et al. 2004). Thus, our study suggests organizations concerned about such worker behaviors and attitudes should be wary about demanding excess work hours from their employees due to the potential to indirectly influence child health. Organizational leaders may consider job redesign or supervisor training as a means of reducing worker time and energy demands, as supervisor support and control are robust predictors of low work-family conflict (Allen 2012). In support, recent intervention results reveal increasing worker scheduling control and family supportive supervision increases parent–child time (Davis et al. 2015) and improves adolescent sleep latency, night-to-night variability in sleep duration, and sleep quality (McHale et al. 2015).

Finally, our results regarding the differential relationships for mothers and fathers in combination with the mixed results found in previous research demonstrate the interplay between parent and child gender in the work-family interface is complex. Conceptual precision and strong theory are necessary to extend this line of research and identify boundary conditions for the relationship between parent work conditions and child outcomes. By focusing on a specific child age group (adolescents), type of resource drain

(time and energy), type of activity (routine and interactive), type of support (parental emotional), and well-being outcome (CSE), we clarify and replicate some of these previous findings, while delineating a specific process that explains how and why these outcomes are related. Our results buttress the finding that time resource drain is negatively related to child outcomes of parent–child interactive activities (Roeters et al. 2009) and support (Galambos et al. 1995), particularly for fathers. This also aligns with studies showing that fathers' time with their children is most often spent on interactive activities (Offer and Schneider 2011). Consequently, an increase in fathers' work hours most likely detracts from interactive activities.

Our study results also stand in contrast to similar published studies. For example, Crouter and colleagues (2001) found no relationship between father work hour overload and parent-adolescent conflict. It may therefore be that work-related time and energy depletion does not detract from all adolescent interactions, only interactions that require substantial time and energy, such as interactive activities. Bass et al. (2009) also found no differences between mothers and fathers when examining work time and job demands as antecedents to interactive activities. However, their sample differed from the current study in that it focused on non-professional couples with young children under the age of 10. Because young children require more time and attention in comparison to adolescent children, fathers of young children may be less willing or be able to let work-related resource drain interfere with parent–child interactive activities. Thus, patterns of relationships for fathers of young children are similar to mothers who likewise preserve parent–child interactive time in the face of resource drain. Continuing to articulate this complexity is a much-needed next step in the work-family field, ripe (and arguably overdue) for theory development and meta-analytic investigation.

Limitations and Future Research

Although our data set has several methodological strengths, it also has some limitations. Data were collected using cross-sectional surveys from parents and their adolescent children. Although the directional relationships investigated in the current study are supported by theory, the cross-sectional design does not allow us to infer prediction or causality. Future research adopting a combination of longitudinal and experience sampling designs would help solidify the test temporal relationships among the study variables. Conceptually, the resource drain process is likely to occur as an episodic daily phenomenon, but adolescent self-concept development is likely to occur over an extended period of time. Daily resource drain relationships from work hours and fatigue through parent–child interactive activities to support should therefore contribute to long-term development of CSE.

A sample size of 151 families is a relatively small, especially given the complex mediation and moderation analyses carried out in the current study. A post hoc power analysis using Monte Carlo simulation in Mplus (Muthén and Muthén 2002) showed the chance of detecting a significant effect ranged from .066 to .830 for direct hypothesized paths, with an average power of .352. Power for detecting indirect effects was smaller (.305 or less). Limited power may therefore be an explanation for the non-significant findings in our study.

Some of the measures used in the study were less than ideal. For example, work hours was measured on an ordinal scale which may truncate variance and downwardly bias observed relationships. However, the correlations between work hours and other study variables are comparable to those of other studies (e.g., Milkie et al. 2010; Roeters et al. 2009). Further, our pattern of correlations is consistent with expectations (e.g., work hours and work fatigue are moderately, positively correlated). As a second example, our parent–child activity measures do not contain all possible relevant parent–child activities. Previous work includes additional items to capture interactive parent–child activities (e.g., walking and biking, Roeters et al. 2009) and routine parent–child activities (e.g., feeding or bathing, Milkie et al. 2010). Our activity measures are both conceptually and empirically supported in terms of content and psychometric validity, the expected relationship patterns emerged for parent–child activities, and parent–child activity relationships are similar to previous work. Thus, we are confident that our measurement is a suitable operationalization of parent–child activities despite this deficiency. Future research might include more comprehensive measures of interactive activities or examine different types of activities (e.g., educational activities, Cho and Allen 2012).

Our study is among the first to study CSE as an outcome, rather than as an antecedent or as a moderator (Chang et al. 2012). This may be due to the traditional conceptualization of CSE as a trait-like disposition, compounded by a lack of testing this assumption empirically (Johnson et al. 2008). Given research showing traits such as personality are malleable (Roberts et al. 2008), we would expect CSE is similarly amenable to change and development over time. Future research should continue to explore when and how CSE develops and the factors that influence individuals' CSE. Our study suggests the crossover of parent work characteristics to CSE via parent–child interactions may be a fruitful starting point for this research. For example, parents who experience high-stress working conditions may engage in behaviors that negatively impact parent–child relationships, such as social undermining or avoidant parenting, resulting in decreased adolescent CSE.

Finally, our study draws attention to the importance of distinguishing between different types of parent–child activities, namely routine and interactive activities. Although past research has made this distinction (e.g., Cho and Allen 2012; Milkie et al. 2010), we highlight the fact that different types of activities may be more important in explaining the link between parent work characteristics and child well-being. Future research should continue looking at specific types of activities and investigate possible boundary conditions that may change the importance of activities for explaining the relationship between parent working conditions and adolescent outcomes. For example, the value adolescents place on such activities or parents' beliefs about the importance of different types of activities may alter their importance as explanatory mechanisms in the crossover process.

Conclusion

In order to better understand the process through which parent work conditions relate to adolescents' well-being, we developed and tested a complex conceptual model of serial mediating mechanisms. Our results contribute to a pertinent, yet poorly illuminated topic in the work-family literature. Importantly, the current study adds clarity and knowledge regarding psychological mechanisms that explain the relationship between parent work conditions and outcomes by employing the combined framework of resource drain and social cognitive theory. Results provide both empirical and theoretical directions for future research intended to further our understanding of when and how parents' work conditions relate to children's well-being, a topic important to families and the organizations in which they are employed.

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References

Allen, T. D. (2012). The work-family interface. In S. W. J. Kozlowski (Ed.), *Oxford handbook of industrial and organizational psychology* (pp. 1163–1198). New York: Oxford University Press.

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review, 84*, 191–215.

Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice-Hall Inc.

Bandura, A. (1991). Social cognitive theory of self-regulation. *Organizational Behavior and Human Decision Processes, 50*, 248–287.

Barling, J., Zacharatos, A., & Hepburn, C. G. (1999). Parents' job insecurity affects children's academic performance through cognitive difficulties. *Journal of Applied Psychology, 84*, 437–444.

Bass, B. L., Butler, A. B., Grzywacz, J. G., & Linney, K. D. (2009). Do job demands undermine parenting? A daily analysis of spillover and crossover effects. *Family Relations, 58*, 201–215.

Beehr, T. A., & McGrath, J. E. (1992). Social support, occupational stress and anxiety. *Anxiety, Stress, and Coping, 5*, 7–19.

Bianchi, S. M., & Milkie, M. A. (2010). Work and family research in the first decade of the 21st century. *Journal of Marriage and the Family, 72*, 705–725.

Bianchi, S., Wight, V., & Raley, S. (2005). *Maternal employment and family caregiving: Rethinking time with children in the ATUS*. Paper presented for the ATUS Early Results Conference.

Bono, J. E., & Judge, T. A. (2003). Core self-evaluations: A review of the trait and its role in job satisfaction and job performance. *European Journal of Personality, 17*, 5–18.

Brooks-Gunn, J., Han, W., & Waldfogel, J. (2002). Maternal employment and child cognitive outcomes in the first three years of life: The NICHD study of early child care. *Child Development, 73*, 1052–1072.

Bryant, W. K., & Zick, C. D. (1996). An examination of parent-child shared time. *Journal of Marriage and the Family, 58*, 227–237.

Carter, C. (2013). Children's education not affected by mothers who go back to work. *The Telegraph*. Retrieved from http://www.telegraph.co.uk/education/10112213/Childrens-education-not-affected-by-mothers-who-go-back-to-work.html.

Caspi, A., & Roberts, B. W. (2001). Personality development across the life course: The argument for change and continuity. *Psychological Inquiry, 12*, 49–66.

Catalyst. (2012). Working parents. Retrieved from http://www.catalyst.org/knowledge/working-parents.

Chang, C., Ferris, D., Johnson, R. E., Rosen, C. C., & Tan, J. A. (2012). Core self-evaluations: A review and evaluation of the literature. *Journal of Management, 38*, 81–128.

Cho, E., & Allen, T. D. (2012). Relationship between work interference with family and parent–child interactive behavior: Can guilt help? *Journal of Vocational Behavior, 80*, 276–287.

Cho, E. & Ciancetta, L. (2015). Child outcomes associated with parent work-family experiences. In T. D. Allen & L. T. Eby (Eds.). *Oxford handbook of work and family*. Retrieved from http://www.oxfordhandbooks.com/view/10.1093/oxfordhb/9780199337538.001.0001/oxfordhb-9780199337538-e-12?rskey=3HYQZQ&result=1.

Cohen, S., & Syme, S. L. (1985). Issues in the study and application of social support. *Social Support and Health, 3*, 3–22.

Cohen, S., & Wills, T. A. (1985). Stress, social support, and the buffering hypothesis. *Psychological Bulletin, 98*, 310–357.

Crouter, A. C., & Bumpus, M. F. (2001). Linking parents' work stress to children's and adolescents' psychological adjustment. *Current Directions in Psychological Science, 10*, 156–159.

Crouter, A. C., Bumpus, M. F., Maguire, M. C., & McHale, S. M. (1999). Linking parents' work pressure and adolescents' well being: Insights into dynamics in dual earner families. *Developmental Psychology, 35*, 1453–1461.

Davis, K. D., Lawson, K. M., Almeida, D. M., Kelly, E. L., King, R. B., Hammer, L., & McHale, S. M. (2015). Parents' daily time with their children: A workplace intervention. *Pediatrics, 135*, 875–882.

Deegan, J. (1978). On the occurrence of standardized regression coefficients greater than one. *Educational and Psychological Measurement, 38*, 873–888.

Edwards, J. R., & Lambert, L. S. (2007). Methods for integrating moderation and mediation: a general analytical framework using moderated path analysis. *Psychological Methods, 12*, 1–22.

Edwards, J. R., & Rothbard, N. P. (2000). Mechanisms linking work and family: Clarifying the relationship between work and family constructs. *Academy of Management Review, 25*, 178–199.

Estes, S. (2004). How are family-responsive workplace arrangements family friendly? Employer accommodations, parenting, and children's socioemotional well-being. *The Sociological Quarterly, 45*, 637–661.

Galambos, N. L., Sears, H. A., Almeida, D. M., & Kolaric, G. C. (1995). Parents' work overload and problem behavior in young adolescents. *Journal of Research on Adolescence, 5*, 201–223.

Gecas, V., & Schwalbe, M. L. (1986). Parental behavior and adolescent self-esteem. *Journal of Marriage and the Family, 48*, 37–46.

Greenhaus, J. H., & Beutell, N. J. (1985). Sources of conflict between work and family roles. *Academy of Management Review, 10*, 76–88.

Harrington, B., Van Deusen, F., & Ladge, J. (2010). *The new dad: Exploring fatherhood within a career context*. Boston: Boston College Center for Work and Family.

Helsen, M., Vollebergh, W., & Meeus, W. (2000). Social support from parents and friends and emotional problems in adolescence. *Journal of Youth and Adolescence, 29*, 319–335.

Hirschi, A. (2011). Vocational identity as a mediator of the relationship between core self-evaluations and life and job satisfaction. *Applied Psychology: An International Review, 60*, 622–644.

Hoffman, M. A., Ushpiz, V., & Levy-Shiff, R. (1988). Social support and self-esteem in adolescence. *Journal of Youth and Adolescence, 17*, 307–316.

Johnson, R. C., & Allen, T. D. (2013). Examining the links between employed mothers' work characteristics, physical activity, and child health. *Journal of Applied Psychology, 98*, 148–157.

Johnson, R. E., Rosen, C. C., & Levy, P. E. (2008). Getting to the core of core self-evaluation: A review and recommendations. *Journal of Organizational Behavior, 29*, 391–413.

Judge, T. A. (2009). Core self-evaluations and work success. *Current Directions in Psychological Science, 18*, 58–62.

Judge, T. A., & Bono, J. E. (2001). Relationship of core self-evaluations traits—self-esteem, generalized self-efficacy, locus of control, and emotional stability—with job satisfaction and job performance: A meta-analysis. *Journal of Applied Psychology, 86*, 80–92.

Judge, T. A., Bono, J. E., & Locke, E. A. (2000). Personality and job satisfaction: the mediating role of job characteristics. *Journal of Applied Psychology, 85*, 237–249.

Judge, T. A., Erez, A., Bono, J. E., & Thoresen, C. J. (2002). Are measures of self-esteem, neuroticism, locus of control, and generalized self-efficacy indicators of a common core construct? *Journal of Personality and Social Psychology, 83*, 693–710.

Judge, T. A., Locke, E. A., & Durham, C. C. (1997). The dispositional causes of job satisfaction: A core evaluations approach. *Research in Organizational Behavior, 19*, 151–188.

Judge, T. A., Locke, E. A., Durham, C. C., & Kluger, A. N. (1998). Dispositional effects on job and life satisfaction: The role of core evaluations. *Journal of Applied Psychology, 83*, 17–34.

Koumoundourou, G., Tsaousis, I., & Kounenou, K. (2011). Parental influences on Greek adolescents' career decision-making difficulties: The mediating role of core self-evaluations. *Journal of Career Assessment, 19*, 165–182.

Lam, C. B., McHale, S. M., & Crouter, A. C. (2012). Parent–child shared time from middle childhood to late adolescence: Developmental course and adjustment correlates. *Child Development, 83*, 2089–2103.

MacEwen, K. E., & Barling, J. (1991). Effects of maternal employment experiences on children's behavior via mood, cognitive difficulties, and parenting behavior. *Journal of Marriage and the Family, 53*, 635–644.

Major, D. A., Cardenas, R. A., & Allard, C. B. (2004). Child health: A legitimate business concern. *Journal of Occupational Health Psychology, 9*, 306–321.

Masterson, C. R., & Hoobler, J. M. (2014). Care and career: A family identity-based typology of dual-earner couples. *Journal of Organizational Behavior, 36*, 75–93.

McHale, S. M., Davis, K. D., Green, K., Casper, L., Kan, M. L., Kelly, E. L., &… Okechukwu, C. (2015). Effects of a workplace intervention on parent–child relationships. *Journal of Child and Family Studies*, 1–9. doi:10.1007/s10826-015-0254-z.

Milkie, M. A., Kendig, S. M., Nomaguchi, K. M., & Denny, K. E. (2010). Time with children, children's well-being, and work-family balance among employed parents. *Journal of Marriage and Family, 72*, 1329–1343.

Mitchell, T. R., Holtom, B. C., Lee, T. W., Sablynski, C. J., & Erez, M. (2001). Why people stay: Using job embeddedness to predict voluntary turnover. *Academy of Management Journal, 44*, 1102–1121.

Muthén, L. K., & Muthén, B. O. (2002). How to use a Monte carlo study to decide on sample size and determine power. *Structural Equation Modeling, 9*, 599–620.

Muthén, L. K., & Muthén, B. O. (2011). *Mplus user's guide* (6th ed.). Los Angeles, CA: Muthén & Muthén.

Offer, S., & Schneider, B. (2011). Revisiting the gender gap in time-use patterns: Multitasking and well-being among mothers and fathers in dual-earner families. *American Sociological Review, 76*, 809–833.

Perry-Jenkins, M., & MacDermid, S. (2012). Work and family through time and space: Revisiting old themes and charting new directions. In G. W. Peterson & K. R. Bush (Eds.), *The Handbook of Marriage and the Family* (pp. 549–572). New York, NY: Springer Publishing Company.

Preacher, K. J., Rucker, D. D., & Hayes, A. F. (2007). Addressing moderated mediation hypotheses: Theory, methods, and prescriptions. *Multivariate Behavioral Research, 42*, 185–227.

Roberts, B. W., Wood, D., & Caspi, A. (2008). The development of personality traits in adulthood. In O. P. John, R. W. Robins, & L. A. Pervin (Eds.), *Handbook of personality: Theory and research* (3rd ed., pp. 375–398). New York, NY: Guilford Press.

Roeters, A., Van Der Lippe, T., & Kluwer, E. S. (2009). Parental work demands and the frequency of child-related routine and interactive activities. *Journal of Marriage and Family, 71*, 1193–1204.

Roeters, A., Van Der Lippe, T., & Kluwer, E. S. (2010). Work characteristics and parent-child relationship quality: The mediating role of temporal involvement. *Journal of Marriage and Family, 72*, 1317–1328.

Roeters, A., Van der Lippe, T., Kluwer, E., & Raub, W. (2012). Parental work characteristics and time with children: The moderating effects of parent's gender and children's age. *International Sociology, 27*, 846–863.

Rogers, M. E., & Creed, P. A. (2011). A longitudinal examination of adolescent career planning and exploration using a social cognitive career theory framework. *Journal of Adolescence, 34*, 163–172.

Schneider, B., & Waite, L. J. (2008). The 500 Family Study [Data set]. Retrieved from http://www.icpsr.umich.edu/icpsrweb/ICPSR/studies/4549.

Scott, B. A., & Judge, T. A. (2009). The popularity contest at work: Who wins, why, and what do they receive? *Journal of Applied Psychology, 94*, 20–33.

Stewart, W., & Barling, J. (1996). Fathers' work experiences effect children's behaviors via job-related affect and parenting behaviors. *Journal of Organizational Behavior, 17*, 221–232.

ten Brummelhuis, L. L., & Bakker, A. B. (2012). A resource perspective on the work–home interface: The work–home resources model. *American Psychologist, 67*, 545–556.

Williams, L. J., Edwards, J. R., & Vandenberg, R. J. (2003). Recent advances in causal modeling methods for organizational and management research. *Journal of Management, 29*, 903–936.