RESEARCH REPORT

Examining the Links Between Employed Mothers’ Work Characteristics, Physical Activity, and Child Health

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The present study tested a process model through which the strain-based (job control and role ambiguity) and time-based (work hours) job demands of employed mothers relate to child health via child modeling of mother’s physical activity. Support was found for a model of these relationships using dyadic mother–child data (N = 359) from a large, multi-wave nationwide data set and job demands data from the Occupational Information Network (O*Net). Theoretical and practical implications, as well as future research directions, are also discussed.

Keywords: job demands, work-family, maternal employment, exercise

A large body of research has documented the numerous ways in which work and family roles are interconnected yielding insights important to organizations, families, and society (Edwards & Rothbard, 2000; Hammer & Zimmerman, 2011). Although engagement in multiple roles can be beneficial (Greenhaus & Powell, 2006), time and energy expended as a function of engagement in one life domain can deplete these resources, which are then unavailable for use in other life domains (e.g., Small & Riley, 1990). The consequences associated with resource depletion due to job demands include impaired employee and family health. One compelling example of the connection between work and family health is recent research that has linked maternal employment with childhood obesity (Pinot de Moira, Power, & Li, 2010).

In an effort to better understand the mechanisms that link maternal work and child health outcomes, we develop and test a model investigating the process by which maternal job demands indirectly influence child health via modeled health behaviors. Previous research suggests that health behaviors play an integral role in connecting the work environment to health outcomes (Stetoe, 1991); however, many important health behaviors such as physical activity have been given limited attention by organizational scholars. In addition to a reduction in on-the-job physical activity (World Health Organization, 2003), the numerous job demands employees face day-to-day (e.g., time pressures, high workload) and the amount of time spent at work may also influence whether employees engage in healthy behaviors, such as physical activity, while they are not at work (Greenhaus, Allen, & Spector, 2006).

Accordingly, the objective of the current study is to develop and test a three-stage process model that explores the indirect effect of maternal job demands on child health. Figure 1 presents the hypothesized model (Model 1) linking mothers’ strain-based (role ambiguity and decision latitude) and time-based (hours worked) job demands to their own physical activity via resource drain, which relates to their child’s physical activity via modeling, and ultimately impacts child health. Although we believe the model is applicable to both employed mothers and fathers, the current study is limited to employed mothers and their children.

Our study makes several unique contributions. Conceptualizing and testing a model that links work-related factors to child health addresses a key gap in the literature. Eby, Casper, Lockwood, Bordeaux, and Brinley (2005) found that of over 730 criteria examined in work and family studies from 1980 to 2002, only 1.4% were child-related. This oversight is critical as child health is a relevant consideration for organizations due to the implications that sick children have for employer health care costs and lost parental time at work (e.g., Major, Cardenas, & Allard, 2004). This is also vital in that the children of today are the workforce of tomorrow. Research shows that inactivity in childhood relates to poor health in adulthood after controlling for a range of other health and socioeconomic factors (Hancox, Milne, & Poulton, 2004). These findings highlight the long-term effects of childhood health behaviors and suggest that if children continue unhealthy patterns learned in childhood (and influenced by parent’s work), their poor health could follow them as adults into the workforce. By investigating the theoretically derived behavioral mechanisms...
that help explain the link between work and child health, we contribute to a better understanding of why mother’s work relates to child health and extend the work-family literature. The focus on behavior is also important from an applied perspective. Because behavior is malleable, there is an opportunity for education and awareness to make a difference.

Our study also has multiple methodological strengths. First, the data come from a nationally representative sample. Based on Casper, Eby, Bordeaux, Lockwood, and Lambert’s (2007) methodological review, existing work and family research consists mainly of managerial and professional samples that often lack ethnic and socio-economic diversity. Second, the study data was collected at multiple points across time. The use of data collected over time affords the ability to rule out alternative explanations for relationships in the data, such as transient mood effects (e.g., Spector, 1994). Third, the model is analyzed using data from multiple sources including employees and their children, as well as data obtained from a national occupation database (Occupational Information Network [O*Net]) based on the mothers’ occupations. Taken together, the nationally representative multi-wave sample and multi-source objective and subjective data make the current study a novel and important contribution to the organizational work and family literature. Rationale for each of the proposed mechanisms in our model is provided below.

**Job Demands and Health Behavior**

Karasek’s (1979) job-strain model is useful in characterizing the way in which job demands and control can lead to job-related strain, which can impact non-work variables via negative physical and psychological consequences (Butler, Grzywacz, Bass, & Linney, 2005). Commonly studied job demands within the work-family literature include those that are strain-based, such as role ambiguity, and those that are time-based such as hours spent at work. Decision latitude, a combination of skill and decision authority, has been used as a measure of control in the model (Karasek & Theorell, 1990).

As noted previously, health behaviors are a critical link between stressors, such as job demands, and health outcomes (Steptoe, 1991). Researchers have linked psychological stress from work to various negative health behaviors such as alcohol consumption, unhealthy eating behaviors, and tobacco use (Aldana, Sutton, Jacobson, & Quirk, 1996; Hellerstedt & Jeffery, 1997; Ng & Jeffery, 2003; Pak, Olsen, & Mahoney, 2000). Research linking stress from work to physical activity, a critical determinant of overall health, has been less consistent. While job-related stress has been associated with less physical activity in most studies (e.g., Aldana et al., 1996), a positive relationship has been reported in one study (Spillman, 1990), and others have reported no relationship (e.g., Hellerstedt & Jeffery, 1997). Mood disturbances, motivation, available time, and disruptions in routine all play a role in physical activity (Dishman, Sallis, & Orenstein, 1985), and these potential barriers to physical activity are impacted by strain-based and time-based job demands from the work domain.

**Strain-Based Job Demands and Physical Activity**

Strain-based job demands are defined as aspects of the work environment that induce negative psychological states that are then transmitted outside of the workplace in the form of attitudes and behaviors (Voydanoff, 2004, 2005a, 2005b). Strain-based job demands are present in every job and include, for example, role ambiguity and lack of decision latitude (Bellavia & Frone, 2005; Frone, 2003). Role ambiguity occurs when employees are unsure of what is expected of them in their work role. This uncertainty results in the employee spending more time and energy deciphering what they are supposed to do, rather than just completing their work, leading to strain (Boyar, Maertz, Pearson, & Keough, 2003). Lack of decision latitude reflects an employee’s lack of control over performing work duties, where less control results in a work role that is less flexible and malleable by the worker, leading to strain (Karasek & Theorell, 1990).

To date, most of the research linking strain-based job demands and health and health behaviors has been conducted by medical
and public health researchers interested in the etiology of cardio-
vascular disease (e.g., Twisk, Snel, Kemper, & van Mechelen, 1999), resulting in a literature focused on the basic predictive relationships between work variables (such as job demands) and health, but lacking discussions of the potential mechanisms or theoretical rationale for these relationships. One potential mechanism that has received some empirical support is the energy depletion that employees may experience after a day of work. Resource drain theory (Edwards & Rothbard, 2000) posits that domains share finite resources (e.g., energy, time), which when drained in one domain, are not available for use in another (Piotrkowski, 1979; Staines, 1980). In line with the resource drain perspective, we posit that strain-based job demands including work role ambiguity and lack of decision latitude act as resource drains for employees, limiting the amount of energy available for physical activity.

Supporting the notion that job demands deplete resources, specifically energy levels, Weidner, Boughal, Connor, Pieper, and Mendell (1997) found that lack of decision latitude was related to fatigue, meaning that employees with less control over how to complete their work were more tired at the end of the day. Similarly, DeLongis, Coyne, Dakof, Folkman, and Lazarus (1982) found a strong negative relationship between daily “hassles,” including those at work, and overall physical energy levels. It seems that individuals are aware of this energy depletion, as Courneya and Hellsten (1998) found that low energy or being too tired was reported as the second most common barrier to engaging in exercise among their study participants.

Hypothesis 1: Strain-based job demands (role ambiguity and lack of decision latitude) negatively relate to physical activity.

Time-Based Job Demands and Physical Activity

Research shows that one of the most common explanations given for not engaging in physical activity is time scarcity (Dishman et al., 1985). Time-based job demands involve the amount of time an employee spends on the job or the placement of time at work within the 24-hr day, and have a direct effect on physical activity by influencing an individual’s available time, energy, and the ability to create a routine that supports a physical activity regimen (Dishman et al., 1985). Resource drain theory also applies to the relationship between time-based job demands and physical activity. Time is a finite resource, and when expended in the work domain, is no longer available to nonwork domains for activities such as exercise. Along these lines, Sanz-Vergel, Demerouti, Moreno-Jiménez, and Mayo (2010) reported a positive relationship between hours worked and exhaustion, and Nomaguchi and Bianchi (2004) found a negative relationship between hours worked and time spent on physical activity.

Hypothesis 2: Time-based job demands (work hours) negatively relate to physical activity.

Modeling of Parental Health Behavior by Children

Influences on children’s behavior are copious, but parents play a central role. As noted by Greenhaus et al. (2006): “Parents who do not feel that they have time to engage in healthy behaviors such as exercise may unwittingly role model these behaviors, resulting in less physical activity among their children” (p. 87). The literature supports this notion. DiLorenzo, Stucky-Ropp, Vander Wal and Gotham (1998) found that after controlling for various situational and affective variables related to exercise (e.g., exercise efficacy, enjoyment of exercise), children’s physical activity was predicted by the physical activity of their parents. Lau, Quadrel, and Hartman (1990) also found that parent’s physical activity remained a significant predictor of children’s physical activity even after the children left home to attend college. Sallis, Patterson, Buono, Atkins, and Nader (1988) found a moderate degree of aggregation of physical activity among family members, indicating that the family serves a central role in physical activity.

Social cognitive theory (SCT) is a principal mechanism used to examine interpersonal influences on behavior, and focuses on observational learning (Bandura, 1986). Although SCT is based on reciprocal relationships between behavioral, cognitive, and environmental influences on behavior, extant research has focused on ways that parents directly and indirectly influence children’s physical activity by altering the environment (Taylor, Baranowski, & Sallis, 1994). Applying SCT to physical activity, we propose that more active mothers alter the environment by providing more examples of physical activity behavior that can be observed, learned, and modeled by their children. This may occur via direct observation (e.g., “I see Mom jog every morning”), through shared parent–child physical activity (e.g., “Mom and I go for bike rides on Sunday”), or simply via the knowledge that a parent is physically active (e.g., “Mom goes to yoga before picking me up at school”). These mechanisms give children up-close exposure to an activity that they can emulate in everyday life.

Hypothesis 3: Mother’s physical activity positively relates to children’s physical activity.

Children’s Activity and Health

The association between physical activity and child health has been well-established. Physical activity helps obese children lose weight (Epstein, Wing, Koese, & Valoski, 1985), is positively associated with cardiovascular health indicators (Fraser, Phillips, & Harris, 1983; Suter & Hawes, 1993), and relates to good psychological health (Biddle, 1993).

Hypothesis 4: Children’s physical activity positively relates to their overall health.

Although tests of the aforementioned hypotheses are important, these main effects are well-documented in the literature. The importance of the current study rests in investigating the process through which theoretically derived behavioral mechanisms explain the indirect effect of maternal employment on child health. We propose that job demands associated with depleted energy levels and reduced free time impact the availability of resources to engage in non-work activity such as exercise. Child health is an expected indirect consequence of this relationship as children of more active mothers have a greater opportunity to learn and model physical activity behaviors than do children of less active mothers.

Method

The model was tested using data from the Panel Study of Income Dynamics (PSID; Institute for Social Research, Survey
Research Center, University of Michigan, 2010) and the corresponding Child Development Supplement II (CDS). The PSID is a large-scale longitudinal data collection following a representative sample of U.S. families conducted by the Institute for Social Research. The CDS is an additional data collection administered to a smaller sub-sample of PSID participants, and is designed to provide researchers with a comprehensive picture of child development.

**Participant Screening**

The CDS samples a subset of the larger PSID data set, and 2,907 PSID families with completed CDS data were eligible for inclusion in the current study. To be included in the current study, children had to have two employed parents/caregivers with whom they permanently resided (i.e., come from a dual-earner home), be free of developmental or psychological disorders, and not have any limitations to physical activity (as reported by their caregiver). A total of 557 mother–child dyads met these criteria. To maintain independence of the parent-level variables, only one child per family was included in the analysis, further reducing the sample size to 423. One additional dyad was removed as an outlier based on family income being 16.06 standard deviations from the mean. Missing or miscoded job demands data excluded an additional 63 dyads, resulting in a final sample size of 359 mother–child dyads.

Of the 359 children, 192 are male, and 167 are female. Ages of children range from 10 to 18 years ($M = 14.06, SD = 2.56$). Regarding ethnicity, 32% of children self-identified as Caucasian, 18% self-identified as African American, 2% self-identified as Hispanic, 1% self-identified as Asian or Pacific Islander, 1% self-identified as American Indian or Alaskan Native, 2% self-identified as multi-racial, and 44% either did not know or refused to answer. Mothers worked an average of 40 hr per week ($M = 40.09, SD = 11.77$) and held a variety of occupations.

**Timing of Measures**

Variables for the current investigation come from two waves of data collection. The PSID data collected in mid-2001 (Time 1) and the CDS data collected between October 2002 and May 2003 (Time 2) were used. The Time 2 measurement period is long due to the lengthy process involved in collecting data from nearly 3,000 families with each family assessed once during this time frame. Job demands and parent education level data were collected at Time 1. All other variables were collected at Time 2. Income, mother work hours, mother physical activity, and child physical activity items asked participants to respond about the previous 12 months. Given that Time 2 data collection for each family occurred at a point between October 2002 and May 2003, these responses refer to the 12-month period before the Time 2 data collection, between October 2001 and May 2003. Mothers and children were asked to respond about the child’s current health at Time 2. Body mass index (BMI) was also assessed at Time 2.

**Measures**

**Job demands.** Mothers identified their occupation on a list of over 900 from the 2000 Census Index of Industry and Occupation at Time 1. These codes were cross-checked with 2003 PSID data to ensure that mothers were employed in the same occupation for the duration of Time 2 data collection. These occupation codes were used to infer information about the mother’s job demands through the Occupational Information Network (O*Net).

The O*Net is a consistently updated electronic database of characteristics and skill requirements for all occupations within the United States. Data from job incumbents are used to create scores from 0 to 100 on work characteristics for each occupation, including strain-based and time-based job demands. For the strain-based job demand role ambiguity, a score for how structured the job is for the individual worker is provided. For decision latitude, the O*Net provides a score for how much decision making freedom, without supervision, the job allows. For the present study, job demands were coded such that higher values represent more role ambiguity and lower decision latitude. Although the O*Net acquired work characteristics are only inferential, and may not replicate each employee’s real work situation, O*Net derived data are useful as a means to supplement archival data sets that lack important job-related variables (such as the PSID/CDS), thus providing a more complete representation of a person’s life and allowing a broader scope of research questions to be investigated (e.g., Grotto & Lyness, 2010).

Self-reported time-based job demands data were also collected from mothers at Time 2. Mothers reported their average total hours of work per week over the previous 12 months. Given that Time 2 data collection occurred in late 2002 and early 2003, these data represent average weekly work hours during the 12-month period prior to the Time 2 data collection, between October 2001 and May 2003.

**Physical activity.** Physical activity of mothers was assessed with a single item at Time 2: “Please tell me how often you have participated in the following activities within the past 12 months—physical exercise, such as aerobics, running or lifting weights.” Responses were coded on a scale ranging from 1 to 7 (1 = never, 2 = 1 or 2 times, 3 = 3 or 4 times, 4 = once a month, 5 = a few times a month, 6 = once a week, 7 = several times a week). Mothers also reported the physical activity of their children by responding to the same item at Time 2. Given that Time 2 data collection occurred in late 2002 and early 2003, these data represent the frequency of mother and child physical activity during the 12-month period prior to the Time 2 data collection, between October 2001 and May 2003.

**Child health.** Multi-source subjective as well as objective health data were used as indicators of child health. Based on the child’s age, gender, height, and weight collected at Time 2, PSID researchers computed a body mass index (BMI) for each child. Mothers also assessed their child’s health at Time 2 with the item, “In general, would you say [child’s name]’s health is excellent, very good, good, fair, or poor?” Children were also asked to self-report their overall health with the item, “In general how is your health? Would you say excellent, very good, good, fair or poor?” Both items were rated on a 1–5 scale, with higher values indicating better health.

**Demographics.** Formal education was measured in years (e.g., 12 = completed high school) at Time 1 for mothers and their husbands. Values of “0” were recoded as missing. Mean years of formal education for mothers and fathers were combined to reflect family education level. Total annual family income was assessed at Time 2 and reflects the total combined annual income for mothers
and their husbands for the previous 12 months. Child gender was assessed at Time 2 (1 = male, 2 = female).

Results

Table 1 contains descriptive statistics and intercorrelations among study variables.

Proposed Model Testing

Covariance structure analyses using maximum likelihood estimation were conducted using Mplus Version 5.2. Model fit was assessed based on the standardized root-mean-square residual (SRMR), root-mean-square error of approximation (RMSEA), and comparative fit index (CFI). Hu and Bentler (1999) have considered SRMR values less than .08, RMSEA values less than .06, and CFI values greater than .95 indicative of acceptable model fit. Fit indices and descriptions of the various models tested, including measurement models, can be found in Table 2. Controlling for the effects of family education and income and child gender, the hypothesized model (Model 1) fit the sample data well: \( \chi^2(31, N = 359) = 50.45, p < .05; \) SRMR = .04; RMSEA = .04; CFI = .97. Supporting Hypotheses 1, the path between strain-based job demands and mother physical activity was significant and negative (\( \beta = -1.2, p < .05 \)). Hypothesis 2 was also supported in that the path from time-based job demands to mother physical activity was significant and negative (\( \beta = -1.1, p < .05 \)). The path from mother physical activity to child physical activity was significant and, as expected, positive (\( \beta = .28, p < .05 \)), supporting Hypothesis 3. Lastly, the path from child physical activity to child health was significant and positive (\( \beta = .29, p < .05 \)), supporting Hypothesis 4. Standardized path coefficients and \( R^2 \) values for the proposed model are presented in Figure 2.

Alternative Model Testing

In addition to the hypothesized model, two sets of analyses to test alternative models were conducted. First, given prior research posited. Strain-based job demands were negatively correlated with mothers work and physical activity frequency was predicted. The purpose of the present study was to develop and test a three-stage process model that explores the indirect effect of maternal job demands on child health. The proposed model was developed to explain the process through which mother’s job demands relate to child health via child modeling of mother’s physical activity. Mothers with more demanding jobs were expected to exercise less and to have less active children who were in poorer health. Results provide initial support for the model such that the model fit the sample data well, and all proposed paths within the model were significant and in the expected direction.

As part of the overall model, a negative relationship between strain-based job demands and mother’s physical activity frequency was proposed. Strain-based job demands were negatively correlated with moth-

Table 1

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<th>Variable</th>
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<td>-.09</td>
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<td>-.19**</td>
<td>-.18**</td>
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Note. \( N = 345–359 \). PA = physical activity; BMI = body mass index.

*BMI was reverse-scored in model testing only.

*p < .05 (two-tailed).  **p < .01 (two-tailed).
er’s physical activity frequency, and the path weight was significant and, as expected, negative. Similar relationships were expected between time-based job demands and mother’s physical activity frequency. Although the correlation between mother’s work hours and physical activity was not significant, the path in the model was significant and, as expected, negative. These incongruous findings may be due to differences between job levels. For example, professional and managerial jobs are often characterized by long work hours, but also by high decision latitude. The ability to make decisions and structure one’s own time likely allows these women to engage in physical activity despite their demanding work schedules. Thus, the bivariate relationship between mother’s work hours and physical activity may be attenuated, but when strain-based job demands are taken into account in the larger model, the harmful effects of work hours on physical activity are more apparent.

Our results add to the extant literature by showing that job demands relate to women’s frequency of physical activity. This is important in that previous research consistently has found links between job demands and physical activity for men, but similar relationships have not been observed for women (e.g., Hellerstedt & Jeffery, 1997). Previous research has been largely based on self-report, which may have some bearing on the findings. The relationship established in the current study between O*Net derived job demands and mother-reported exercise further demonstrates the usefulness of the O*Net in supplementing existing data sets.

Based on previous research examining the modeling of parental behaviors, specifically physical activity (e.g., DiLorenzo et al., 1998), it was expected that mothers who exercise more would have

![Figure 2](image-url)
children who exercise more. As expected, mothers who exercised more frequently had children who they reported as being more physically active. These relationships are also evident in the model, with a significant positive path between mother and child physical activity. These findings are in line with previous research that has established parents as important determinants of their children’s physical activity. The present study extends the extant literature by showing significant relationships between mothers and their children, where past research has tended to find significant results only for fathers (e.g., Rossow & Rise, 1994).

A positive relationship between child’s physical activity and health was also expected and supported. Children who engaged in physical activity more frequently were in better health as reported by themselves, their mothers, as well as objectively via their body mass index. Lastly, the significant path from time-based job demands to mother physical activity in Model 2 suggests that mothers’ work, specifically time spent at work, impacts child health via mechanisms other than the behavioral modeling of physical activity proposed in Model 1. One important mechanism to explore is food consumption. For example, mothers who work fewer hours and spend more time with their children may help their children make healthier food choices, leading to better child health. Along these lines, Allen, Shockley, and Poteat (2008) found that work-to-family conflict was related to fewer family dinners. Examining the impact of work on other health behaviors is an important avenue for future research.

Implications for Theory and Practice

The current study supports and extends the literature in several key ways. The model tested is based on an integration of theories and fields of study that have traditionally evolved independent of one another. Through such integration the results reveal a behavioral explanation for recent health research that has linked maternal employment and child obesity. In addition, the results lend further support for resource drain theory (Edwards & Rothbard, 2000) in that job demands were negatively related to physical activity for mothers. Demonstrating that this theory can be applied to non-traditional behaviors such as physical activity is a novel contribution and sets the stage for future research examining the varied ways in which work impacts life. The present study also extends the literature by looking past the employee and into the more distal effects that job demands may have on the family. Examination of child health outcomes is rare in the organizational psychology/behavior work and family literature (Eby et al., 2005), and the current study’s significant results highlight the need for more investigation of the links between work and child health.

In addition to building on existing theory, the current study has notable practical implications for organizations, employees, and their families. At the organizational level, rising health care costs and the associated global economic malaise have become top issues for employers. We provide initial evidence that job characteristics, which research already shows relate to employee health (e.g., Aldana et al., 1996), also have implications for child health. Company subsidized medical coverage often includes coverage for employee dependents, thus child health is a direct financial liability for many organizations. In fact, for employees with multiple children, child-related health costs could be higher than those for the employee and partner. For these reasons, organizations might benefit from expanding health and wellness programs and altering policies to target not only employees, but their entire families.
The current study also indicates that both time and strain variables play a role in whether mothers engage in physical activity. Although time scarcity is a common explanation given for not exercising (e.g., Courneya & Hellsten, 1998), the relationship between psychological strain from job demands and physical activity might not be as salient for employees. Employees who are educated about this link could try to restructure their work to make it less demanding, or make a more concerted effort to engage in physical activity to overcome the hampering effects of a demanding job.

Limitations and Future Directions

The current study is one of the first attempts to investigate the behavioral mechanisms that link characteristics of maternal employment with child health, and the results provide some avenues for future research. There are also several limitations inherent to the study that must be considered. The primary limitations relate to the archival data in that several variables were measured with less precision than if original data had been collected specifically for this study. For example, physical activity items asked about the previous 12 months and focused only on a few activities (aerobics, running or lifting weights), thus not capturing the full range of moderate exercise and potentially attenuating the relationships observed. In future research, physical activity could be measured using more detailed time-use diaries, activity checklists, or assessed objectively using pedometers and other electronic activity measurement technologies. It would also be of interest to examine physical activity not only as an outcome, but also as an additional stressor (e.g., “I hate going to the gym, but I should”) or as a stress-reliever (e.g., “I can’t wait to get on a bike and ride away my tough day at work!”).

Measurement fidelity is also a concern regarding inferred job demands data using the O*Net. Although this method of extracting information about a job can contribute to work and family research (e.g., Grotto & Lyness, 2010), it still results in an imputed value based on the experiences of job incumbents, not the study participants. As different employees often perceive job demands differently, we likely did not capture the full range of variability in these demands. Self-report data could have improved the explanatory power of the indicators in the model. Given that the proposed model explains a small amount of variance in mother physical activity frequency, factors outside of the time and strain-based job demands that were investigated in the present study likely play an important role. For example, data on flexibility of mothers’ work schedules were not examined. Long work hours might be less demanding if the employee is able to flexibly plan those hours, thus enabling the scheduling of physical activity. The non-significant bivariate relationship, but significant model path between mother’s work hours and physical activity further illustrates the complex interrelatedness of physical activity determinants. Results also show that family education level plays an important role in physical activity and health. Future research is warranted that investigates how education impacts physical activity, and in general how socio-economic factors influence relationships between work and health.

As previously mentioned, the current study only examines the influence of mother’s job demands. Matching data from fathers were not available and represent an important future research opportunity. With the increase of dual-career families, mothers are no longer the primary caregiver in all households, as more fathers take on child care responsibilities. Complete data from families would allow for interesting explorations of gender as comparisons could be made between same (e.g., mother–daughter) and opposite gender (e.g., father–daughter) parent–child dyads. For a multitude of reasons, some forms of physical activity are more likely to be engaged in by one gender over the other. For example, men play football than do women, and an employed father who plays a lot of football may be engaging in behaviors likely to be modeled by his son, but perhaps not his daughter. However, supplemental analyses did not support child gender as a moderator of the relationships in the proposed model.

From a methodological perspective, future research could employ an experience sampling method (ESM). ESM data at multiple time points throughout each day can provide a clearer picture of how work influences health. For example, employees could be asked about their job demands daily while at work, and then they and their children could fill out a food diary and record their physical activity at the end of the day. These data collection strategies track changes over a series of days and help curtail the retrospective biases common in self-report studies.

The present study tested a theoretical model of the process by which maternal job demands indirectly influence child health via modeled health behaviors. As one of the first attempts to incorporate the work–family, exercise, and child health literatures, results provide preliminary support for the model. Results suggest that further examination of workplace factors and health outcomes for employees and their entire families is a worthwhile endeavor.

References


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