Sloan Network Encyclopedia Entry


Author: Joseph Grzywacz, Wake Forest University- Department of Family & Community Medicine and Jenna Tucker, Wake Forest University- Department of Family & Community Medicine

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Address all correspondence to Joseph G. Grzywacz, Ph.D. Department of Family and Community Medicine, Wake Forest University School of Medicine, Medical Center Boulevard, Winston-Salem, NC 27157-1084. (336) 716-2237 (telephone); (336) 716-3206 (fax). grzywacz@wfubmc.edu

Introduction

This entry focuses on what is known about the physical health implications of experiences at the work-family interface. Our focus on physical health is not intended to elevate the salience of physical health or, conversely, to marginalize the meaning and significance of mental health. Rather, the focus on physical health is simply a tool to avoid the monolithic handling of “health” by acknowledging the unique etiology of somatic and psychiatric disorder, and to narrow the scope of research for this entry. Likewise, the emphasis on “work-family” experiences rather than “work-life” acknowledges that the dominant focus of research to date has been on the former rather than the latter.

In discussing work-family experiences, we emphasize work-family conflict and work-family enrichment. Complete descriptions of work-family conflict and work-family enrichment (and related concepts) are available elsewhere in this encyclopedia (see Work-Family Linkages, Work-Family Role Conflict, Role Stress/Strain and Work-Family) and elsewhere (Frone, 2003; Greenhaus & Beutell, 1985; Greenhaus & Powell, 2006; Grzywacz, Carlson, Kacmar & Wayne, 2007): readers are encouraged to consult these sources for a detailed handling of these concepts. Suffice it say that whereas work-family conflict represents difficulties combining work and family, work-family enrichment represents synergies and benefits from combining work and family. Further, it is important to recognize that both work-family conflict and enrichment are believed to be bi-directional, meaning that work is believed to affect families (negatively and positively) and that family is believed to affect work.
Basic Concepts and Definitions

Physical health is a concept that has substantial intuitive understanding yet remains difficult to conceptualize and measure. As longevity increased over the 20th century, conceptualizations (and subsequent measures) of health shifted from simple unidimensional concepts, such as mortality or life expectancy, to more complex multidimensional concepts (Bergner & Rothman, 1987). The changing conceptualization of “health” paralleled the substantial shifts in the leading causes of death. In the early 20th century acute illnesses such as pneumonia and tuberculosis were the leading causes of death, by contrast at the close of the 20th century chronic conditions such as heart disease and cancer became the leading causes of death. The shift from acute illnesses to chronic conditions and the sequela of prolonged morbidity initiated new models of health that focus on both the presence of specific morbidities as well as the consequences of morbidity.

A thorough review of the conceptual models of physical health is beyond the scope of this entry. Indeed, the complexity of the “health” concept is nicely illustrated in a recent debate on the issue (Brulde, 2000a,b; Nordenfelt, 2000). Nevertheless, it is reasonable to conclude that conceptualizations of physical health have two dominant characterizing features. First, most conceptualizations view physical health as being distinct, albeit reciprocally related, to mental health. The idea that physical health is separate from mental health is empirically supported by research indicating that adults’ common sense of models of health clearly differentiates physical and mental domains of human existence (Lau, 1997). Further, the distinction between physical and mental health is supported by strong evidence indicating that poor mental health, such as clinical depression, contributes to physical disorders (e.g., heart disease; Goldston & Baillie, 2007) and mortality (Cuijpers & Smit, 2002), as well as equally strong evidence implicating physical disorders in the onset of debilitating mental disorders (Kelley-Moore & Ferraro, 2005).

Multidimensionality is a second defining feature of many conceptual models of physical health. Although models may vary in terms of the number of dimensions and the labels given to those dimensions, models frequently suggest that health reflects the optimal functioning of systems at the biological, organ, and individual level. The necessity of this multidimensional view is both conceptual and pragmatic. Conceptually, the multidimensional view of health is deeply steeped in the World Health Organization’s view that health is more than the absence of infirmity. The basic notion is that the absence of disease does not constitute good health, just as manifest disease, in itself, does not constitute individual ill-health. An individual with hypertension is frequently unaware of the condition and, until it manifests in more debilitating disorder (e.g., CHD), the disease may have little discernible impact on the individual. Practically, the different dimensions of health need to be considered separately yet holistically to be of value. For example, although dysregulated cortisol rhythms (e.g., blunted morning rise in cortisol after waking or gradual afternoon decline) and other indicators of compromised organ system function due to chronic stress exposure are interesting phenomenon, they take on greater urgency and utility...
when linked with manifest disease and human suffering as has been the case with notions of allostastic load or cumulative biological wear and tear (McEwen, 1998).

The two defining features of typical models of health are clearly illustrated in the Short-Form 36 (SF-36), an instrument used to measure health-related quality of life. First, consistent with the idea that physical health and mental health are distinct, the SF-36 assesses both physical and mental functioning, reflecting generic physical and mental health respectively. Second, paralleling the notion that physical health is multidimensional, the SF-36 assesses four distinct domains of physical health, including: 1) limitations in physical activity due to physical health problems, 2) limitations in usual role-related activities because of physical health problems, 3) the presence and limitations attributed to pain, and 4) self-evaluation of physical health. Importantly, all four of these dimensions load primarily on the overall measure of physical health, although self-evaluation of physical health has a moderately high loading on mental health (Ware, Kosinski, & Dewey, 2000).

**Importance to Work-Family Studies**

Physical health is a salient issue because it provides a potentially strong lever for advancing work-life initiatives. Although there is a history of linking work-family experiences to health outcomes, it has taken on increased urgency in the past 10 years as health care costs (once again) threaten organizational profitability (Hewitt Associates, 2006). In light of the reality that one-third of working adults feel as though they effectively balance work and family (Keene & Quadagno, 2004), researchers and policy advocates are increasingly questioning the extent to which work-family experiences underlie employee physical health (Halpern, 2005). Experiences at the work-family interface are now seen as a legitimate extension of the “job stress” paradigm (Hammer, Saksvik, Nytro, Torvatn, & Bayazit, 2004). It is believed that research connecting work-family experiences to discrete physical health outcomes would provide practitioners and advocates a stronger and more compelling motive force for encouraging businesses and policy makers to adopt work-life solutions like flexible work arrangements. Indeed, this is among the primary goals of the Work, Family and Health Network, a team of researchers organized by the National Institutes of Health (see, https://www.kpchr.org/workplacenetwork/default.aspx).

**State of the Body of Knowledge**

*Conceptual Foundations*

The literature implicitly or explicitly relies on stress theories to study the putative effects of work-family experiences on physical health outcomes. The classic model, such as that illustrated by Eckenrode and Gore (1990), argues that difficulty combining work and family is a poignant social stressor. Likewise, some models of adult development suggest that effectively managing work and family is among the primary tasks for young and middle-aged adults (Lachman & Boone-James, 1997), and evidence clearly suggests that work- and family-related responsibilities are frequently attended to prior to other
responsibilities (Backett & Davison, 1995). As a poignant stressor, negative work-family experiences are posited to initiate a variety of biological, behavioral, and psychological stress responses, each of which have the potential of promoting morbidity and undermining physical health (Cohen & Herbert, 1996; Taylor, Repetti, & Seeman, 1997).

Although stress models are generally well-equipped to accommodate negative work-family experiences, such as work-family conflict, they are less well suited to explain how positive experiences such as work-family enrichment may contribute to physical health. In fact, there have been few attempts to date to develop elaborate models of how positive experiences, either alone or in connection with negative experiences, may affect physical health outcomes. In one model of mental health, researchers suggested that positive experiences provide a reservoir of resources that can be accessed during challenging times, thereby minimizing the potential health threat of negative work-family experiences (Grzywacz & Bass, 2003). Although this thinking is promising, in part because it is consistent with basic premises in one theory sometimes used in work-family research (i.e., Conservation of Resources theory, for discussion of Conservation of Resources theory in work-life research see, Conservations of Resources Theory, and Conservations of Resources Theory, Update), it is of limited value because it does not give equal attention to both positive and negative experiences at the work-family interface. Rather, it essentially argues that positive experiences only have health implications when they are combined with negative experiences.

The evidence

Consensus is emerging that work-family experiences, particularly work-family conflict, undermines physical health. The authors of one recent meta analysis reported an average correlation of -0.23 between health and both work-to-family and family-to-work conflict (Mesmer-Magnus & Viswesvaran, 2005). A recent qualitative review reported that there is substantial evidence suggesting that work-family experiences, especially work-family conflict, contribute to poor physical health (Greenhaus, Allen & Spector, 2006). Similarly, Frone (2003) concluded that work-to-family and family-to-work conflict are associated with physical health. The results of these quantitative and qualitative reviews provide a seemingly airtight case suggesting that work-family experiences, particularly work-family conflict, are associated with and potentially cause poor physical health.

However, a closer look at the research suggests that the evidence base is filled with conceptual and methodological limitations that undermine the conclusion that the harmonization of work and family experiences contributes to physical health. Importantly, the vast majority of research covered in previous reviews conflates physical and mental health. Mesmer-Magnus and Viswesvaran (2005), for example, combine studies of both physical and mental health in their meta-analysis, and most of the studies included in the meta-analysis focused primarily on indicators of mental health such as depressive symptoms, emotional strain, distress or life satisfaction. Similarly, Greenhaus’s and colleagues (2006)
review included studies whose instruments assessed domains of mental health such as burnout, depressive symptoms, and distress (e.g., Adams & Jex, 1998; Jansen, Kant, Kristensen, & Nijhuis, 2003; Major, Klein, & Ehrhart, 2002). Further research cited by Greenhaus and colleagues with the intention of demonstrating the biological underpinnings of the work-family conflict and health association did not actually measure work-family conflict or any other work-family experience. Although physical and mental health are clearly linked, it is a mistake to collapse them into an undifferentiated mass because it assumes that physical conditions like hypertension have identical etiology to psychiatric conditions like depression. Collapsing physical and mental health outcomes also assumes that the putative mechanisms linking work-family experiences to these discrete outcomes are identical. These are strong and presently unfounded assumptions.

Existing work-family and health research examines only a small range of physical health outcomes. The most common indicator of physical health used in work-family research is self appraised health assessed with single item. Several studies have documented a cross sectional association between elevated work-family conflict and poor self-rated health (Emslie, Hunt, & Macintyre, 2004; Frone, Russell, & Barnes, 1996; Grzywacz, 2000; Winter, Roos, Rahkonen, Martikainen, & Lahelma, 2006; Ala-Mursula et al., 2006), but some have found no association (Allen & Armstrong, 2006). Higher positive spillover between work and family has been associated with better self-appraised health (Grzywacz, 2000). Another body of research has found that elevated work-family conflict is associated with more physical symptoms (Emslie et al., 2004; Frone, Russell, & Cooper, 1995; Lapierre & Allen, 2006; Mauno, Kinnunen, & Ruokolainen, 2006; Hammer et al., 2004; Netemeyer, Boles, & McMurrian, 1996).

Although compelling and consistent with the notion that work-family experiences may affect physical health, the results of research focused on self-appraised health and physical symptoms are difficult to interpret. It is not clear whether work-family experiences are associated with physical health or mental health because self-appraised health loads strongly on both physical and mental functioning (Ware, Kosinski, & Dewey, 2000). Indeed, although general self-appraised health is considered a valid marker of physical health, in part because it is a better predictor of subsequent mortality than physician diagnosis (Franks, Gold, & Fiscella, 2003; Gold, Franks, & Erickson, 1996; Idler & Angel, 1990), it has also been characterized as an indicator of satisfaction with physical health rather than an indicator of physical health status per se (Siegler, 1989). Likewise, although physical symptoms appear to measure physical health, items frequently used in symptom inventories are contained in instruments used to assess physical manifestations of psychological distress or somatization (e.g., Derogatis, Rickels, & Rock, 1976; Spitzer, Kroenke, & Williams, 1999). Thus, although researchers intended to measure physical health, interpreting results is ambiguous because it is unclear if the selected instruments assessed physical or mental health.

There is some research linking work-family experiences to unambiguous indicators of physical health. Frone and colleagues (1997), for example, demonstrated that family-to-work conflict predicted the
onset of new cases of hypertension over a four-year period. Researchers have documented associations between co-occurring physical conditions (e.g., having both hypertension and diabetes) with elevated work-family conflict (Allen & Armstrong, 2006; Grzywacz, 2000) and lower levels of positive spillover from family to work (Grzywacz, 2000). Poor physical functioning, assessed using the SF-36, has been associated with high levels of both work-to-family and family-to-work conflict, and further analyses suggested that work-family conflict partially accounted for socioeconomic differences in poor health (Sekine, Chandola, Martikainen, Marmot, & Kagamimori, 2006). Work-family conflict has been associated with greater sickness absence (Jansen et al., 2006) in both cross-sectional and longitudinal studies. Work-to-family conflict has been associated with obesity in one study (Grzywacz, 2000), but not others (Allen & Armstrong, 2006). Thomas and Ganster (1995) found an association between work-family conflict and self-reported total serum cholesterol.

**Holes in the Evidence Base**

Few of the studies linking work-family experiences to physical health have used study designs that allow strong causal inference. Most studies use cross-sectional cohort designs. Although characteristic of the work-family literature in general (Casper, Eby, Bordeaux, Lockwood, & Lambert, 2007), cross-sectional study designs are particularly problematic for studies of physical health because physical health can contribute to greater work-family conflict by making individuals less equipped to effectively manage their work and family lives (Britt & Dawson, 2005). Indeed, only a few studies have linked work-family experiences to physical health outcomes over time. Frone, Russell, and Cooper (1997) were among the first to report that family-to-work conflict predicted changes in health over a 4-year period as well as the onset of new cases of hypertension. Grande and Cropanzano (1999) reported that work-family conflict predicted poorer physical health over a five month period. Jansen and colleagues (2006) noted that elevated work-family conflict predicted greater sickness absence. Most recently, Grzywacz and colleagues (in press) reported that a balanced work-family arrangement, characterized in terms of high work-family facilitation and low work-family conflict, predicted fewer physical symptoms one year later and that the effect of stress exposure on physical health was less strong for individuals with a balanced work-family arrangement.

Another gap in the evidence base linking work-family experiences to physical health is over-reliance on self-report measures obtained through survey or self-administered techniques. A variety of problems result from over-reliance on a particular research design and data collection technique. The most obvious problem is the possibility that observed associations between self-reported physical health and work-family experiences may be due to some systematic difference in reporting style (e.g., pessimistic people have poor appraisals of both their health and their work-family experiences) or some other unobserved variable. MacDermid (2005), recently highlighted the myriad of challenges participants face in answering questions about work-family experiences, and presented a compelling argument suggesting that
indicators of physical health, like cognitive function, may underlie reports of work-family experiences. Challenges such as this raise significant questions about how to interpret findings and draw solid conclusions about the implications of work-family experiences for physical health.

Reliance on self-report instruments also inherently limits the domains of health that can be observed in research. Indicators of biologic malfunction, for example, are difficult to assess via self-report instruments because they may not be discernable to individuals. Although parameters like blood pressure or serum cholesterol can be obtained via self-report (e.g., Thomas & Ganster, 1995), the validity of the measures is challenged by several factors. There is substantial within-person variation in blood pressure and serum cholesterol, so single assessments such as those obtained at a recent doctor visit or health fair and subsequently self-reported on a questionnaire may not be valid. Equally problematic is the possibility that there are systematic work- and family-related differences among individuals who do and do not know their blood pressure or cholesterol values. It seems reasonable to assume, for example, that individuals with inflexible jobs will have more work-family conflict (Jansen et al., 2003; Thomas & Ganster, 1995) and be less likely to know their blood pressure or cholesterol because of greater difficulty scheduling health care visits. Thus, over-reliance on self-report indicators of health undermines a clear understanding of the breadth of the potential health threat of work-family experiences.

Distinct segments of the population are notably missing from research examining the putative effects of work-family experiences on physical health. Although some research has used representative community or population samples (Frone et al., 1995; Frone et al., 1996; Frone et al., 1997; Grzywacz, 2000; Jansen et al., 2006), most research uses convenience samples, or samples limited by industry or organization. These samples provide substantial opportunity to evaluate associations between physical health and work-family experiences among majority members of society (i.e., white, middle-class women and men), but they are poorly equipped to study other segments of society. Little is known about the putative effects of work-family experiences on physical health among racial and ethnic minorities, low-wage non-professional workers (Lambert, 1999), or the socially-marginalized such as undocumented immigrant workers (Grzywacz et al., 2007). Ironically, the very segments of society shouldering a disproportionate burden of poor health, are the very segments of society for which we know very little about the potential health implications of their work-family experiences.

Finally, there is a notable absence of research linking positive work-family experiences to physical health. Although researchers are increasingly recognizing the synergies that may exist between work and family, only one study has examined associations between physical health and positive experiences at the work-family interface (Grzywacz, 2000). There is, however, a growing and compelling body of research suggesting that positive work-family experiences may have more salient effects on mental health than negative experiences. In the only published longitudinal study to data, Hammer and colleagues (Hammer, Cullen, Neal, Sinclair, & Shafiro, 2005) reported that positive spillover between work and family predicted changes in depression. Recognizing the close conceptual and empirical links
between mental and physical health, these results suggest that positive work-family experiences may be important for physical health.

Implications for Practice and Research

The evidence base linking work-family experiences to physical health has meaningful implications for work-life practitioners. Perhaps most importantly, practitioners currently have little evidence upon which to build a health-related business case for work-life initiatives. Although there is clear circumstantial evidence suggesting that work-family experiences may influence worker physical health, there is little supporting empirical evidence. The evidence that does exist is, in our view, insufficient to warrant strong claims that systematic work-life initiatives will result in healthier, better functioning workers. This means that, until the work-life and physical health literature matures, practitioners should build the business case for work-life initiatives on criteria other than physical health (e.g., recruitment advantage, reductions in turnover).

Likewise, the evidence base linking work-family experiences to physical health also has several implications for work-life researchers. First, work-life researchers need to avoid the trap of viewing physical health as a monolithic construct. Just as researchers have lamented the ambiguous over-extension of the “stress” concept and have argued that it has become a meaningless concept (Wheaton, 1994), health also tends to be handled ambiguously. Researchers sometimes make claims about “physical health” based on measures more appropriate for mental health, or on measures capturing only a narrow representation of physical health. Next, work-life researchers need to recognize that distinct dimensions of physical health and discrete morbidities likely have distinct antecedents (although there may be some overlap), and different mechanisms contributing to their manifestation. This suggests, for example, that while work-family conflict may contribute to stress-related diseases through the activation of the hypothalamic-pituitary-adrenal system and subsequent release of cortisol and other biological indicators of stress; however, a biological stress response may have less to do with other dimensions of physical health such as pain activation or aggravation of role-related impairments due to physical health (e.g., level of sickness absence). In short, work-life researchers likely need to refine theories and hypotheses about the physical health-related effects of work-family experiences. Finally, the multidimensional view of physical health highlights salient issues of study design. Whereas some indicators of compromised physical health, such as dysregulated cortisol rhythms or sickness absence, can be viewed within relatively short time horizons, other indicators of physical health, such as manifest morbidity, have long latency periods and multifactorial etiology. Thus, study designs need to accommodate these types of differences among various dimensions of health.
An Agenda for Future Research

Having laid out the state of the literature, including a critical overview of the holes in the literature, we are ideally situated to highlight high-priority areas for future research focused on physical health. There is a pressing need for research using study designs that would allow for making strong causal inferences about the relationship between work-family experiences and physical health. More longitudinal research is needed. Short-term longitudinal studies are needed to examine the effects of work-family experiences on physical health domains with discrete time horizons such as sickness absence, common illnesses like cold or flu, or indicators of biologic or organ system function like cortisol rhythms or ambulatory blood pressure. This type of research may be particularly useful in light of evidence suggesting that work-family experiences may not be chronic; rather, they may wax and wane with regular job and family-related cycles (Grzywacz, Frone, Brewer, & Kovner, 2006; Morehead, 2001; Majomi, Brown, & Crawford, 2003) or they may peak in response to discrete work or family-related events (Butler, Grzywacz, Bass, & Linney, 2005; Ilies et al., 2007). Long-term cohort studies are also needed to evaluate the role of chronic work-family experiences in the onset of specific diseases as well as generic indicators of physical health like physical functioning or quality life-adjusted years. Longitudinal studies such as these will help establish the temporal sequence needed to determine whether work-family experiences contribute to physical health.

Building the case for a causal link between work-family experiences and physical health will require research using a variety of study designs and outcomes. Case-control studies of individuals with manifest disorders such as heart disease or breast cancer would tell us whether chronic exposure to negative work-family experiences and the absence of positive work-family experiences differentiate individuals with disorder from those without. Daily diary studies capturing work-family experiences and indicators of biological or organ system function, such as cortisol rhythms or ambulatory blood pressure, would be invaluable for determining the value of stress models of the effect of work-family conflict on physical health. Similarly, short-term repeated measures studies of individuals with manifest disorder, such as hypertension or diabetes, would be useful for understanding the extent to which work-family experiences affect self-management behaviors and subsequent risk of disease progression or disease-related complications. Studies consistent with these general recommendations would be invaluable for determining the scope of the possible health implications of work-family experiences and delineating the mechanisms by which work-family experiences may contribute to diverse physical health outcomes. Ultimately, experimental interventions such as those currently being piloted by the Work, Family and Health Network sponsored by National Institute of Child Health and Human Development Network (see “presentations” link at https://www.kpchr.org/workplacenetwork/default.aspx) and subsequent research will provide more definitive tests of whether work-family experiences affect physical health.
Work-family researchers need to become facile with a broader range of health outcomes. As alluded above, work-family researchers should incorporate biomonitoring into their study designs, even cross-sectional studies, to document associations between work-family experiences and indicators of biological and organ system functioning. Although they are under constant improvement, there are well described procedures for collecting urine specimens in the field for capturing total cortisol (e.g., Hawk, Dougall, Ursano, & Baum, 2000; Seeman, Singer, Rowe, Horwitz, & McEwen, 1997) as well as techniques for documenting cortisol patterns over time using both urine (e.g., Sluiter, Frings-Dresen, van der Beek, & Meijman, 2001) and saliva (e.g., Steptoe, Siegrist, Kirschbaum, & Marmot, 2004). Likewise, although more difficult to obtain, registered nurses or trained phlebotomists can be sent to the field to collect blood samples to obtain indicators of immune function such as C-reactive protein or fibrinogen (Grossi, Perski, Evengard, Blomkvist, & Orth-Gomer, 2003), and there are well delineated examples for capturing ambulatory blood pressure (e.g., Goldstein, Shapiro, Chicz-DeMet, & Guthrie, 1999; Landsbergis, Schnall, Pickering, Warren, & Schwartz, 2003).

Survey researchers may need to rely more heavily on instruments that focus more exclusively on specific domains of physical health such as the functional status index (Jette, 1987), the sickness impact profile (Bergner, Bobbitt, Carter, & Gilson, 1981), or instruments used to assess specific morbidities such as the Katz hand diagram for assessing possible carpal tunnel syndrome (Katz, Gelberman, Wright, Lew, & Liang, 1994), the modified Oswestry low back pain questionnaire (Fritz & Irrgang, 2001) or the disabilities of the arm, shoulder and hand (DASH) for assessing musculoskeletal impairment in the upper body (Hudak, Amadio, & Bombardier, 1996). By expanding the range of outcomes to capture different dimensions of physical health at the level of the individual (e.g., role-restriction, pain) as well as dysfunction at the organ and biological levels (e.g., dysregulated cortisol patterns, elevated blood pressure), researchers better cover the conceptual domain of physical health and they will be better equipped to determine the breadth of the potential health implications of work-family experiences.

Health claims data also provide a useful avenue for future research, particularly for those doing employer-based research within large organizations. Many large organizations are self-insured thereby creating an opportunity to link objective health indicators (e.g., total office visits, number of prescription medications, new hypertension diagnoses) with data obtained from ongoing research activities like annual employee satisfaction surveys wherein work-family experiences are frequently assessed. There are, of course, challenges to overcome in this type of research design, not the least of which is ensuring individual anonymity. Nonetheless, linking work-family experiences with health claims data would be particularly valuable for informing the business case for better management of employees’ work-family experiences. Further, all of the research discussed above would offer substantial insight into the scope and magnitude of the potential health implications of work-family experiences.

Future research needs to look beyond white middle-class families to study how work-family experiences contribute to the health, and potentially health disparities, of other segments of society. Researchers
need to cast their attention to immigrant Latinos, the single fastest growing segment of the U.S. labor force (Mosisa, 2002). Similarly, very little work-family research has been undertaken with other racial and ethnic minorities including Native Americans, Blacks, and Asian Americans. Systematic research with these and other segments of society will help ensure a comprehensive understanding of the potential health implications of work-family experiences, and it will help ensure that programmatic interventions benefit all workers and their families. Further, such research would contribute to theory development recognizing that conceptions of family responsibilities differ substantially across cultural groups (Aryee, Fields, & Luk, 1999; Spector et al., 2004; Yang, Chen, Choi, & Zou, 2000). Workers in low-wage, non-professional occupations need research attention, in part because these are among the occupations projected to add the greatest number of new jobs (Belman & Golden, 2000; Hecker, 2001), but also because evidence has suggested that work-family experiences may partially account for socioeconomic differences in health (Sekine et al., 2006). However, while an expansion of work-family research to focus on minority and disadvantaged segments of society is needed, it should not occur at the expense of research focused on white professional workers.

Finally, a pressing area for future physical health research is studies that focus on both positive and negative work-family experiences. While it is increasingly clear that positive and negative experiences are distinct, few studies have examined how each may shape physical health (cf. Grzywacz, 2000). However, although research should assess both positive and negative work-family experiences, the primary goal of future research should be to determine how positive and negative experiences operate together in shaping physical health outcomes. Do positive and negative work-family experiences contribute equally and in parallel, albeit converse, ways to physical health, or does one type of experience modify the effect of the other. Broaden and build theory (Fredrickson, 1998), a theory that highlights the distinct role positive and negative emotions play in human evolution and individual development, may be useful in building understanding of how both positive and negative work-family experiences work together in shaping human health. Principals from this theory, such as the minimal ratio of positive to negative experiences necessary for optimal functioning, as well as explanatory mechanisms used in the theory may be particularly instructive for developing comprehensive models of the effect of work-family experiences on physical health. Likewise, propositions related to loss and gain spirals from conservation of resources theory (Hobfoll, 1998) may also be useful in developing a clear understanding of how positive and negative experiences act together in shaping physical health outcomes.

Conclusion

The evidence base linking work-family experiences to physical health is weak. Despite substantial interest in the physical health implications of work-family experiences, and a number of reviews suggesting that work-family experiences contribute to physical health, there are a number of debilitating holes in the literature. Relatively few studies have clearly measured physical health, and those that have
are predominantly cross-sectional in nature. Further, existing studies assess a narrow range of physical health outcomes, they rely almost exclusively on self-report data, and they rely on samples with limited generalizability and overlook complete segments of the work force. Collectively, these limitations suggest that any conclusion that work-family experiences affect physical health must be viewed as tentative.

However, there is compelling theoretical reason to believe that work-family experiences do contribute to physical health, and there is clear evidence suggesting that organizations and social advocates are willing to target work-family experiences as a way of addressing health problems. Therefore, the gaps in the work-family and physical health literature should be viewed as opportunities rather than liabilities. Work-family researchers are encouraged to seize the opportunity by designing studies that allow greater causal inference, that incorporate measures of both positive and negative work-family experiences, and employ measures that unambiguously capture domains of physical health. Researchers are further encouraged to implement these study designs in diverse segments of society as well as various occupational groups. In doing so, researchers will simultaneously advance scientific understanding and provide needed practical information about how and where work-family experiences fit in both organizational and public health practice.

References


The Editorial Board of the Teaching Resources section of the Sloan Work and Family Research Network has prepared a Matrix as a way to locate important work-family topics in the broad area of work-family studies. (More about the Matrix ...).

Note: The domain areas most closely related to the entry’s topic are presented in full color. Other domains, represented in gray, are provided for context.

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**Domain F: Theoretical Underpinnings to All Domains**
About the Matrix

Sloan Work and Family Research Network
Resources for Teaching: Mapping the Work-Family Area of Studies

Introduction

It was appropriate that the members of the Founding Editorial Board of the Resources for Teaching began their work in 2000, for their project represented one of the turning points in the area of work and family studies. This group accepted the challenge of developing resources that could support the efforts of teaching faculty from different disciplines and professional schools to better integrate the work-family body of knowledge into their curricula. The Virtual Think Tank began its work with a vision, a spirit of determination, and sense of civic responsibility to the community of work-family scholars.

A fundamental challenge emerged early in the process. It became clear that before we could design resources that would support the teaching of those topics, we would first need to inventory topics and issues relevant to the work-family area of studies (and begin to distinguish the work-family aspect of these topics from "non work-family" aspects).

The members of the Virtual Think Tank were well aware that surveying the area of work and family studies would be a daunting undertaking. However, we really had no other choice. And so, we began to grapple with the mapping process.

Purpose

1. To develop a preliminary map of the body of knowledge relevant to the work-family area of study that reflects current, "across-the-disciplines" understanding of work-family phenomena.

2. To create a flexible framework (or map) that clarifies the conceptual relationships among the different information domains that comprise the work-family knowledge base.

It is important to understand that this mapping exercise was undertaken as a way to identify and organize the wide range of work-family topics. This project was not intended as a meta-analysis for
determining the empirical relationships between specific variables. Therefore, our map of the workfamily area of study does not include any symbols that might suggest the relationships between specific factors or clusters of factors.

**Process**

The Virtual Think Tank used a 3-step process to create the map of the work-family area of studies.

1. **Key Informants:** The members of the Virtual Think Tank included academics from several different disciplines and professions who have taught and written about work-family studies for years. During the first stage of the mapping process, the Virtual Think Tank functioned as a panel of key informants. Initially, the Panel engaged in a few brainstorming sessions to identify work-family topics that could be addressed in academic courses. The inductive brainstorming sessions initially resulted in the identification of nearly 50 topics.

   Once the preliminary list of topics had been generated, members of the Virtual Think Tank pursued a deductive approach to the identification of work-family issues. Over the course of several conversations, the Virtual Think Tank created a conceptual map that focused on information domains (see Table 1 below).

   The last stage of the mapping process undertaken by the Virtual Think Tank consisted of comparing and adjusting the results of the inductive and deductive processes. The preliminary, reconciled list was used as the first index for the Online Work and Family Encyclopedia.

2. **Literature review:** Members of the project team conducted literature searches to identify writings in which authors attempted to map the work-family area of study or specific domains of this area. The highlights of the literature review will be posted on February 1, 2002 when the First Edition of the Work-Family Encyclopedia will be published.

3. **Peer review:** On October 1, 2001, the Preliminary Mapping of the work-family area of study was posted on the website of the Sloan Work and Family Research Network. The members of the Virtual Think Tank invite work-family leaders to submit suggestions and comments about the Mapping and the List of Work-Family Topics. The Virtual Think Tank will consider the suggestions and, as indicated, will make adjustments in both of these products. Please send your comments to Marcie Pitt-Catsouphes at pittcats@bc.edu
Assumptions

Prior to identifying the different information domains relevant to the work-family area of study, members of the Virtual Think Tank adopted two premises:

1. Our use of the word “family” refers to both traditional and nontraditional families. Therefore, we consider the term “work-family” to be relevant to individuals who might reside by themselves. Many work-family leaders have noted the problematic dimensions of the term “work-family” (see Barnett, 1999). In particular, concern has been expressed that the word “family” continues to connote the married couple family with dependent children, despite the widespread recognition that family structures and relationships continue to be very diverse and often change over time. As a group, we understand the word “family” to refer to relationships characterized by deep caring and commitment that exist over time. We do not limit family relationships to those established by marriage, birth, blood, or shared residency.

2. It is important to examine and measure work-family issues and experiences at many different levels, including: individual, dyadic (e.g., couple relationships, parent-child relationships, caregiver-caretaker relationships), family and other small groups, organizational, community, and societal. Much of the work-family discourse glosses over the fact that the work-family experiences of one person or stakeholder group may, in fact, be different from (and potentially in conflict with) those of another.

Outcomes

We will publish a Working Paper, "Mapping the Work-Family Area of Study," on the Sloan Work and Family Research Network in 2002. In this publication, we will acknowledge the comments and suggestions for improvement sent to us.

Limitations

It is important to understand that the members of the Virtual Think Tank viewed their efforts to map the work-family area of study as a "work in progress." We anticipate that we will periodically review and revise the map as this area of study evolves.

The members of the panel are also cognizant that other scholars may have different conceptualizations of the work-family area of study. We welcome your comments and look forward to public dialogue about this important topic.
Listing of the Information Domains Included in the Map

The members of the Virtual Think Tank wanted to focus their map of work-family issues around the experiences of five principal stakeholder groups:

1. individuals,
2. families,
3. workplaces,
4. communities, and
5. society-at-large.

Each of these stakeholder groups is represented by a row in the Table 1, Information Domain Matrix (below).

**Work-Family Experiences:** The discussions of the members of the Virtual Think Tank began with an identification of some of the salient needs & priorities/problems & concerns of the five principal stakeholder groups. These domains are represented by the cells in Column B of the Information Domain Matrix.

- Individuals' work-family needs & priorities
- Individuals' work-family problems & concerns
- Families' work-family need & priorities
- Families' work-family problems & concerns
- Needs & priorities of workplaces related to work-family issues
- Workplace problems & concerns related to work-family issues
- Needs & priorities of communities related to work-family issues
- Communities' problems & concerns related to work-family issues
- Needs and priorities of society related to work-family issues
- Societal problems & concerns related to work-family issues

**Antecedents:** Next, the Virtual Think Tank identified the primary roots causes and factors that might have either precipitated or affected the work-family experiences of the principal stakeholder groups. These domains are highlighted in Column A of the Information Domain Matrix.

- Individual Antecedents
- Family Antecedents
• Workplace Antecedents
• Community Antecedents
• Societal Antecedents

Covariates: The third set of information domains include factors that moderate the relationships between the antecedents and the work-family experiences of different stakeholder groups (see Column C in Table 1).

• Individual Covariates
• Family Covariates
• Workplace Covariates
• Community Covariates
• Societal Covariates

Decisions and Responses: The responses of the stakeholder groups to different work-family experiences are highlighted in Column D.

• Individual Decision and Responses
• Family Decisions and Responses
• Workplace Decisions and Responses
• Community Decisions and Responses
• Public Sector Decisions and Responses

Outcomes & Impacts: The fifth set of information domains refer to the outcomes and impacts of different work-family issues and experiences on the principal stakeholder groups (see Column E).

• Outcomes & Impacts on Individuals
• Outcomes & Impacts on Families
• Outcomes & Impacts on Workplaces
• Outcomes & Impacts on Communities
• Outcomes & Impacts on Society

Theoretical Foundations: The Virtual Think Tank established a sixth information domain to designate the multi-disciplinary theoretical underpinnings to the work-family area of study (noted as Information Domain F).
Table 1: Matrix of Information Domains (9/30/01)

<table>
<thead>
<tr>
<th>Domain A: Antecedent Descriptives</th>
<th>Domain B: Work-Family Issues and Experiences</th>
<th>Domain C: Covariates</th>
<th>Domain D: Responses to W-F Issues and Experiences</th>
<th>Domain E: Outcomes and Impacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual Antecedents</td>
<td>Individual Experiences: Needs &amp; Priorities; Problems &amp; Concerns</td>
<td>Individual Covariates</td>
<td>Individual Decisions &amp; Responses</td>
<td>Individual Outcomes &amp; Impacts</td>
</tr>
<tr>
<td>Family Antecedents</td>
<td>Family Experiences: Needs &amp; Priorities; Problems &amp; Concerns</td>
<td>Family Covariates</td>
<td>Family Decisions &amp; Responses</td>
<td>Family Outcomes &amp; Impacts</td>
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<tr>
<td>Workplace Antecedents</td>
<td>Workplace Experiences: Needs &amp; Priorities; Problems &amp; Concerns</td>
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<td>Societal Outcomes &amp; Impacts</td>
</tr>
</tbody>
</table>

Domain F: Theoretical Underpinnings to All Domains