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When Hard Times Take a Toll: The Distressing Consequences of Economic Hardship and Life Events within the Family-Work Interface

Marisa Young[1] and Scott Schieman[1]

Abstract

Using two waves of data from a national survey of working Americans (*N* = 1,122), we examine the associations among economic hardship, negative life events, and psychological distress in the context of the family-work interface. Our findings demonstrate that family-to-work conflict mediates the effects of economic hardship and negative events to significant others on distress (net of baseline distress and hardship). Moreover, economic hardship and negative events to significant others moderate the association between family-to-work conflict and distress. While negative events to others exacerbate the positive effect of family-to-work conflict on distress, we find the opposite for economic hardship: The positive association between hardship and distress is weaker at higher levels of family-to-work conflict. These patterns hold across an array of family, work, and sociodemographic conditions. We discuss how these findings refine and extend ideas of the stress process model, including complex predictions related to processes of stress-buffering, resource substitution, and role multiplication.

Keywords

economic hardship, family-work conflict, life events, psychological distress, stress process model

Sociologists who study stress and mental health have identified the deleterious consequences of exposure to multiple stressors, including chronic stressors like economic hardship and more acute, undesirable life events, such as job loss or death of a loved one. Our research examines how individuals experience these stressors within the family-work interface. We focus on economic hardship: a particularly prevalent chronic stressor that has been featured prominently in stress research (Mirowsky and Ross 2003). This is especially relevant given the current economic climate in North America, where the recession and job loss has dramatically affected individuals' financial and personal well-being. In 2007, more than one-quarter of Americans predicted their economic situations would worsen in future years because of declining family income and higher cost of living (Newport 2008). These potent trends highlight the need for systematic research to assess the mental health consequences of economic hardship independently and in combination with other stressful life events.

Our interest in negative life events is motivated by theory and evidence in the stress literature,

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which suggests that stressors do not occur in isolation but often ensue from previous situations, experiences, and events (Pearlin et al. 1981; Pearlin et al. 2005). Unlike chronic strains or stressors, which develop more insidiously and are more pervasive, events usually have a distinct point of onset and offset (Wheaton 1999:283). Undesirable life events may lead to situations with fewer resources, which may increase role conflict (Crouter and Booth 2004) and psychological distress (Mirowsky and Ross 2003).

Consistent with the core propositions of the stress process model (Pearlin 1999), studies have demonstrated the harmful psychological consequences of economic hardship and negative life events separately (Kessler 1997; Mirowsky and Ross 2001) and in combination (Pearlin et al. 1981; Turner and Avison 2003). In an effort to elaborate on and extend these previous findings, we situate these stressors in the context of the family-work interface and focus on one specific chronic stressor, family-to-work conflict (FWC), which is a form of interrole conflict where pressures from the family domain are incompatible with, and restrict activities in, the work domain (Greenhaus and Beutell 1985; Netemeyer, Boles, and McMurrian 1996).[1] We predict that economic hardship and negative life events influence exposure to FWC by creating troublesome thoughts that weigh heavy on peoples' minds when they are on the job. Our study responds to calls for research on stressors in the family and the complexities of their intersection with the work sphere (Clark 2000; Stevens et al. 2007). Thus, we seek to contribute to work-family and mental health literatures by considering economic hardship and negative life events as potential antecedents of FWC. We also assess whether these stressors combine to influence distress.

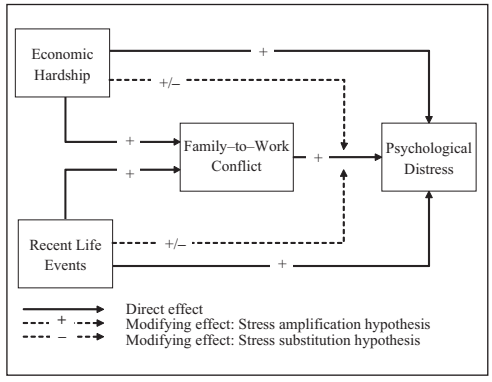

Figure 1. Conceptual Framework of the Direct and Modifying Effects of Stressors on Family-to-Work Conflict (FWC) and Psychological Distress

Note: The solid lines represent the direct effects between variables. The dashed lines indicate the moderating effect of economic hardship and life events on the association between FWC and psychological distress. The positive sign corresponding to the dashed arrow illustrates our stress amplification hypothesis. The negative sign illustrates our stress substitution hypothesis.

BACKGROUND

Exposure to Multiple Stressors: Direct and Mediating Associations

Literature on FWC identifies family-related obligations that are associated with marital, parental, and household responsibilities, such as obligatory time with one's spouse or children, and multiple time demands related to child care and household chores (Bellavia and Frone 2005). Decisions about what to cook for dinner, thoughts about child care arrangements, or phone calls concerning sick children during work hours are examples of family obligations that may intrude upon or conflict with the work domain (Hochschild 1997; Voydanoff 2004). In our study, we take a unique approach to family-work scholarship by evaluating how individuals' financial challenges in the household and stressful life events to self and significant others contribute to and interact with FWC to affect psychological distress. Figure 1 illustrates our conceptual model.

Economic hardship is a chronic form of household stress that generates stressful thoughts about one's ability to pay bills at the end of the month or to satisfy the monetary needs that may spill over into the work domain and contribute to FWC. It threatens security and stability. While previous research has shown a link between individuals' economic circumstances and FWC (see Conger et al. 1990; Crouter and Booth 2004), most of these studies focus on objective financial circumstances (e.g., poverty rates or income; Byron 2005; Stevens et al. 2007). We expand on this prior work by focusing on individuals' perceptions of fiscal strains: the perceived difficulties with paying bills and acquiring basic necessities, such as food, clothing, transportation, housing, and medical care (Pearlin et al. 1981; Ross and Huber 1985). These perceptions of financial strain are useful for analyzing FWC because they tap into individuals' salient concerns in everyday life and are not subject

to externally imposed standards that shape objective measures of financial status.

We also focus on negative life events as possible antecedents of FWC. Negative life events can reduce personal resources that increase susceptibility to secondary stressors and subsequent mental health problems (Kessler 1997; Turner and Avison 2003). A recent divorce or separation, for example, may generate anxiety over legal matters of property or child custody; accidents or injuries may precipitate insurance battles and unforeseen financial costs, which can tax individuals' resources. Worrisome thoughts about these matters may challenge individuals' capacity for adequate time, effort, and concentration in their work roles. Undesired events that happen to significant others may also increase exposure to FWC. Individuals may become distracted at work because of a family member's adversity. These ideas are consistent with the cost-of-caring hypothesis (Kessler and McLeod 1984) and the notion of linked lives (Elder 1995). Both suggest that others' circumstances can influence our own well-being. Although the impact of negative life events has rarely been examined in the family-work context (see Stevens et al. 2007 and Westman and Etzion 2005 for exceptions), we argue that these events increase FWC.

In an effort to articulate possible interrelationships among these stressors, we draw upon ideas from border theory (Clark 2000) and stress process theory (Pearlin et al. 1981). Border theory describes the ways that obligations and expectations of the work domain may permeate the family domain (or vice versa). Work-family borders vary in their degree of flexibility and permeability—two factors that define the extent that aspects of one domain may intrude on the other (Ashforth, Kreiner, and Fugate 2000; Clark 2000). If work borders are flexible and permeable, family-related strains may easily spill over into this domain; the result may be greater FWC. However, the nature of FWC and its distressing consequences may also depend on the particular circumstances in the household or others' stressful experiences. While border theory seems to recognize this possibility, its application has not adequately assessed the independent and joint influences of economic hardship and life events in the context of FWC (Clark 2000).

From stress process theory, we specifically draw upon concepts of primary stressors, secondary stressors, and stress proliferation (Pearlin 1999; Pearlin et al. 2005). These concepts identify the potential interrelationships among stressors and their distressing consequences. Pearlin defines the association between primary and secondary stressors as "stress proliferation," where one stressor creates or exacerbates the effects of additional stressors. Applied here, first and foremost we propose that economic hardship contributes to FWC. Within the household, economic hardship may be associated with more problematic parenting behaviors, marital conflict, and difficulties with children's behavior (Voydanoff 2007). Thus, economic hardship may be the catalyst for stress proliferation that permeates into the work role. Second, negative life events may contribute to FWC independently of hardship (Amato 2000; Voydanoff 1984). We build on previous research by examining whether negative life events challenge individuals' time, energy, and effort in the work role. Collectively, these theoretical and empirical perspectives provide a rationale for our hypothesized direct and mediating associations:

Hypothesis 1. Economic hardship should be positively associated with FWC.

Hypothesis 2. Negative life events to oneself and significant others should be positively associated with FWC.

Hypothesis 3. FWC should mediate the positive associations of economic hardship and negative life events on distress. That is, economic hardship and life events are associated with greater distress because they tend to increase exposure to FWC.

When Stressors Combine: Evaluating a Set of Complex Interaction Effects

In addition to the net and mediating linkages described above, it is plausible that these stressors combine in their influence on distress. To explore this possibility, we propose two alternative hypotheses. First, the stress amplification hypothesis is based upon theory and evidence that one stressor may exacerbate the effect of another by depleting personal and social resources necessary to mitigate the effects of other stressors (Avison 1999; Wheaton 1985). Research has found evidence of stress amplification processes (Menaghan 1991; Serido, Almeida, and Wethington 2004). For example, a study by Serido et al. (2004) shows that chronic stressors exacerbate the positive effect of daily hassles on distress. Menaghan's (1991) research demonstrates that work and family stressors amplify the mental health consequences of one another. Following from these prior findings, we

hypothesize similar effects between FWC and both economic hardship and negative life events.

> *Hypothesis 4a: Stress Amplification Hypothesis*. Economic hardship and negative events to oneself and others should exacerbate the positive association between FWC and distress.

Not all studies, however, support stress amplification patterns (Mirowsky and Ross 2003; Voydanoff 2004). Inconsistent findings of stress amplification motivate our curiosity about this question and lead us to propose an alternative hypothesis: the stress substitution hypothesis. It predicts that the distressing effects of one stressor may substitute for another stressor. Applied here, this predicts a negative interaction effect between FWC and stressors. We acknowledge that this proposition is less intuitive than stress amplification. Indeed, there is little prior theory or evidence to draw upon. Nonetheless, useful concepts and patterns can be gleaned from theories of resource substitution, stress buffering, and role multiplication to support this hypothesis.

Resource substitution theory posits that some resources serve as alternative means to reducing threats (Ross and Mirowsky 1989, 2006). Researchers have applied resource substitution theory to explain gender differences in the psychological benefits of education (Ross and Mirowsky 2006) and the inconsistent benefits of sense of control and social support in attenuating distress (Turner and Noh 1983; Ross and Mirowsky 1989). These studies underscore that while two alternative resources may independently decrease depression, each has a stronger effect when the other resource is at a lower level. When both resources are at higher levels, individuals perceive one resource as more salient, while the overall effect of the other resource is minimized.

In our analyses, we apply the logic of resource substitution theory to evaluate the multiplicative influence of stressors. We propose a possible "ceiling effect" in the influence of stressors; that is, in the context of multiple stressors, the mental health effect of one stressor may substitute for another. The result could yield lower distress levels than would be expected from the additive effect of the two stressors combined.

The notion of stress substitution also speaks to the salience of certain stressors given the presence of others. In cases where economic hardship is high, the experience of FWC may be less relevant because these individuals are concerned instead with basic needs, such as paying bills and buying food—concerns that may override the effect of conflict between family and work domains. From this perspective, the experience of FWC may be less relevant to those with greater financial strains compared with higher-status individuals with fewer economic worries.

Another possibility derives from stress-buffering models, which focus on the different resources and support mechanisms that individuals draw upon when encountering stressors. These resources are purported to reduce the health effects of the stressor (Pearlin 1999). Of particular interest for our analyses is what Wheaton (1985) calls the additive effect stress-buffering model: "An essential feature of this model . . . is the fact that support is dependent on the level of stress. The relationship is positive and thus consistent with the notion of a resource that is mobilized by an increase in stress" (p. 355). The stress-activated resource operates as a suppressor and decreases the adverse effects of the stressor. Applying those ideas to help explain potential associations, it may be that individuals who experience high levels of economic hardship and/or negative life events mobilize resources to reduce the effects of these stressors. Yet, these resources may reduce the effects of other stressors, such as FWC. This perspective provides a rationale for why economic hardship or life events may attenuate the association between FWC and distress: One stressor activates resources that reduce the effects of both stressors.

A final rationale for the stress substitution predictions evolves from role multiplication theory (Marks 1977). This suggests that individuals may generate (rather than exhaust) energy and resources as a consequence of additional roles and any associated stressors (Butler et al. 2005). Here, the combination of family- and work-related stressors may facilitate additional energy and resources that help to diminish the adverse effects of FWC. The expectations and pressures placed upon individuals, including changes due to negative life events or financial pressures from home, may require a

negotiation of work and family borders that ultimately has an overall beneficial impact on individuals' mental health. Collectively, resource substitution, resource mobilization, and role multiplication theories provide different rationales for predicting that the association between FWC and distress might be attenuated by the presence of another stressor. Specifically, when economic hardship is high or negative life events have occurred, the distress associated with FWC may actually be weaker.

Hypothesis 4b: Stress Substitution Hypothesis. Economic hardship and negative life events to self and others may attenuate the positive effects of FWC on distress.

DATA & METHODS

Sample

To test our hypotheses, we analyze data derived from the Work, Stress, and Health survey—a national telephone survey of working adults in the United States. The first wave of interviews of 1,800 adults occurred from February through August of 2005.[2] Eligible participants had to be 18 years of age or older and participating in the paid labor force. Interviews were conducted in English, so participants also had to be sufficiently fluent in order to complete the interview. At Wave 1, we successfully interviewed 71 percent of individuals identified as eligible. Approximately 18 to 20 months after the initial interview, we were able to successfully reinterview 1,286 participants (72% retention). In the present study, we analyze data from both interviews to adjust for the lagged effects of economic hardship and distress. All other measures, however, are taken from the second interview. Questions about FWC were asked only at Wave 2. We also excluded cases with missing values on focal and control measures, which yields a final sample of 1,122 cases for the present analyses. In subsequent analyses we further investigate the impact of attrition on our focal associations. These results were insignificant, which gives us confidence that our findings are unbiased by attrition between waves (results available upon request).

Focal Measures

Psychological distress. At both waves, we use an index of nine items to measure distress; this index has appeared in recently published research and is considered highly reliable (Bird 1999 Mirowsky and Ross 2003). These items are an amalgamation of items from the Center for Epidemiological Studies Depression Scale (Radloff 1977), along with the Twenty-Two Item Screening Score of Psychiatric Symptoms (Langner and Michael 1963). Respondents were asked to report how many days in the past week they felt "tired or run down," "that everything was an effort," "sad," or "anxious or tense," for example. We averaged the items; higher scores reflect greater distress (alpha = .75). We logged the index to reduce the negative skew.

Family-to-work conflict. Items to measure FWC were included only in Wave 2 interviews. We use five items that have appeared widely in surveys (e.g., National Study of the Changing Workforce) and in recently published studies (Netemeyer et al. 1996; Voydanoff 2007): "How often do the demands of your home or family life interfere with your job?"; "How often have you not had enough time for your work because of your family or home life?"; "How often have you not had the energy to do things at work because of your home or family life?"; "How often has home or family life kept you from doing as good a job at work as you could?"; and "How often has your home or family life kept you from concentrating on important things in your job?" Response choices are (1) *never,* (2) *rarely,* (3) *sometimes,* and (4) *frequently*. In responding, participants were asked to think about their current situation in the main job that they worked last week. We averaged the items; higher scores indicate more FWC (alpha = .80).

Economic hardship. At both waves we use a common index of four items to measure economic hardship (Mirowsky and Ross 2001): "During the last year, how often did you . . .": "have trouble paying the bills," "not have enough money to buy food, clothes, or other household goods," "not have enough money to pay for medical care." Response choices are (1) *never,* (2) *rarely,* (3) *sometimes,* and (4) *frequently*. A fourth item asks, "How do your finances usually work out by the end of the month? Do you have (1) *a lot of money left over,* (2) *a little*

money left over, (3) *just enough to make ends meet,* or (4) *not enough to make ends meet*. We averaged the four items to create the index (alpha = .83).

Recent negative life events. We use responses at Wave 2 to assess negative life events. We distinguish events that happened to the respondent from events that happened to someone close to the respondent. Participants were asked if "any of the following happen to [them] or to someone close to [them] (spouse, child, other family member, or a friend, for example) in the past 12 months": (a) an accident or injury, (b) a serious mental or physical illness, (c) victimization, (d) trouble with the law, (e) a divorce or separation, or (f) job loss. These items are adapted from well-known scales in the mental health literature (Turner and Avison 1992). If respondents reported losing their jobs and had not yet found another at the time of the interview, they were excluded from the current analyses since we limit our study to working adults only. Given the few cases that had more than one event to the self, we contrast (0) *no negative events* with (1) *at least one negative event*. By contrast, there was greater variation in events to significant others, so we create a measure that ranges from zero to five or more events.

Family and Work Measures

We use data from Wave 2 for all of the following control measures.

Marital status. We use dummy codes to contrast married (includes common-law and cohabiting) as the reference category compared with the never-married and previously married categories.

Spouse/partner work status. Participants who do not have a working spouse/partner (0) are contrasted with those who have a spouse/partner who is working full-time (1).

Number of children in household. We include measures of the total number of children under the age of 18 in the household and the presence of preschool children. For the latter, those with at least one child under 6 years of age (1) were compared to those without (0).

Housework hours. We assess hours spent on housework in an average week. We divided that value by seven to obtain a daily average number of hours.

Occupation. To assess occupation, we asked participants about the job title of the "main job at which [they] worked last week." This question refers to their main place of employment, that is, the one where participants spend the most time. Using the open-ended information provided, we coded responses into five main categories in accordance with the Bureau of Labor Statistics codes. These include professional (managerial and professional specialty occupations), administrative (technical, sales, and administrative support occupations), service (service occupations), craft (precision production, craft, and repair occupations), and labor (operators or laborers). We use professional as the omitted reference category in all analyses.

Work hours. This assesses total number of hours of paid work in a typical week.

Sociodemographic Control Measures

All sociodemographic control measures are assessed at Wave 2. We use dummy codes for men (0) and women (1). Age is coded in years. For participants' race, we use dummy codes to contrast non-Hispanic white (1) versus all other race/ethnic categories (0). Other categories include Black (15%), Hispanic (7%), Asian (2.2%), and American Indian and First Nations (2.6%). Subsequent analyses suggest no differences in FWC or distress across these subgroups. Education is coded as (1) some high school but did not graduate, (2) high school graduate or GED, (3) specialized vocational training or some college, (4) associate's degree (two-year program), (5), college graduates (BA or BS), and (6) postgraduate–advanced degree (MA, PhD). For household income, we asked the following: "For the complete year of 2006, what was your total household income, including income from all household sources?" We divided income values by 100,000 so that coefficients from analyses were more easily interpretable. If the participant lived alone, we used personal income. For respondents who had initially refused or did not know their household income (9%), we asked a follow-up question that provided broader ranges of income categories: $25,000 or less, $25,000–$50,000, $50,000–$75,000, $75,000–$100,000, $100,000–$125,000, and more than $125,000. Using these responses, we imputed the middle value of each category and include a dummy variable to control for any bias due to missing values.

Table 1. Summary Statistics for All Study Variables (N = 1,122)

	M	*SD*	Range
Focal measures			
Baseline psychological distress	1.834	1.531	0–11.2
Current psychological distress	1.622	1.463	0–13.7
Family-to-work conflict	1.844	.554	1–4
Baseline economic hardship	1.789	.703	1–4
Current economic hardship	1.780	.703	1–4
At least one event to self	.162	–	0–1
Events to others	1.451	1.342	0–5
Control measures			
Never married	.151	–	0–1
Previously married	.214	–	0–1
Married	.635	–	0–1
Spouse/partner works	.493	–	0–1
Number of children	.816	1.098	0–6
Preschool children (present)	.164	–	0–1
Housework per day	2.095	1.714	0–10
Administrative	.378	–	0–1
Service	.141	–	0–1
Craft	.069	–	0–1
Laborer	.081	–	0–1
Professional	.332	–	0–1
Work hours	41.629	14.209	2–110
Women	.593	–	0–1
Household income (median)	62500.00	120256.50	5000–3700000
Age	45.005	12.346	18–88
White	.788	–	0–1
Education	3.782	1.516	1–6

Note: Means for categorical variables represent the percentage of respondents in each category.

Plan of Analysis

Table 1 presents descriptive statistics for the total sample. The analyses presented in Tables 2 and 3 test our hypotheses using ordinary least squares regression techniques. In Table 2, we test the associations among both economic hardship and negative life events with FWC. Models 1 and 2 regress FWC on economic hardship and negative life events to self and others, respectively. Model 3 includes both types of stressors simultaneously, along with family- and work-related conditions as potential mediators. All models control for baseline distress and hardship and for sociodemographic measures. The analyses presented in Table 2 test our first two hypotheses—that economic hardship and life events are associated positively with FWC.

Table 3 tests our hypotheses with psychological distress as the focal dependent variable. Models 1–3 test the hypothesis that FWC mediates the associations between both economic hardship and negative life events with distress. We use a Sobel test to evaluate these mediating links (Sobel 1982). Models 4–6 test our stress proliferation and stress substitution hypotheses (Hypotheses 4a and 4b). Prior to creating interaction terms, we centered the continuous measures to reduce multicollinearity between the interaction coefficient and lower-order terms and to increase the efficiency of the lower-order estimates (Aiken and West 1991). Model 4 tests the interaction between economic hardship and FWC. In Model 5, we test interaction terms for self and others' negative life events with FWC. For purposes of space, we exclude nonsignificant

Table 2. Regression of Family-to-Work Conflict on Focal Measures and Controls (N = 1,122)

	Model 1	Model 2	Model 3
Focal associations			
Current economic hardship	.095**	–	.088**
	(.033)		(.034)
At least one event to self	–	−.021	−.034
		(.044)	(.045)
Events to others	–	.039***	.036**
		(.012)	(.012)
Control measures			
Never married[a]	–	–	−.095
			(.050)
Previously married[a]	–	–	.024
			(.058)
Spouse/partner works	–	–	−.077*
			(.042)
Number of children	–	–	.041*
			(.018)
Preschool children (present)	–	–	.002
			(.049)
Housework per day	–	–	.017
			(.010)
Administrative[b]	–	–	−.073
			(.041)
Service[b]	–	–	−.070
			(.056)
Craft[b]	–	–	−.016
			(.074)
Laborer[b]	–	–	−.038
			(.068)
Work hours	–	–	.004**
			(.001)
Baseline distress (logged)	.191***	.202***	.188***
	(.035)	(.034)	(.035)
Baseline economic hardship	.009	.047**	.007
	(.023)	(.018)	(.023)
Women	−.047	−.056*	−.010
	(.034)	(.034)	(.037)
Household income[c]	−.012	−.017	−.020
	(.017)	(.017)	(.017)
Age	−.003*	−.003*	−.001
	(.001)	(.001)	(.002)
White	.047	.039	.050
	(.040)	(.040)	(.040)
Education	.051***	.047***	.045***
	(.011)	(.011)	(.013)
Constant	1.661	1.607	1.473
	(.049)	(.052)	(.090)
R^2	.074	.076	.12

Note: Unstandardized coefficients are reported, with standard errors in parentheses.
[a]Compared with married.
[b]Compared with professionals.
[c]Household income was divided by 100,000 to present interpretable coefficients.
*p < .05. **p < .01. ***p < .001 (two-tailed test).

Table 3. Regression of Current Psychological Distress (logged) on Focal Measures and Controls (N = 1,122)

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Focal associations						
Current economic hardship	.118***	–	.088***	.095***	.088***	.090***
	(.025)		(.025)	(.024)	(.024)	(.025)
At least one event to self	–	.136***	.114***	.122***	.122***	.117***
		(.032)	(.033)	(.032)	(.032)	(.033)
Events to others	–	.021*	.014	.015	.011	.012
		(.009)	(.009)	(.009)	(.009)	(.009)
Family-to-work conflict (FWC)	–	–	.116***	.123*	.071***	.062*
			(.022)	(.030)	(.022)	(.031)
Focal interactions						
FWC × Economic Hardship	–	–	–	−.066*	–	−.073**
				(.028)		(.028)
FWC × Events to Others	–	–	–	–	.035*	.042**
					(.015)	(.015)
Control measures						
Never married[a]	–	–	.012	–	–	.013
			(.037)			(.037)
Previously married[a]	–	–	−.008		–	−.012
			(.042)			(.042)
				–		
Spouse/partner works	–	–	−.041	–	–	−.040
			(.031)			(.031)
Number of children	–	–	−.010	–	–	−.009
			(.013)			(.013)
Preschool children (present)	–	–	.016	–	–	.024
			(.036)			(.036)
Housework per day	–	–	.014	–	–	.013
			(.007)			(.007)
Administrative[b]	–	–	−.041	–	–	−.041
			(.030)			(.030)
Service[b]	–	–	−.029	–	–	−.033
			(.042)			(.041)
Craft[b]	–	–	−.013	–	–	−.021
			(.054)			(.054)
Laborer[b]	–	–	−.003	–	–	−.007
			(.050)			(.050)
Work hours	–	–	.001	–	–	.001
			(.001)			(.001)
Baseline distress (logged)	.487***	.495***	.454***	.453***	.457***	.450***
	(.026)	(.025)	(.026)	(.026)	(.025)	(.026)
Baseline economic hardship	−.027	.020	−.025	−.021	−.024	−.023
	(.017)	(.013)	(.017)	(.016)	(.016)	(.017)
Women	.057*	.047*	.056*	.054*	.058*	.052*
	(.025)	(.024)	(.027)	(.024)	(.024)	(.027)
Household income[c]	.018	.019	.022	.021	.019	.023
	(.012)	(.012)	(.012)	(.012)	(.012)	(.012)
Age	−.003**	−.003**	−.003**	−.003**	−.003**	−.004**
	(.001)	(.001)	(.001)	(.001)	(.001)	(.001)
White	−.023	−.028	−.023	−.024	−.021	−.020
	(.029)	(.029)	(.029)	(.029)	(.029)	(.029)
Education	−.019*	−.024**	−.027**	−.026**	−.026**	−.028**
	(.008)	(.008)	(.009)	(.008)	(.008)	(.009)
Constant	.379	.327	.174	.151	.236	.286
	(.037)	(.038)	(.073)	(.052)	(.046)	(.083)
R^2	.366	.366	.397	.395	.395	.404

Note: Unstandardized coefficients are reported, with standard errors in parentheses.
[a]Compared with married.
[b]Compared with professionals.
[c]Household income was divided by 100,000 to present interpretable coefficients.
*p < .05. **p < .01. ***p < .001 (two-tailed test).

interaction effects from the Table 3. In Model 6 we include both interaction terms and work and family conditions that may affect our observed associations.[3]

RESULTS

Table 1 shows that the average age of participants is 45 years and that there is a slight overrepresentation of women. Sixty-four percent of the sample is married or cohabiting/common law, and half report having a spouse who works for pay. A majority of respondents report at least one child and perform an average of two hours on household chores per day. Most respondents report some postsecondary education, are employed in professional or administrative occupations, and work 42 hours per week. The median household income of our sample is $62,500. Although this figure is slightly higher than the 2007 U.S. national median household income of $50,233 (see DeNavas-Walt, Proctor, and Smith 2008), it is comparable to other nationally representative samples of working adults (median income $60,000; see Galinsky et al. 2008).

Models 1 and 2 of Table 2 show that economic hardship and recent events to others are positively associated with FWC; however, the events to self are unrelated to FWC. These associations remain relatively stable in Model 3 when we include family and work conditions. Overall, economic hardship is the second strongest determinant of FWC after baseline distress. It is noteworthy that the effect of events to others holds even when considering current and baseline levels of hardship, distress, and sociodemographic measures. Taken together, our results partially support Hypotheses 1 and 2.

As shown in Models 1 and 2 of Table 3, economic hardship and recent events are associated with greater distress. In addition, Model 3 demonstrates that FWC mediates the effects of both economic hardship and negative life events to others on distress (Sobel z-test statistic economic hardship = 1.58, $p < .05$; events to others = 1.66, $p < .05$). While the coefficient for economic hardship decreases only slightly, the coefficient for events to others is reduced to nonsignificance. One way to interpret these patterns is that economic hardship and events to others contribute to distress indirectly through their influence on FWC, which is consistent with our third hypothesis. According to Model 3 of Table 3, these associations remain stable even after considering relevant family- and work-related conditions.

Models 4 and 5 of Table 3 test the moderating effects of economic hardship and negative life events on the association between FWC and distress, respectively. In Model 4 we show that FWC moderates the association between economic hardship and distress, but the interaction effect is negative. This indicates that when levels of economic hardship are greater, the positive association between FWC and distress is actually weaker—a pattern that is consistent with the stress substitution hypothesis (Hypothesis 4b). The interaction remains stable net of baseline levels of distress and economic hardship and other sociodemographic measures. To illustrate, Figure 2 shows that the lowest levels of distress are observed when FWC and economic hardship are at their lowest levels. These findings suggest that experiencing high levels of both stressors is seemingly no worse (for distress levels) than having high exposure to only one of these stressors.

In Model 5, we observe a significant interaction between negative life events to significant others and FWC. Although we do not find a significant association between negative events to others and distress after controlling for FWC (as observed in Model 2), we do find evidence that negative events to others exacerbates the positive association between FWC and distress, net of baseline levels of distress and economic hardship. These results partially support the stress amplification hypothesis (Hypothesis 4a): Exposure to negative life events to significant others exacerbates the positive association between FWC and distress. Figure 3 illustrates these patterns by showing that the highest levels of distress are observed for people exposed to high FWC and negative life events to others.

DISCUSSION

In this article, we assess the ways that economic hardship and negative life events influence levels of FWC and their combined link to psychological distress. Several key contributions emerge. First, we take a unique approach to describing economic hardship and negative life events as antecedents of FWC and discover previously undocumented mediating and moderating associations among

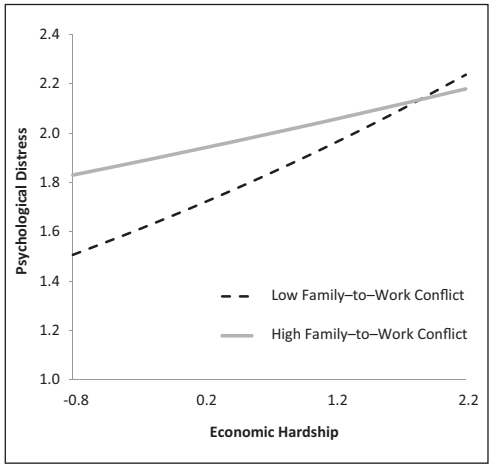

Figure 2. The Association between Economic Hardship and Psychological Distress across Levels of Family-to-Work Conflict

Note: Predicted values of psychological distress are based on results shown in Model 4 of Table 3. Calculations are based on the 10th and 90th percentiles for FWC, or 1 and 2.5, respectively. All continuous values are held constant at their respective means. For categorical control variables in the model, we solved that equation for white men. Solving for other values will alter the intercept but not the slope representing the association between economic hardship and psychological distress.

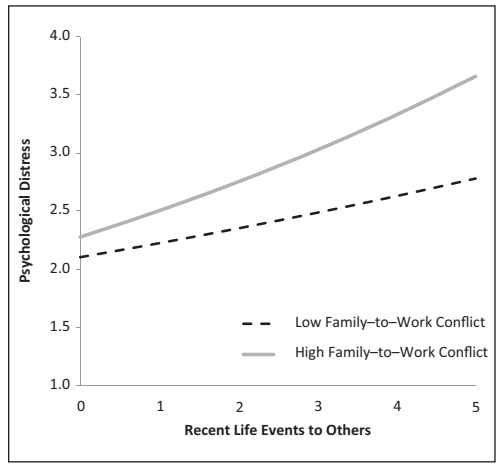

Figure 3. The Association between Life Events to Others and Psychological Distress across Levels of Family-to-Work Conflict

Note: Predicted values of psychological distress are based on results shown in Model 5 of Table 3. Calculations are based on the 10th and 90th percentiles for FWC, or 1 and 2.5, respectively. All continuous values are held constant at their respective means. For categorical control variables in the model, we solved that equation for white men. Solving for other values will alter the intercept but not the slope representing the association between life events to others and psychological distress.

these focal stressors. While FWC only slightly mediates the association between economic hardship and distress, we observe that it fully mediates the association between recent negative life events to significant others and distress. It may be that economic hardship contributes to distress through paths other than FWC, including other family stressors that we did not include in our study such as household conflicts, marital disputes, and parent-child conflict (Crouter and Booth 2004). Nonetheless, our findings underscore the possibility that the FWC is a mechanism that links economic hardship and negative life events to distress. In this regard, our findings are consistent with border theory and the stress process model in that they highlight how family-related stressors permeate the family-work border in ways that may distract individuals at work, increase FWC, and contribute to distress (Clark 2000; Pearlin 1999).

Our second contribution involves the observation of multiplicative effects. Economic hardship and negative life events modify the association between FWC and distress. For life events, however, we observe these patterns only for negative life events to significant others. Greater exposure to negative events to others exacerbates the positive association between FWC and distress—patterns that are consistent with stress process theory and our stress amplification hypothesis. Additive and multiplicative results suggest that events to others have a greater effect on levels of FWC and its association with distress. These patterns concur with the cost-of-caring hypothesis (Kessler and McLeod 1984) and the notion of linked lives (Elder 1995). Perhaps out of care, concern, and compassion, individuals dedicate time and energy to significant others' problems, which may reduce their ability to meet paid work expectations and increase FWC. Alternatively, when faced with a personal event, some people may be more likely to separate concerns from the work sphere by creating rigid boundaries between work and family.

Economic hardship also modifies the association between FWC and distress, but the patterns

are quite distinct from those found for negative life events. We observe that the positive association between FWC and distress is attenuated when individuals experience high levels of economic hardship—findings consistent with the stress substitution hypothesis. Moreover, we document these patterns despite of the fact that these stressors are associated positively with each other. Thus, we do not find support for the more intuitively appealing hypothesis of stress amplification. High economic hardship is similarly problematic for people, irrespective of their levels of FWC. To our knowledge, these findings are among the first to document such patterns among chronic stressors with a large sample of American workers in an array of occupations and job sectors, while also adjusting for baseline levels of psychological distress and hardship. These findings are particularly important given (1) the current state of the American economy, (2) rising levels of economic hardship, and (3) the distress associated with economic hardship and FWC (Grzywacz and Bass 2003; Jacobe 2008). Taken together, these observations expand ideas about "stress combination" in the stress process model (Pearlin 1999).

What processes might contribute to these patterns? We have extrapolated ideas from resource substitution, stress-buffering, and role multiplication theories to guide our hypothesis about the negative interaction between economic hardship and FWC. Resource substitution posits that some resources may serve as alternative means to reducing threats (Ross and Mirowsky 1989, 2006), suggesting that high levels of two resources are no better at reducing distress than high levels of one. We applied the underlying concepts and predictions of this view to advance a parallel claim about stressors: Economic hardship and FWC appear to substitute for each other in their influence on distress. As the effect of one increases, the effect of the other decreases. Stress substitution theory therefore speaks to the salience of certain stressors given the presence of others. As our findings suggest, the experience of FWC may be less relevant for those with high economic hardship because these individuals are concerned instead with basic needs, such as paying bills and buying food—concerns that may impact the presence of conflict between family and work domains. Thus, the experience of FWC becomes less salient to those with greater financial strains compared with those of higher status with fewer economic worries. While we do not test these ideas directly, we offer them as explanations to help understand the less intuitive multiplicative effects between FWC and economic hardship on distress.

While our results are consistent with resource substitution theory, the stress-buffering and role multiplication theories also provide useful insights. For example, one feature of Wheaton's (1985) description of stress buffering focuses on the different resources that individuals mobilize when they encounter a stressor. Applied here, it is plausible that individuals who experience greater economic hardship mobilize resources to reduce the associated distress. In turn, these resources may lessen the effects of FWC. This view may explain why greater economic hardship attenuates—rather than exacerbates—the positive association between FWC and distress. Unfortunately, we are unable to directly assess stress-buffering processes and therefore only offer these points as speculation. Future inquiry should test these ideas about the interplay between hardship and FWC and their implications for resource mobilization and levels of distress.

Role multiplication theory also provides a guide for interpreting our results with the notion that the more demanding roles individuals accumulate, the more energy they generate to carry out these roles (Butler et al. 2005; Voydanoff 2004). Specifically, the combination of family pressures and work responsibilities may facilitate energy and resources that, in turn, weaken the association between FWC and distress. Too many different pressures may motivate many people to "rise to the occasion" and exert additional efforts in both family and work roles. Again, these are complex ideas that we offer as potential explanations; although difficult to test, they are worth considering in future investigations.

Several other limitations deserve brief mention. First, while we adjust for baseline levels of distress and economic hardship, we did not include a measure of FWC in our Wave 1 interviews. This limits our ability to make definitive statements about causal ordering. Longitudinal data with repeated assessments of all measures would help determine if economic hardship precedes FWC. It is plausible

that FWC creates conditions that, in turn, elevate economic hardship or generate stressful life events. It is also possible that the levels and effects of each of these stressors change over time as individuals adjust and adapt.

Part of the story remains untold because our data lack certain measures. We did not ask about other family- and work-related resources that may contribute to FWC (Bellavia and Frone 2005), including family-friendly workplace cultures, child care arrangements, hired help, and spouse's household contribution (Wallace 2005). Furthermore, we lack measures of social and psychological resources, such as monetary or emotional support from friends or family. Finally, our measurement of economic hardship deserves closer scrutiny. While our subjective measure of individuals' financial circumstances at home is similar to others that are widely used in the literature (Mirowsky and Ross 1999; Ross and Huber 1985), it may be subject to response biases that more objective measures avoid. However, individuals' accounts of financial strain are useful for analyzing FWC because they tap into salient concerns of everyday life. And unlike objective measures of income and finances, they are favorable because they reflect both relative privation and personal opinions of satisfaction with one's economic circumstances.

CONCLUSION

Our study contributes to the mental health literature by documenting how various types of stressors combine to influence levels of psychological distress. Moreover, the focus on economic hardship and negative life events is timely. Given the current state of the American economy, the prevalence and consequences of economic hardship are particularly salient—and likely to have enduring implications for many Americans. Difficult economic times can take a toll on peoples' financial and personal well-being. We have expanded the scope of this discussion by also integrating the impact of negative life events as prevalent stressors within the family-work interface. Collectively, these features of everyday life can have lasting independent effects on other stressors and—perhaps more importantly—combine in surprising ways to influence mental health.

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NOTES

1. Only recently have scholars distinguished between work-to-family conflict (WFC) and family-to-work conflict (FWC) as separate constructs (Netemeyer, Boles, and McMurrian 1996). For our purposes, we concentrate on the latter direction (FWC). We recognize that this construct is limited because it does not consider spillover from work to family, which may be more prevalent among employees today (Bellavia and Frone 2005). But we argue that the experience of FWC is still considered an important antecedent of mental health, especially when experienced in conjunction with other family-related stressors. Moreover, we replicated all analyses with WFC, but the results were not comparable (available upon request) and therefore are not considered here.
2. To obtain the sample, we used a list-assisted random-digit-dialing (RDD) selection drawn proportionally from all 50 states from GENESYS Sampling Systems. The sampling approach employed the List +1 method, which tends to yield a higher proportion of productive numbers (Lepkowski 1988). List-assisted RDD (see Waksberg 1978) increases the probability of residential numbers while minimizing the biases often associated with nontraditional RDD techniques. The final sample was based on telephone numbers for residential households, those agreeing to answer screening questions, successfully screened households with one or more employed adults, and eligible households with a subsampled adult who agreed to participate.
3. In subsequent analyses we tested possible interaction terms between economic hardship and life events, but the results were not statistically significant. We also considered potential three-way interactions between our focal variables and control measures, none of which were significant (results available upon request).

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Bios

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