Division of Labor Stress and Dual-Earner Parents' Well-being During the COVID-19 Pandemic

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Abstract

The COVID-19 pandemic left working parents scrambling to adapt to changes in their children's school, childcare, and after-school activities while often working from home under the social isolation of quarantine and social distancing. These abrupt changes increased the number of hours parents spent doing unpaid labor, and increased parents' feelings of role strain between the work and family domains. Stress associated with role strain has important, negative implications for mental health. We use data from the National Couples' Health and Time Study, a nationally representative study of same- and different-gender couples, to examine stress stemming from housework, childcare, and household planning and management and how they are associated with depressive symptomology and anxiety among dual-earner couples with children. We find that housework stress is important for contributing to lower well-being among women, whereas stress stemming from household planning and management is important for contributing to lower well-being among men.

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The COVID-19 pandemic abruptly changed the everyday lives of people in the U.S. in March 2020. This unprecedented pandemic left working parents scrambling to adapt to changes in their children's school, childcare, and after-school activities while often working from home under the social isolation of quarantine and social distancing recommendations (Goldberg et al., 2021). These abrupt changes increased the number of hours parents spent doing unpaid labor (Carlson et al., 2020), and increased parents' feelings of role strain between the work and family domains (Brumley et al., 2021). Stress associated with role strain has important, negative implications for mental health (Harkness & Hayden, 2020; Ruppanner et al., 2019). One way to measure role strain is through division of labor stress which is a type of daily stress experienced by parents (Goode, 1960). Experiences of divisions of labor stress are highest among dual-earner couples because traditional homemaker and breadwinner roles are not possible (Harkness & Hayden, 2020). In the current study, we examine three specific sources of division of labor stress stemming from housework, childcare, and household planning and management and how they are associated with depressive symptomology and anxiety among dual-earner couples with children under 18 during the COVID-19 pandemic.

Background

In the U.S., most mothers and fathers work full-time (Killewald & Zhuo, 2019), and being part of a dual-earner couple is common (Waite & Nielsen, 2001). Since the 1960s, the total number of hours mothers and fathers spend in paid and unpaid labor hours has increased (Bianchi et al., 2006), and parents who are part of dual-earner couples feel the most time pressure compared with single-earner families (Craig & Brown, 2017; Mattingly & Sayer, 2006). Much of the research seeking to understand the link between unpaid labor and well-being has focused explicitly on time spent doing paid and unpaid labor (Bird, 1999; Bird & Fremont, 1991). While the links between time spent doing both paid and unpaid work to lower well-being have been well-established (Bird, 1999), especially for women (Bird & Fremont, 1991; Glass & Fujimoto, 1994; Roxburgh, 2004), there is some evidence that stress stemming from the division of labor may be a stronger predictor of well-being than actual time spent doing paid and unpaid labor (Hagqvist et al., 2012; Meier et al., 2018).

Role strain theory (Goode, 1960) is helpful for understanding how division of labor stress may shape well-being during the pandemic. When individuals hold multiple roles, such as a worker and a parent, intense role demands can contribute to stress. One situation that is likely stressful is being a parent in a dual-earner couple during a pandemic when the demands of both work and family are likely to conflict, especially as parents are figuring out how to cover the additional hours spent doing unpaid labor (Carlson et al., 2020). As a result, parents are likely experiencing increased stress stemming from the division of labor as they attempt to meet the needs and demands of their family and their work.

Understanding stress stemming from the division of labor during the COVID-19 pandemic is critically important as evidence suggests that parents are facing great challenges to their well-being. For example, in a convenience sample of 405 parents surveyed in April 2020, just about a month after widespread shutdowns happened, 40% of them met the criteria for major depression or severe major depression, and 39.9% met the criteria for moderate or severe anxiety (Lee et al.,

2020). Indeed, parents are spending more time doing unpaid labor than ever before as members of families are spending more time at home than ever before (e.g., helping children with distance education, working remotely (e.g., helping children with distance education, working remotely; Carlson et al., 2020; Lee et al., 2020) and they are reporting difficulties balancing the demands work and family (Garbe et al., 2020).

The Current Study

While there have been some convenience sample studies focused on the well-being of parents during the pandemic (Achterberg et al., 2021; Lee et al., 2020), the current study draws from a nationally representative sample of couples aged 20 to 60 collected during the COVID-19 pandemic. Our sample includes 755 dual-earner parents with at least one child under the age of 18 living in their household. Specifically, we examine how division of labor stress stemming from 1) housework, 2) childcare, and 3) household planning and management are associated with 1) depressive symptomology and 2) anxiety.

Data and Method

Data come from the National Couples' Health and Time Study (NCHAT), which entered the field on September 1, 2020, and data collection was completed in April 2021. The sample includes 3,642 main respondents. NCHAT is a nationally representative study of same- and different-gender couples in the United States. NCHAT respondents are part of the Gallup Panel consisting of 110,00 individuals who have been recruited since 2008 as part of the Gallup Daily Tracking Survey.(Gallup, 2021) To be included in the study, the main respondent must have been between 20 and 60 years old, living with a spouse/partner, and able to read English or Spanish. The survey took approximately 40 minutes to complete on Qualtrics.

The current analyses include data from 755 main respondents who are in a dual-earner couple with at least one child under the age of 18. Parents reported an average of 1.69 children ranging from 1 to 7. In the majority of couples (73%; n = 517), both partners worked full-time. Just over half of the sample identified as women (55%) and 44% identified as men. Less than 1% identified as a trans man or trans woman and they were recoded to the appropriate gender category (i.e., trans man was coded as man and trans woman was coded as woman). The majority of parents were in different-gender couples (86%), and most identified as heterosexual (72%), followed by bisexual (12%), gay or lesbian (9%), and another or multiple sexual identities (8%). Main respondents' ages ranged from 23 to 60, with a mean age of 42.95 (SD = 7.56). The majority of the sample identifies as non-Latinx white ($n = 410$), followed by Latinx ($n = 139$), non-Latinx Black ($n = 87$), non-Latinx Asian ($n = 64$), and non-Latinx Multirace or another race ($n = 55$).The majority of the sample was married (87%). A majority of respondents had earned at least a college degree (64%), followed by some college (21%), and then high school or less (15%). The average household income was $160,045.

Measures

Depressive Symptomology. Depressive symptomology was measured using the 10-item CES-D Short Form (Andresen et al., 1994). Respondents were asked how often they felt certain ways (e.g., lonely, depressed) in the past seven days on a scale from 0 (Rarely or none of the time (less than 1 day)) to 3 (Most or all of the time (5-7 days)). An average was taken of the ten items ($\alpha = .86$).

Anxiety. Anxiety was measured using the 7-item Generalized Anxiety Disorder measure (Spitzer et al., 2006; Tiirikainen et al., 2019). Respondents were asked how often they were bothered by seven different problems (e.g., not being able to stop or control your worrying) on a scale from 1 (not at all) to 4 (nearly every day) in the past seven days. An average was taken of the seven items (α = .92).

Division of Labor Stress. Respondents were asked, "Overall, how stressed are you about the following?" 1) Dividing housework; 2) Dividing childcare; and 3) Dividing household planning and management on a scale from 1 (not stressed at all) to 5 (very stressed). Each question was used individually in analyses allowing us to capture how each type of stress is associated with parental well-being.

Control Variables. Job Stress. Job stress was measured by asking parents on a scale from 1 (not all stressed) to 5 (very stressed) how stressed they are about their job. *Same-gender couple.* Parents reported their own and their spouse/partner's gender identity. Participants were coded as being in a same-gender couple if their gender identities matched. *Sexual Minority.* Respondents were asked to report their sexual identity from a list of 11 options, including: heterosexual or "straight", gay or lesbian, bisexual, same-gender-loving, queer, pansexual, omnisexual, asexual, asexual, don't know, questioning, and something else. Sexual minority status was coded as exclusively heterosexual, gay or lesbian, bisexual, and other or multiple sexual identities. *Household Income.* We used a log of respondents' household income point estimate. *Total Household Children.* Parents reported the ages of all children living in their household most of the time. *Child Age 0 to 4.* If a child aged 0 to 4 is reported in the household, parents will be coded as a 1. *Child Age 5 to 11.* If a child aged 5 to 11 is reported in the household, parents will be coded as a 1. *Child Age 12 to 17.* If a child aged 12 to 17 is reported in the household, parents will be coded as a 1. *Race* was coded as Non-Latinx white, Non-Latinx Black, Non-Latinx Asian, Latinx, and Non-Latinx Multiracial or Other Race. *Educational Attainment.* Educational attainment was coded as high school degree or less, some college or technical training, and Bachelor's degree or more. *Age* is coded as a continuous variable calculated from month and year of birth to the month and year the respondent completed the survey. *Caring for Another Household Member.* Respondents reported if they were caring for a sick or elderly family member inside or outside of their home. *Marital status* was coded as a dichotomous variable (0 = cohabiting; 1 = married). *Feminity.* Respondents reported the extent to which they are masculine to feminine on a scale from -3 (very masculine), 0 (equally feminine and masculine), and 3 (very feminine). *Distance Education.* Parents were asked, "Are your children currently attending school (K-12) in-person, online, or are they homeschooled?" Any parent that reported that their child was doing distance education online or homeschooled were coded as a 1. *Working from Home.* Parents were coded as a 1 if they endorsed that they "worked remotely or from home more than I usually do" in the past week because of the coronavirus pandemic. *Survey month* will be coded as a continuous variable ranging from 1 (September 2020) to 8 (April 2021).

Results

Weighted analyses using the population subset command were conducted in STATA 16.0. Unconditional subpopulations analyses are recommended instead of dropping cases that are not in the subpopulation, which can result in restricted estimates and variances (West et al., 2008). Models were checked for multicollinearity prior to estimation. All variance inflation factors were below 10, indicating that there is no multicollinearity among variables. Correlations for housework stress, childcare stress, and household planning to management stress ranged from .60 to .73. Table

1 shows descriptive statistics for key study variables. Women and men reported housework stress, childcare stress, household planning and management stress, depression, and anxiety below the midpoint. We tested gender differences for all key study variables by conducting two-tailed Independent Samples t-Tests. Women compared with men reported significantly more depression ($t(738) = 3.77, p < .001$), anxiety ($t(746) = 5.29, p < .001$), and division of labor stress in housework ($t(753) = 4.44, p < .001$), childcare ($t(708) = 3.75, p < .001$), and household planning and management ($t(753) = 4.85, p < .001$).

Next, we regressed predictors of each indicator of well-being separately for men and women. Results are shown in Table 2. For women, more housework stress was associated with more depressive symptomology. More job stress was associated with more depressive symptomology. Older women reported less depressive symptoms. Women with a Bachelor's degree or more reported more depressive symptoms than women with high school or less education. Turning to anxiety, women who reported more housework stress and more household planning and management stress reported more anxiety. Women who reported more childcare stress reported less anxiety. More job stress was also associated with more anxiety. Non-Latinx Black and Non-Latinx Asian women reported less anxiety than Non-Latinx white women. Married women reported more anxiety than cohabiting women. Older women and those with a higher household income reported less anxiety. Women who reported that they have children doing distance education reported more anxiety.

For men, more household planning and management stress was associated with more depressive symptomology. Job stress was associated with more depressive symptomology. Men who identified as gay or have multiple or other identities reported more depressive symptoms than men who identified as heterosexual. Men in same-gender couples reported less depressive symptoms than men in different-gender relationships. Older men reported less depressive symptoms. Men with some college reported more depressive symptoms than men with high school or less education. Men with three or more children reported less depressive symptoms than men with one household child. Men who identified as more feminine reported more depressive symptoms. Turning to anxiety, men who reported more childcare stress and more household planning and management stress reported more anxiety. More job stress was associated with more anxiety. Men who identified as Non-Latinx Asian reported less anxiety than Non-Latinx white men. Men who identified as gay or have multiple or other identities reported more anxiety than men who identified as heterosexual. Men in same-gender couples reported less anxiety than men in different-gender relationships. Older men reported less anxiety. Men with a Bachelor's degree or more reported more anxiety than men with high school or less education. Men with two or three or more children reported less anxiety than men with one child.

These analyses show that division of labor stress is associated with well-being, but differs for women and men depending on the domain. Housework stress is particularly important for contributing to poorer well-being among women. In contrast, stress stemming from household planning and management is particularly important for contributing to poorer well-being among men. Surprisingly, childcare stress was associated with less anxiety for mothers. These analyses highlight the importance of measuring separate domains of division of labor stress.

Table 1. Descriptive Statistics for Key Study Variables (N=755; weighted mean)

	Women			Men		
	Mean	SE	Range	Mean	SE	Range
Housework Stress	2.23	0.09	1 -5	1.75	0.06	1 -5
Childcare Stress	2.09	0.09	1 -5	1.69	0.07	1 -5
Household Planning Stress	2.21	0.08	1 -5	1.73	0.06	1 -5
Depression	7.96	0.40	0-29	6.09	0.29	0-25
Anxiety	12.40	0.36	7-28	10.17	0.21	7-28

Table 2. Predictors of Depressive Symptomology and Anxiety

	Depressive Symptomology				Anxiety			
	Women		Men		Women		Men	
	B	SE	B	SE	B	SE	B	SE
Housework Stress	1.30**	(0.41)	0.61	(0.35)	0.94*	(0.42)	0.15	(0.26)
Childcare Stress	0.00	(0.37)	0.70	(0.46)	-0.87*	(0.35)	0.82*	(0.32)
Household Planning Stress	0.68	(0.36)	1.01*	(0.40)	0.83**	(0.32)	0.57*	(0.30)
Job Stress	0.95***	(0.21)	0.92***	(0.22)	0.70***	(0.20)	1.25***	(0.18)
Race (Non-Latinx white)								
Non-Latinx Black	-1.43	(0.92)	0.40	(1.09)	-2.68**	(0.88)	-1.09	(0.70)
Non-Latinx Asian	-1.41	(1.45)	-1.10	(0.78)	-3.73**	(1.32)	-1.37*	(0.64)
Latinx	-1.08	(0.91)	-0.24	(0.59)	-0.49	(0.82)	-0.48	(0.46)
Non-Latinx Multi/Other	-1.17	(2.13)	-0.67	(1.03)	-0.55	(1.57)	-1.10	(0.95)
Sexual Identity (Heterosexual)								
Gay or Lesbian	-1.52	(2.99)	7.87***	(2.23)	-0.54	(1.82)	6.06*	(3.01)
Bisexual	1.32	(1.21)	3.38	(1.75)	2.15	(1.43)	2.51	(1.45)
Multiple or Other Identity	-0.79	(2.76)	8.33***	(1.60)	-1.26	(1.06)	4.72***	(0.91)
Couple Gender Composition (Different)								
Same-gender couple	0.80	(2.65)	-6.38***	(1.60)	1.33	(1.60)	-4.60*	(1.98)
Married (cohabiting)	0.98	(0.97)	1.56*	(0.70)	1.91*	(0.90)	0.79	(0.70)
Age	-0.12*	(0.06)	-0.12**	(0.04)	-0.12*	(0.05)	-0.08*	(0.03)
Education (Highschool or less)								
Some College	1.41	(0.90)	1.72*	(0.69)	0.92	(1.07)	0.86	(0.51)
Bachelor's Degree +	1.93*	(0.91)	1.49	(0.78)	1.36	(0.87)	1.14*	(0.53)
Employed Full-time (part-time)	-0.78	(0.79)	0.31	(1.10)	0.11	(0.65)	-0.61	(0.81)
Children in Household (1)								
2	0.71	(0.64)	0.07	(0.81)	1.21	(0.75)	-1.29*	(0.51)
3 or more	-0.59	(1.18)	-2.22*	(1.10)	0.53	(1.26)	-2.07**	(0.73)
Child Age 0 to 4	-1.89	(1.03)	0.52	(0.70)	-0.92	(1.19)	0.39	(0.59)
Child Age 5 to 11	-0.60	(0.91)	-0.84	(0.80)	0.61	(0.94)	-0.21	(0.59)
Child Age 12 to 17	-0.82	(0.95)	1.03	(0.83)	-1.28	(1.12)	1.56**	(0.57)
Caring for Another Family Member	1.66	(0.92)	0.47	(0.63)	1.62	(1.06)	0.75	(0.53)
Feminity	-0.15	(0.33)	0.64*	(0.31)	-0.48	(0.42)	-0.12	(0.27)
Log of Household Income	-0.63	(0.42)	-0.26	(0.27)	-0.90*	(0.37)	-0.13	(0.17)
Kids School At Home	1.14	(0.59)	-0.27	(0.53)	1.17*	(0.52)	-0.31	(0.35)
Working from Home	-0.12	(0.59)	-0.92	(0.64)	0.94	(0.66)	-0.19	(0.42)
Constant	12.20**	(4.59)	7.37*	(3.41)	20.04***	(4.60)	8.69**	(2.90)
Subpopulation Observations	291		263		298		265	
Observations	3524		3559		3531		3561	
F	7.30***		16.68***		8.53***		15.48***	
R2	0.45		0.45		0.44		0.51	

Note: *** p < .001; ** p < .01; * p < .05
Reference category listed in parentheses. Month of survey included but not shown.
Source: National Couples' Health and Time Study

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