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Managing Multiple Roles During the COVID-19 Lockdown: Not Men or Women, but Parents as the Emotional “Loser in the Crisis”

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Supplementary Materials: Data, Materials [see [Index of Supplementary Materials](#)]



Abstract

The COVID-19 pandemic represents a global crisis with high demands for the general population. In this research, we conducted a cross-sectional online study (N = 2278), which was diverse regarding age, employment, and family status to examine emotional well-being in times of the lockdown. We focused on inter-role conflict as a central factor associated with well-being. We tested whether individuals with high inter-role conflict (e.g. care-taker and employee) would appraise the lockdown more negatively than those experiencing low role-conflict and whether this would be associated with fatigue. In addition, we looked at gender as moderating this link. Latent modelling only showed small gender specific effects in the non-parent sample. However, in the parent sample, we found that although men experience less inter-role conflict than women on average, they coped significantly less well with it. We discuss the role of gender stereotypes in creating these psychological obstacles for men and women.



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Keywords

COVID-19 pandemic, inter-role conflict, emotional well-being, gender stereotypes, breadwinner

Highlights

- A cross-sectional online study (N = 2278) examined whether parents would report higher inter-role conflict and reduced well-being compared to non-care-givers during the lockdown.
- Only in the parent subsample, women reported higher inter-role conflict associated with greater fatigue than men.
- However, latent modelling showed that although fathers experienced less inter-role conflict than mothers on average, they coped significantly less well with it.
- In line with social roles, men were much more affected by financial worries than women, which shows the still important breadwinner-model for men.
- Instead of focusing only on the barriers that hinder women's advancement, we argue that we should focus more on men's underrepresentation in care-taking roles.

The corona pandemic, with its effects on different areas of life, is a psychological challenge for people all over the world. In some countries, the stringent lockdown, labeled 'physical distancing', lasted up to several months. During lockdown, many people found themselves in unusual situations. With nowhere to go, some people had time to relax; slowing down has been discussed as a positive side-effect of this pandemic. For others, the situation was highly demanding. Especially for parents who worked from home, at the same time attempting to home school their children and provide regular household responsibilities. In Germany alone, this affected more than 14 million parents (Bujard, Laß, Diabaté, et al., 2020). We were interested in the question of whether this role conflict would predict how exhausted and tired people would feel as a consequence of the pandemic measures. Looking at the social and economic aspects of the pandemic led us to further assume that the lockdown may have differentially affected men and women. More precisely, we tested whether gender would moderate the relation between role conflict and emotional exhaustion.

Inter-Role Conflict and Fatigue in Times of Physical Distancing

During the COVID-19 pandemic, people constantly faced new information and were forced to make difficult decisions on a daily basis. In addition, the fear of financial losses increased their risk of stress related symptoms. In times of lockdown, parents might feel permanent conflicting demands between household, homeschooling, and paid work. Thus, psychosomatic outcomes were expected to increase (e.g. Liu et al., 2020).

We focused on role conflict due to multi-tasking as one factor related to well-being that has not received much attention in the COVID-19 debate. This is surprising given the abundant evidence that role conflicts are strong correlates of well-being (e.g. Grandey & Cropanzano, 1999; Voydanoff, 2002), and psychosomatic symptoms (Blom et al., 2017). Situations of role pressure, with one social role conflicting with another, seems to be strongly linked to burnout. Especially work that interferes with family, which is called *work-family conflict*, or family demands that interfere with work, so called *family-work conflict*, are known to trigger exhaustion (Bakker et al., 2005; Grandey & Cropanzano, 1999). Kahn et al. (Kahn, Wolfe, Quinn, et al., 1964) provided a framework for studying conflict between incompatible behavioral expectancies regarding different social roles. Since then, the concept has been used by different research groups and in different disciplines such as sociology, psychology, economics, organizational behavior, or social work (for an overview see Voydanoff, 2008). As a result, the concept is still used somewhat ambiguously. Here, we refer to the conflicting demands as *inter-role conflict*, which denotes the conflict between different social roles (e.g. Kahn et al., 1964).

In the literature, fatigue has often been discussed as a female experience (Purvanova & Muros, 2010). In fact, men and women seem to experience emotional exhaustion in different ways (Maslach et al., 2001). Consistent with gender role theory (e.g. Eagly & Wood, 2012), women seem to be more likely to express tiredness and lack of energy, because they learn to show their emotions, whereas men seem to be more likely to hide their emotions and avoid appearing weak. Thus, there is a risk that men's fatigue and exhaustion go unrecognized. In times of the pandemic, with novel daily routines, in which the different social roles and tasks collide with one another, we thus expect an increase in emotional pressure. Women, especially working mothers, were perceived as particularly hard hit by the COVID-19 crisis. However, many fathers also took responsibility for childcare. So, one could ask whether the lockdown mainly affected women and reinforced gender inequality or whether the story about women suffering most reinforced traditional gender stereotypes and underestimated the emotional exhaustion and fatigue of fathers and parents in general.

Gendered Patterns of Work Distribution

Even in societies with greater gender equality, traditional gender roles cannot be neglected; many tasks are divided on the basis of sex (Bear & Glick, 2017). The stereotype of motherhood still includes the idea of being irreplaceable and to be the main care-taker (Elvin-Nowak & Thomsson, 2001). Social role theory (Eagly & Wood, 2012) postulates that the stereotype of a "typical" man or woman arises primarily from the distribution of men and women into social roles within their society. According to this theory, gender roles have formed these stereotypes over a long history of division of labor and socialization. Traditionally, women took care of the household and children, whereas men took the role of the provider of food and money. As a result, men are seen as having

lower social-emotional skills than women, and they are perceived as more competent and agentic (Park & Banchevsky, 2018). In contrast, for men, the breadwinner model is still one major component of their social role. In a large survey, 71 percent of the participants said that financial support of the family is very important to be a good husband, whereas only 32 percent said that for women (Pew Research Center, 2017). When men cannot fulfill this role, psychological distress arises (Syrdal, 2020). Accordingly, men's involvement in communal roles has not been increasing and in consequence, the male stereotype appears rather stable (e.g. Croft et al., 2014; Fiske et al., 2002). For women, the traditional roles of caregiving and the household have been expanding to include more agentic responsibilities and traits, such as having a career outside the home. However, despite this progress, there is a persistent gap between what men and women are paid (World Economic Forum, 2020). Especially women who violate the gender stereotype (e.g. women who express anger at work compared to angry men at work) are seen as less competent and accorded lower wages than men for the same job (e.g. Brescoll & Uhlmann, 2008).

There is a large body of literature showing that these social roles influence individuals' self-perceptions, leading to stereotype-congruent behaviors (e.g. Steele, 1997). Thus, social roles not only foster stereotypes, but create the reality for both sexes and reinforce gender-specific expectations (see Rudman & Glick, 2001). Recently, researchers have started to look more closely into the differences between individuals' biological sex versus their social roles with regard to stereotypes. These studies experimentally set apart sex from social role. They found that the social role, more than the person's sex, determines how this person is seen (e.g. Okimoto & Heilman, 2012). More precisely, there is a so called *parenthood penalty* (e.g. Steffens et al., 2019) in that working men and women encounter disadvantages in pay or perceived competence when they are seen as a "parent". In other words, discrimination against mothers is not primarily rooted in them being women, but because they are viewed as a care-giver (so called *motherhood penalty*, Heilman & Okimoto, 2008) and thus expected to be less dedicated to work. Indeed, there is ample evidence that the perceived lack of fit between a person's attributes and the presumed nature of the job requirements leads to inequalities in, for instance, selection (e.g. Schmader et al., 2007), promotion or pay (e.g. Lyness & Heilman, 2006) of women.

Recently, Steffens and her colleagues (Steffens et al., 2019) tested this hypothesis in two controlled studies and found a similar effect for single fathers. Using an experimental design that separated gender from family status found that single fathers were perceived as lower in competence compared to single mothers, and to men and women without children. Thus, the social expectations for gender-role-congruent behavior produce powerful norms for the behavior of women and men (e.g. Eagly & Wood, 2012). These norms are often internalized and might explain why the traditional division of paid work versus unpaid household chores becomes emphasized in couples after the birth of the first child (e.g. Belsky & Pensky, 1988; Kùhhirt, 2012). Employers might implicitly expect different

engagement from their male versus female employees, thus putting dissimilar pressure on their workers.

Inter-Role Conflicts as Energy-Consuming Devices

Men and women seem to perceive and react to the social norms and expectation of combining paid work and unpaid work differently, thus falling back on classical gender roles. This is not surprising, given the fact that especially in contexts of subtle stereotype activation, individuals assimilate to group-level expectations (Brown & Day, 2006; Cadinu et al., 2005; Steele & Aronson, 1995). When the social roles are not explicitly mentioned and when time and mental resources are low, gender stereotypes are easily activated (see for instance de Lemus et al., 2018). Due to frequent use in society, gender (together with age and race) is a highly accessible social category and relatively robust against cross-categorization (Klauer et al., 2014). That people use these categories to self-stereotype (Hogg & Turner, 1987) has been shown by abundant research in the tradition of self-categorization theory (Turner, Hogg, Oakes, Reicher, & Wetherell, 1987) and related approaches. According to self-categorization theory, the formation and use of a social category in a certain context is predicted by the interaction between the relative accessibility of the category (e.g. social expectations) and the category-stimulus fit. In line with this notion, it has been shown that people do self-stereotype based on gender related attributes (e.g. Oswald & Lindstedt, 2006) and act in terms of the associations with that category. So, when multiple categories are relevant in a certain situation, such as the role of care-taker and the role as employee, it seems more likely that the gender-related category trumps the other categories. When the various roles are separated due to different social contexts, home versus work place, it might be easier to act according to the context. In times of a lockdown, under which all social roles are combined into one setting, it might be more difficult to act and manage different roles: housekeeper, care-taker, and breadwinner. In consequence, gender-congruent behavior becomes more likely. Based on this literature, we thus expect that the link between inter-role conflict and fatigue during the pandemic is different for men and women based on different gender stereotypes. Fatigue is expected to be higher when individuals act against the internalized gender role expectation. For women, it would be socially expected to take care of the household, while being less devoted to their paid work. For males, the social norm would be different. Even when working from home, the social expectation would be to be mainly dedicated to work and responsible for the household's finances. To illustrate, for those fathers who are committed to their family and increased their hours spent on childcare and the household, role conflict was expected to trigger an inner struggle. They had fewer inner schemes to rely on, were probably less experienced with conflicting social roles, and at the same time, experienced pressure from their employers. Thus, role conflict was expected to cost a lot of energy, leading to emotional exhaustion and fatigue.

Method

Inter-role conflict has so far been mainly studied in the context of work and organizational psychology. Especially work-family conflict has been shown to be a major source of stress associated with burnout (e.g. Peeters et al., 2005). Combining inter-role conflict with social role theory is a novel contribution to the literature. Especially in the COVID-19 context, with homeschooling, care-taking and home-office taking place at people's households, we believe that the combination of these concepts helps to better understand the stressors of this specific situation. With the recommendation to keep schools and nurseries closed for several months, the care burden lay with the family – and might be the case again when a second wave might hit in winter.

Design and Hypotheses

Based on social role theory and social cognitive explanations, we expect that gender would moderate the link between inter-role conflict and fatigue. Because men and women may perceive and react to the demands of combining paid work and unpaid work (i.e., childcare, household) differently, we aimed to study the consequences for their well-being. Therefore, we conducted a cross-sectional online study via SoSci Survey using snowball sampling, in which the link was published on various social media sites, and was sent via mail to students of several German Universities. The study was accessible from 26th of March to 30th of April 2020. People were asked to share the link and to invite others to participate. We aimed for a diverse sample with regard to age, employment status, and family status in order to examine our research question¹.

We hypothesized that inter-role conflict would be higher among parents versus non parents (H1). Based on previous work (for a meta-analysis, see Amstad, Meier, Fasel, et al., 2011), we further assumed (H2) that this inter-role conflict is demanding, and is associated with more negative appraisals as well as greater fatigue. We expected that gender would moderate the link between inter-role conflict, appraisals and fatigue (H3). In addition, given the dominance of the breadwinner model as part of the male stereotype, financial worries because of the COVID-19 situation should be more distressing for men than for women (H4).

Technically speaking, we aimed at testing a moderated mediation, with gender moderating the link between inter-role conflict, inner cognitions and emotional well-being.

Demographics

Overall, 4653 people opened the link to the study, and 2278 participants completed the questionnaire. We analyzed only the data of those who completed the questionnaire. The

1) The questionnaire included a second set of items to answer another research question about personality and emotion regulation that we discuss in a second paper.

mean age of this sample was 30 years ($M = 30.74$, range 16 – 79 years) with 61% female and 36% male participants; less than 1% indicated divers and another 2% didn't want to indicate their gender. Participants came from all over Germany.

Family and Employment Status

About half the sample, namely 46% were employed, about 44% were students, 5% were on parental leave, and 2.5% were unemployed. From the overall sample, 530 participants indicated to be actively involved in care-taking (the *parent sub-sample*). In the *parent sub-sample*, 66% identified as female, 32% as male and 2% did not indicate their gender. Employment status of mothers and fathers was comparable (mothers: 50% home office, 19.70% employed, but no home office, 18% students, 10% on parental leave; men: 45% home office, 19.8% employed, but no home office, 26% students, 4% parental leave). Mean age was 37.4 years, ranging from 19 to 66 years.

Material

First, participants were informed about the purpose of the study and then gave informed consent. If not indicated otherwise, all following questions were asked using 5-point Likert scales with each number labeled (1 = *not at all*, [...], 5 = *absolutely*). All measures can be found on the OSF-platform¹ (see [Supplementary Materials](#)).

First, based on appraisal theories of emotions (e.g. [Moors et al., 2013](#)), we asked about the *subjective evaluation* of the lockdown measuring coping potential, controllability, and certainty (e.g. “I am overextended with the situation”, “I feel I have no control over the situation”, 4 items, $\alpha = .78$). One item that was reverse-coded (“I feel that the lockdown is just scaremongering”) was not included in the scale, because the reliability test showed that it did not relate to the other appraisal items. In addition, we self-generated 2 items specific to financial worries (“I worry about my financial situation”, “I have existential fear”) related to the pandemic lockdown.

Next, we used the 7-items of the German version of *role conflict scale* ([Bramlage et al., 2017](#); $\alpha = .88$; e.g. “Different groups of people raise different claims at the same time”, “I have to do things that can hardly be juggled”, “I feel being in a permeant role conflict”). We used this scale because it had already gone through a process of translation and back-translation by native speakers. However, given the low factor loadings of three of the used items for role conflict, this latent variable was estimated by just four items, which is particularly crucial given the sample size of the male subsample ([Wolf et al., 2013](#)); additionally, the complete scale showed no measurement invariance, which is essential for testing latent group differences. Looking at the items more closely (see [Supplementary Materials](#)), we also found that the included items probably made most sense to participants in the context of the lockdown.

In order to measure *fatigue*, we used the four items of the alertness subscale from the short version of the Multidimensional Mood State Questionnaire ([Steyer et al., 1997](#);

that is, awake, nerveless, tired, and rested). Participants rated their affective state on a five-point scale concerning the frequency of each item (*never – very often*) within the last 2-3 days. Overall, it took about 10 minutes to complete the questionnaire. Participation was voluntary and not paid in any way.

Results

Mean Differences in Role Conflict and Fatigue

A multivariate analysis of variance was conducted with gender (men vs. women) and care status (caregiver vs. non-caregiver) as independent variables and role conflict and fatigue as dependent variables. The two main effects were significant, gender: $F(2, 2171) = 7.14, p = .001, \eta_p^2 = .007$, care: $F(2, 2171) = 225.12, p < .001, \eta_p^2 = .172$, but they were qualified by a significant interaction, $F(2, 2171) = 17.78, p < .001, \eta_p^2 = .016$. We found significant differences between care-givers and non-caregivers both in role conflict, $t(740.3) = 21.42, p < .001$, Cohens $d = 1.13$, and fatigue, $t(2228) = 7.48, p < .001$, Cohens $d = 0.37$. These results show the high amount of personal conflict with which caregivers were confronted during the COVID-19 crisis. Among non-caregivers, differences between men and women were rather small for role conflict, $t(1662) = -2.76, p < .01$, Cohens $d = -0.14$, with a slightly higher role conflict in men and even non-significant for fatigue, $t(1658) = 0.95, p = .343$, Cohens $d = 0.05$. In contrast, mothers showed a significantly higher role conflict than fathers, $t(516) = 4.60, p < .001$, Cohens $d = 0.44$, and were slightly more exhausted, $t(514) = 2.43, p = .015$, Cohens $d = 0.23$. Means and standard deviations for the subsamples are presented in Table 1.

Table 1

Means (Standard Deviations) of Role Conflict and Fatigue for the Subsamples

Subsample	Caregiver		Non-caregiver	
	Men ($n = 166$)	Women ($n = 350$)	Men ($n = 655$)	Women ($n = 1005$)
Role conflict	2.95 (1.04)	3.43 (1.15)	2.18 (0.90)	2.06 (0.88)
Fatigue	2.95 (0.81)	3.14 (0.85)	2.76 (0.80)	2.80 (0.83)

Predictiveness of Role Conflict for Fatigue in the Total Sample

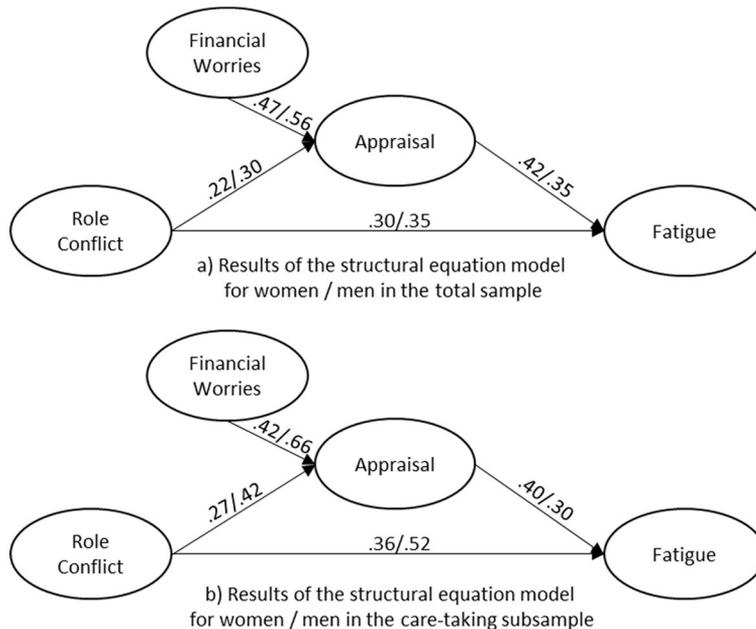
We examined the proposed relationships among the variables with structural equation modeling in order to control for measurement errors. The resulting model revealed an appropriate fit to the data, $\chi^2(146) = 806.42$, TLI = .924, CFI = .947, RMSEA = .046 with 90% CI [.042, .049]. The model explained 32% of variance in fatigue for women and 31%

for men. The moderator effect of gender was examined by a multiple group analysis after establishing measurement invariance of the different variables across women and men. This means that nested models were used to compare the path loadings between women and men by fixing them as equal and re-fitting the model. We found a significant moderator effect of gender for the relation between role conflict and appraisal, $\chi^2(1) = 4.84$, $p = .028$, whereas it was non-significant for the relation between appraisal and fatigue, $\chi^2(1) = 2.97$, $p = .085$, between financial worries and appraisal, $\chi^2(1) = 0.33$, $p = .563$, and between role conflict and fatigue, $\chi^2(1) = 1.10$, $p = .295$.

Figure 1a summarizes the results of the model separated for women and men; all path loadings were highly significant.

Figure 1

Paths of Relationships for Women and Men in the a) Overall Sample and b) Care-Taking Sample



Note. All path loadings were significant.

As expected, inter-role conflict was positively related to fatigue both directly and indirectly via a more negative appraisal of the situation. The differences between men and women in path loadings were rather small suggesting comparable processes working in the two groups.

Gender Differences for Relating Inter-Role Conflict, Appraisal, and Fatigue in the Care Sample

How do the results change when we only consider persons with care tasks? Figure 1b presents the SEM results for this subsample of 530 people. Again, the model provided an appropriate fit to the data, $\chi^2(146) = 262.81$, TLI = .949, CFI = .965, RMSEA = .039 with 90% CI [.032, .047]. The model explained 36% of variance in fatigue for women and 49% for men. This shows the importance of the included variables for explaining the psychological processes related to fatigue, particularly for caring men. As Figure 1b shows, several path coefficients differed between men and women. This moderator effect of gender reached significance for the relation between role conflict and appraisal, $\chi^2(1) = 6.10$, $p = .014$, and between financial worries and appraisal, $\chi^2(1) = 5.97$, $p = .015$, whereas it was non-significant for the relation between appraisal and fatigue, $\chi^2(1) = 2.82$, $p = .093$, and between role conflict and fatigue, $\chi^2(1) = 2.39$, $p = .122$. The total effect of role conflict on fatigue including both the direct effect as well as the indirect effect via appraisal was found to be statistically significant, men: effect = .469, 95% CI [.339, .616], women: effect = .323, 95% CI [.087, .404]. Concerning the mediation, the indirect effect of role conflict on fatigue was significant, men: effect = .090, 95% CI [.044, .208], women: effect = .077, 95% CI [.037, .122].

To sum up, the fundamental pattern of relationships, i.e. a positive relationship between role conflict and fatigue remained. The important finding emerging from this research is the pair of gender differences. Although men experience less role conflict than women on average, men coped significantly less well with it. When women and men experience the same amount of role conflict, men judge the situation as more stressful than women and are more exhausted by it. Additionally, men suffered more from financial worries than women. As such, men judged the COVID-19-situation as worse when it was related to worries about money or the fear of losing one's livelihood and consequently men showed higher fatigue than women when confronted with financial difficulties.

Discussion

It appears that we have to learn to live with COVID-19, to work and to manage our social relationships around the virus until medicine or vaccination might be found. Therefore, it is important to understand how the permanent challenges impact individuals' well-being. Especially under lockdown, individuals with care responsibilities felt emotionally exhausted and tired. In the daily press, women have been discussed as the group that has suffered most under these circumstances (e.g. Wenham, Smith, Davies, et al., 2020). Indeed, we found that parents, and particularly mothers, experienced greater inter-role conflicts and reported more fatigue than non-parents. In the non-parent sample, men

and women did not significantly differ regarding fatigue. In families with two parents present, women spent more time on childcare and household before the crisis and continue to do so during the lockdown (e.g. Alon et al., 2020). However, even though women carry the higher load, the proportion of hours that men spend on childcare and household increased during the lockdown (e.g. Alon et al., 2020; Bujard et al., 2020). When looking into the parent sample, we found that men and women coped differently with the situation. Our findings suggest that men who experience inter-role conflict evaluate the lockdown situation as much more negative than women with the same amount of role conflict. In accordance with the gender identity norm of men as the breadwinner, men suffered more from financial worries than women.

Limitations of the Study and Outlook

As a possible limitation of our research, the data is cross-sectional and was collected in Germany during the lockdown. Thus, it does not allow for causal inferences and we will see whether the effects that we observed in this exceptional situation might replicate in future studies. However, by establishing the proposed links, we have taken an important step toward understanding how fathers and mothers react in the face of multiple role challenges. That men suffer from inter-role conflict and more so than women is a novel contribution to the literature. Women might rely on their gender-related schemata, which also include that role conflicts are part of their life. Men, in contrast, seem less experienced and less able to manage the role of the care-taker and employee at the same time. This, however, was not directly tested in the sense that we asked to estimate the hours that participants spent on different tasks. We were interested in the subjective evaluation of the situation, because the subjective measures have been shown to be reliable predictors of well-being and often even better compared with objective data (for a meta-analysis, see Smith et al., 2012). It is the contextual and flexible nature of social cognitive processes that influence how people feel. However, future studies could compare these subjective evaluations with more objective measures and in addition measure perceived stereotypic expectations directly. Due to the urgency of the situation, the study was not pre-registered. This is another limitation of the study. However, the research question and material were shared on Open Science Framework during the data collection and, in addition, the data are now publicly available (see [Supplementary Materials](#)).

As with every crisis, the COVID-19 pandemic offers the opportunity to change the gender stereotypes, especially the persistent picture of men as the breadwinner. With more work flexibility, more men working from home and taking care of children and the household, new realities can be created and with them the chance to challenge historically developed gender-specific expectations (see Rudman & Glick, 2008). Instead of focusing only on the barriers that hinder women's advancement, we argue that we should focus more on men's underrepresentation in care-taking roles (see also Croft et

al., 2014). Thus, in order to increase the likelihood that fathers increase childcare and household activities in the future, norms and expectations, but also economic incentives related to classical gender roles have to change. This has to be recognized from policy makers and employers as organizational support is one of the most important sources for mitigating work-family conflicts (French et al., 2018).

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Data Availability: For this study, a dataset is freely available (Harth & Mitte, 2020).

Supplementary Materials

We provide the codebook of our variables as well as the data that had been analyzed for this paper (for access see [Index of Supplementary Materials](#) below).

Index of Supplementary Materials

Harth, N., & Mitte, K. (2020a). *Supplementary materials to "Managing multiple roles during the COVID-19 lockdown: Not men or women, but parents as the emotional 'loser in the crisis'"* [Research data]. OSF. <https://osf.io/tecnr>

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Appendix

Summary of the Preliminary Analyses for the Role Conflict Scale

Both for the care sample as well as the total sample the one factor model for the original 7 items did not fit the data appropriately, care sample: $\chi^2(28) = 175.52$, TLI = .842, CFI = .921, RMSEA = .101; total sample: $\chi^2(28) = 467.34$, TLI = .883, CFI = .942, RMSEA = .085). Factor loadings are presented in Appendix Table A1.

Table A1

Factor Loadings of the Inter-Role Conflict Scale for the Overall Sample and in the p Sample

Item	Non-caregiver sample		Care-giver sample	
	Men	Women	Men	Women
1	.578	.546	.597	.386
2	.569	.511	.577	.455
3*	.651	.702	.703	.650
4*	.822	.842	.864	.855
5	.684	.776	.591	.776
6*	.800	.865	.792	.889
7*	.733	.838	.798	.873

Note. Asterisk indicates items that were included in the final analysis.

Furthermore, because a comparison of SEM estimates between different groups requires measurement invariance for each variable, we tested whether latent constructs have the same meaning across sex according to the steps presented by Putnick and Bornstein (2016), i.e. we tested a) metric invariance, which is necessary for comparing regression weights, by constraining factor loadings as equal across groups, b) scalar invariance, which is necessary for comparing means, by constraining additionally intercepts as equal across groups, and c) full measurement invariance

by also constraining the other estimates as equal. We did not find across the seven items, for the total sample or for the care subsample, measurement invariance (metric invariance: $p < .001$ and $p = .004$, respectively, scalar invariance: $p < .001$, full measurement invariance: $p < .001$).

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