



Associations between Work–Family Balance, Parenting Stress, and Marital Conflicts during COVID-19 Pandemic in Singapore

Gerard Siew Keong Chung^{1,2} · Xi Wen Chan³ · Paul Lanier⁴ · Peace Yuh Ju Wong⁵

Accepted: 3 November 2022 / Published online: 12 November 2022

© The Author(s), under exclusive licence to Springer Science+Business Media, LLC, part of Springer Nature 2022

Abstract

As part of the “Circuit-breaker” social distancing measure to address COVID-19, the government of Singapore closed schools and workplaces from April to May 2020. Although this helped reduce transmission rates, for working parents, this period had been a challenging experience of working from home while providing care for children full-time. Problems in the work-home interface can have a significant impact on parenting and marital harmony. We analyzed data from 201 married and employed parents in Singapore using online surveys. Latent profile analysis was used to identify profiles of parents’ work–family balance (WFB) and spousal and employer support. Linear regression was used to examine links between profiles with parenting stress and marital conflicts. Results indicated three distinct profiles of WFB and social support levels: (a) Strong (43%), (b) Moderate (38%), and (c) Poor (19%). Mothers were more likely than fathers to be in the Moderate and Poor profiles. One key finding is that profiles characterized by poorer WFB were found to be linked with higher parenting stress and increased marital conflicts. There are important variations in parents’ abilities to balance work and family and levels of social support received. Lock-downs can affect parenting and marital harmony especially for parents with poor WFB and weak social support. Any attention given to supporting working parents is vital and urgent to counter any problems in the work–family interface during a lockdown.

Keywords Work–family balance · Singapore · Coronavirus COVID-19 pandemic · Parenting stress · Marital conflict · Telecommuting

Highlights

- A total of 258 parents were surveyed during a COVID-19 partial lockdown in Singapore about their experiences in parenting and working from home.
- Poorer work–family balance (WFB) was found to be linked with higher parenting stress and increased marital conflicts.
- Mothers were more likely than fathers to be in the Moderate and Poor profiles of WFB and social support levels.
- Any attention given to supporting working parents is vital and urgent to counter any problems in the work–family interface during a lockdown.

✉ Gerard Siew Keong Chung
gerard@nus.edu.sg

¹ Social Service Research Centre, National University of Singapore, Singapore, Singapore

² Singapore Institute for Clinical Sciences, Agency for Science, Technology, and Research (A*STAR), Singapore, Singapore

³ School of Applied Psychology, Griffith University, Griffith, QLD, Australia

⁴ School of Social Work, University of North Carolina at Chapel Hill, Chapel Hill, NC, USA

⁵ Faculty of Arts and Social Sciences, National University of Singapore, Singapore, Singapore

The coronavirus (SARS-CoV-2) has caused a pandemic of acute respiratory syndrome (COVID-19) with more than 6.6 million people infected as of June 5, 2020 (*The New York Times*, 2020). In Singapore, the first case of COVID-19 was detected in January 2020. By June 5, 2020, Singapore had more than 37,183 cases among its population of 5.7 million people. Because of the increasing rate of transmission over March 2020, on April 3, 2020, the Singapore government implemented a month-long safety distancing measure termed “Circuit-breaker” (*Channel News Asia*, 2020a). Under Circuit-breaker, schools, childcare facilities, businesses, and workplaces were closed and people were

encouraged to stay at home. As a result, many parents attempted to work from home remotely while providing care to their children. Subsequently, the Circuit-breaker was extended for a second month in May 2020 to further reduce transmission rates in the community (Mohan, 2020). Although this extension was necessary from a public health perspective, for parents it meant prolonging their telecommuting at a time when their resources, split between work and childrearing at home, are stretched to their limits.

Researchers such as Fisher et al. (2020) have described how physical distancing measures can be detrimental to work and family life. Others such as Coyne and team (2020) described the stressful “collision of roles, responsibilities, and expectations” (i.e., as a parent, spouse, employee, teacher) experienced by parents during this pandemic even as they face an uncertain future. As the stress of balancing work with full-time childrearing at home increases, some experts have warned about the risk for increased marital conflict and domestic violence during this period when families remain at home with reduced community contact (Campbell, 2020). Indeed, many countries impacted by COVID-19, including Singapore, are reporting an increase in cases of spousal violence and child abuse (Agrawal, 2020; *Channel News Asia*, 2020b).

The present study used indicators that measured working parents’ perceptions of support from their spouse and their employers and how well they are balancing work with family at home. Using these indicators, we identified profiles that represent how well parents are managing working at home with parenting during the COVID-19 pandemic in Singapore. We then examined sociodemographic and substantive characteristics that are associated with membership in these profiles. Lastly, we looked at how these profiles are associated with family outcomes that include parenting stress and marital conflict.

The Work–Home Resources Model

To understand the multi-faceted work and caregiving demands that working parents experienced during the Circuit-breaker in Singapore, we draw on ten Brummelhuis and Bakker’s (2012) work–home resources model. The work–home resources model applies Hobfoll’s (2002) conservation of resources (COR) theory to the work–home interface, describing the dual processes of work–home enrichment (“gain spirals”) and work–home interference (“loss spirals”). Specifically, work–home enrichment occurs when contextual resources from the work or home domain led to the development of personal resources, which subsequently facilitate outcomes in the other domain. For instance, growth in job skills or career advancements produce positive mood that improves working individuals’

emotional functioning at home. Conversely, work–home interference occurs when contextual demands in the work or home domain deplete personal resources, so these resources are not available for individuals to function optimally in the other domain (e.g., unconventional work hours increase individuals’ fatigue which in turn affect psychological availability to their family members).

The work–home resources model further distinguishes the types of resources based on the work–home interface. Contextual resources are external to the self and can be found in the social environment, for example, social support offered by others such as spousal support and employer support. Personal resources are proximate to the self, such as skills, knowledge, attention, and cognitive energy. Lastly, macro resources refer to characteristics of the larger economic, social, and cultural system in which an individual is embedded. Macro resources (e.g., social equality and public health) are more stable than other contextual resources and are not usually within the control of individuals.

Circuit-breaker has abruptly imposed remote working policies that require many working parents to work at home in Singapore, blurring the boundaries between their work and family roles (Borg et al., 2020; Restubog et al., 2020). The closure of childcare and schools has forced many of them to take on full-time child-caring responsibilities and home-school instruction, alongside adjusting to their new work-from-home arrangements. The work–home resources model tells us that when faced with intense work and family demands (or contextual demands), individuals are more prone to lose resources as they need to utilize their personal resources (e.g., physical energy, mental resilience, attention, and time) to deal with the demands (Hobfoll, 2002). When their personal resources are depleted, they are less likely to function well in both their work and home domains, leading to work-to-home or home-to-work interference (ten Brummelhuis & Bakker, 2012). Several studies in the work–family literature have examined how stressful experiences at work affect individuals’ functioning at home especially in the domains of parenting and marital relationships (Costigan et al., 2003; Fellows et al., 2016; Greenberger et al., 1994). For example, Costigan et al. (2003) found that poor interpersonal atmosphere and low job morale at the workplace increased negative parenting affect and behaviors among married couples transiting into parenthood. Greenberger et al. (1994) observed parent-child interactions and found decreased emotional availability of parents when job stressors (e.g., time urgency) increased. In a meta-analysis of 33 studies, work–family conflict was found to have a significant impact on marital quality which included marital satisfaction and relationship quality (Fellows et al., 2016). Correspondingly, in the present study, we focused on two home outcomes: parenting stress and marital conflict.

Parenting Stress

Parenting stress is defined as a psychological reaction when parents experience parental demands and they do not have the resources (e.g., energy, skills, and time) to meet these demands (Holly et al., 2019). Studying parenting stress is important because it is a key determinant of parenting behaviors (Abidin, 1992), especially harsh parenting that may lead to subsequent child maltreatment (Chung et al., 2022). Parenting stress is conceptually distinct from other forms of stress that a parent might experience (e.g., marital stress), and may be considered a home outcome in ten Brummelhuis and Bakker's (2012) work-home resources model. Specifically, parenting stress may arise from a parent's appraisal of contextual demands (or stressors) associated with their parenting role, such as insufficient personal resources (e.g., depleted physical energies, time, and parenting skills) to meet the demands of caring for young children.

Marital Conflict

Marital conflict, also broadly referred to as marital discord, tends to refer to the conflict, disharmony, or lack of parental agreement between married parents of children (Reid & Crisafulli, 1990). Marital conflict can range from verbal to physical abuse, and is generally associated with poorer health outcomes for the couples involved (Shrout et al., 2019). In the work-home resources model, marital conflict can be considered a home outcome (ten Brummelhuis & Bakker, 2012). Similar to parenting stress, the likelihood of marital conflict occurring during Circuit-breaker is heightened because remote working and home-based learning are additional contextual demands that working parents have to deal with, increasing the tendency for their personal resources to be depleted. For example, parents who have to supervise their school-age children's home-based learning on top of working remotely would have utilized much of their physical and cognitive energies at the end of the day. The reduced availability of resources, in turn, leaves fewer resources for parents to communicate with their spouses or contribute to household chores, potentially leading to conflict between both parties (see Carroll et al., 2013; Stevens et al., 2001).

Spousal Support, Employer Support, and Work-Family Balance

Informed by the work-home resources model, we examine spousal support, employer support, and work-family balance as predictors of parenting stress and marital conflict outcomes.

Spousal support and employer support are contextual resources that are present in the home and work environments respectively (ten Brummelhuis & Bakker, 2012). Spousal support, which is a form of family support, typically includes enriching experiences such as a spouse listening to your work experiences or stepping in with household chores (Chan et al., 2020). Prior studies by Gayathri and Karthikeyan (2016) and Siu et al. (2010) found that spousal support facilitated home-to-work enrichment, indicating that individuals who received spousal support were able to use these resources to buffer any stress that arises, or accumulate other resources (e.g., energy) to perform their parental and spousal responsibilities (Chan et al., 2020). Aycan and Eskin's (2005) study also indicated a direct positive association between spousal support and marital satisfaction. Therefore, despite the sudden changes brought about by Circuit-breaker, we hypothesize that working parents who receive spousal support are less likely to experience parenting stress and marital conflict.

Unlike spousal support which stems from the home domain, employer support comes from the work domain. Employer support, a form of organizational support, typically refers to family-friendly policies and practices (e.g., flexible work arrangements) or the extension of organizational benefits to family members (Chan et al., 2020). Generally, studies have found that organizational support led to reduced work-to-home interference and increased work-to-home enrichment, particularly for women (Clark et al., 2017; Lapierre et al., 2018). Interestingly, a study by Aycan and Eskin's (2005) found that employer support reduced work-to-home interference for men but not for women. Similar to spousal support, we also hypothesize that working parents who receive employer support during Circuit-breaker are less likely to experience parenting stress and marital conflict, as they can draw on their personal resources to become involved parents and spouses.

Lastly, we also examine work-family balance as an antecedent of parenting stress and marital conflict. Defined as "the individual perception that work and non-work activities are compatible and promote growth in accordance with an individual's current life priorities" (Kalliath & Brough, 2008, p. 326), work-family balance has been shown to lead to increased family satisfaction and functioning (Brough et al., 2020; Chan et al., 2016). Even though the popular media has often reported that work-family balance has diminished in light of the COVID-19 pandemic and Circuit-breaker, we draw particular attention to the current conceptualization of work-family balance which emphasizes perceptions as opposed to objective measures of "balance". Importantly, in adopting this conceptualization of work-family balance, we recognize that perceptions of "balance" are highly subjective and

malleable, and tend to change over time due to different life priorities. Based on the work–home resources model, work–family balance can also be considered a contextual resource that promotes the accumulation of personal resources, leading to work–home enrichment (ten Brummelhuis & Bakker, 2012). Therefore, we hypothesize that working parents with better work–family balance are less likely to experience parenting stress and marital conflict during Circuit-breaker.

Patterns of Work–Family Balance, Spousal, and Employer Support

Existing studies have mostly focused on the main effects of work–family balance, spousal, and employer support on home outcomes. Specifically, they have either aggregated the scores of these predictors or statistically control the influence of one or more predictors to study the main effect of another (e.g., Aycan & Eskin, 2005; Clark et al., 2017). Far less is known about how patterns of these predictors can take form and their combined influence on home outcomes. This gap in research is unfortunate because it is realistic to expect that working parents experience varying levels of work–family balance, spousal and employer support (this is also suggested in the work–home resources model). By identifying disparate patterns of working parents' experiences of work–family balance, and support from spousal and employer, this may provide a more accurate understanding of their joint impact on home outcomes.

Hypotheses of Study

To identify these patterns, we used latent profile analysis (LPA) to identify latent profiles of working parents with similar ratings on the three indicators of work–family balance, spousal support, and employer support. We expected to find a profile of parents with higher ratings on all three indicators and a profile that reported lower ratings on all indicators. Second, we examined the associations between these latent profiles with sociodemographic variables and parents' perceived impact of COVID-19 on their finances and psychological health. We expect that parents who are more affected by COVID-19 would more likely be associated with membership in latent profiles that are characterized by lower ratings on work–family balance and support from spousal and employers. Third, we examined the relationships between latent profiles and the two outcomes: parenting stress and marital conflict. We hypothesized that parents with membership in profiles that are characterized by higher work–family balance and better spousal and employer support would report lower levels of

parenting stress and lower likelihood of marital conflict during the period of Circuit-breaker.

Method

Data and Sample

Data were analyzed from an online survey that we created and disseminated to parents in Singapore from April 22, 2020, to May 5, 2020. To be eligible for the study, respondents had to be at least 18 years old, living in Singapore with at least one child at most 12 years old, and be Singaporean citizens or permanent residents. Only one respondent from each household had completed the survey. The online survey was disseminated using a website link hosted on a Qualtrics server. We reached potential respondents via advertisements on Facebook and online groups and community organizations associated with families in Singapore.

In total, 268 respondents completed the survey. Because of the present study's aims, we excluded (a) caregivers who were not parents (seven excluded), (b) parents who were not married (two excluded), and (c) parents who were not employed (58 excluded). This left us with an analytical sample of 201 respondents. The participant information sheet provided a detailed explanation of the study and we obtained participant consent from all respondents. This study has been approved by the Institutional Review Board (IRB) at the University of North Carolina at Chapel Hill. No incentives or compensations were provided to respondents for participating in the survey.

Measures

The survey consisted of 50 questions and took about 12 min for the respondents to complete. Survey questions were related to work, family life, parenting, and demographic information. Descriptive statistics of the measures are provided in Table 1.

Latent profile indicators

Information about work–family balance, support in work from spouse, and support from employer were measured using three items constructed for the survey. Respondents were asked the following three statements: (a) "I can balance my work at home and parenting well", (b) "I get enough support from my spouse while working at home", and (c) "My employer gives me flexibility and support that helps my parenting". Respondents rated their agreement to the statements on a 4-point Likert scale ranging from 1 = Strongly disagree to 4 = Strongly agree.

Table 1 Sample characteristics and key variables ($n = 201$)

	<i>N</i>	%	<i>M</i>	<i>SD</i>
Parent (natural/adoptive/stepparent)				
Mothers	78	39		
Fathers	123	61		
Parent race				
Chinese	163	81		
Malay	19	9		
Indian	10	5		
More than one race/others	9	4		
Parent age (years)				
18–35	74	37		
36–40	61	30		
41–45	37	18		
46–55	29	14		
Parent education				
Non-university	27	13		
University	174	87		
Monthly household income (Singapore \$)				
<\$5000	31	15		
\$5001–\$8000	40	20		
>\$8000	130	65		
Youngest child age (years)				
0–3	93	46		
4–7	57	28		
8–12	51	25		
No. of children at home (age 12 or younger)				
1	99	49		
2 or more	102	51		
No. of caregivers at home				
2 or less caregivers	114	57		
More than 2 caregivers	87	43		
Domestic helper at home				
Yes	78	39		
No	123	61		
Impact of COVID-19			1.97	0.6
Marital conflict ($N = 194$)				
No increase	115	59		
Yes increase	79	41		
Parenting stress			2.43	0.46

Marital conflict

Information about verbal arguments or conflict with spouse in the past weeks was measured using one binary item. Parents were asked if there had been an increase in verbal arguments or conflicts with their spouse in the past weeks and they answered using two possible responses: 1 = Yes, increase and 0 = No increase. We acknowledge that the use of a binary item to measure any increase in marital conflicts

may not capture different aspects of marital conflicts (e.g., negative emotional communication, differences over money management or disagreements in use of leisure time and childrearing; see Shrout et al., 2019) and do not allow for a range of responses. Our subsequent results for marital conflict should be interpreted in view of this limitation.

Parental Stress Scale (PSS)

The PSS measures an individual's perceptions and feelings of stress directly associated with being a parent (Berry & Jones, 1995). The PSS scale has been found to have strong psychometric properties, including an internal reliability of Cronbach's $\alpha = 0.89$ in a validation study with a Hong Kong-based Chinese sample (Cheung, 2000), and strong criterion validity with other parental stress scales such as the Parenting Stress Index (Berry & Jones, 1995). Parents responded to statements about their parenting over the past weeks on a 4-point Likert scale (responses ranging from 1 = Never to 4 = Often). Examples of these statements included: "Caring for my children take more time and energy than I have to give"; "I sometimes worry whether I am doing enough for my child(ren)"; and "I feel overwhelmed by the responsibility of being a parent". A composite score was created by averaging the items ($\alpha = 0.74$), with higher scores indicating higher parental stress ($M = 2.43$, $SD = 0.46$).

Coronavirus Impacts Questionnaire (CIQ)

The CIQ was developed as one of several social-psychology-relevant questionnaires to measure how people in the United States have been impacted by COVID-19 and social distancing (Conway et al., 2020). Confirmatory factor analysis indicated an excellent 3-factor structure for the 9-item version of CIQ. The scale had good face validity and had strong internal reliability within each factor (α scores ranged from 0.76 to 0.93). The three factors of the CIQ are (a) financial impact, (b) resource impact, and (c) psychological impact. Examples of items from each of the factors are "The Coronavirus (COVID-19) has impacted me negatively from a financial point of view", "I have had a hard time getting needed resources (food, medicine) due to the Coronavirus (COVID-19)", and "The Coronavirus (COVID-19) outbreak has impacted my psychological health negatively". Respondents responded to these statements on a 4-point Likert scale ranging from 1 = Not true of me at all to 4 = Very true of me. In this study, we used the shortened 6-item version of the CIQ. The shortened version contains two items from each of the three factors (i.e., financial, resource, and psychological impact). A composite score was created by averaging the six items ($\alpha = 0.73$), with higher scores indicating that the respondent had

experienced a greater overall impact on their life due to the pandemic ($M = 1.97$, $SD = 0.60$).

Controls

Using various sociodemographic variables (Table 1), we controlled for variations in outcomes that may be attributed to differences in respondents' background characteristics. These included parents' sex (binary variable where 0 = female and 1 = male), ethnic group (i.e., Chinese, Malay, Indian; recoded into a binary variable where 0 = non-Chinese and 1 = Chinese because of small numbers), age (continuous variable in years), educational level (binary variable where 0 = less than university degree and 1 = university degree), monthly household income (continuous variable in Singapore dollars), number of caregivers at home (binary variable where 0 = two or less caregivers and 1 = more than two), presence of a domestic helper in the household (binary variable where 0 = Yes and 1 = No), age of the child(ren), and the number of children and caregivers in the household (count variable types).

Analytical Method

Latent profile analysis (LPA) was used to identify profiles of work–family balance, spousal support, and employer support using continuous indicators. LPA is a person-centered method that is appropriate for exploring unobserved heterogeneity or potential subgroups in samples (Chung et al., 2020; Kainz et al., 2018). In the present study, up to five latent profile solutions were estimated to identify the optimal solution. The Bayesian information criterion (BIC) was used as a measure of the relative fit across different profile solutions (Schwarz, 1978) with lower values indicating better relative model fit (Collins & Lanza, 2010). The Bootstrap Likelihood Ratio Test (BSLRT) was also used to contrast the fit of neighboring profile solutions (i.e., comparing the k -profiles model with the $k-1$ -profiles model; Berlin et al., 2014). p values derived from the BSLRT were used to determine if there is a statistically significant improvement in fit for the inclusion of an additional profile. The sample size of the smallest profile was also evaluated since a small sample size profile (i.e., <1% and/or <25) may have less precision and low power (Berlin et al., 2014). Entropy and mean posterior probability values were also examined to assess the classification certainty associated with each profile solution; values closer to 1 reflect better classification certainty (Berlin et al., 2014).

After identifying the optimal profile solution, multinomial logistic regression was used to test associations between membership in latent profiles (categorical variable) and a set of sociodemographic covariates and impact of COVID-19 (this also serves as a form of construct

validation for the selected latent profile solution). Then, to examine the associations between home outcomes with latent profiles: (a) multiple linear regression was used to model the associations between parental stress and the latent profiles while (b) logistic regression was used to model the associations between marital conflict (binary outcome variable) and the latent profiles. Sociodemographic covariates were included in both models.

There were no missing data for all variables used in the analysis. Mplus 8.4 (LPA) and Stata 16.1 (all other analyses) software packages were used for the analyses.

Result

Table 1 shows the sociodemographic characteristics of this sample of working and married parents. There were more fathers (61%) than mothers. Most of the parents were Chinese (81%) and their ages mostly 18–35 years old (37%). Most parents had at least a university degree (87%). A total of 65% of the parents earned a monthly household income more than S\$8000 (about USD\$5600). With the median income of a resident household in Singapore in 2019 at about \$7981 according to the Singapore Department of Statistics (DOS, 2020), this sample consisted mostly of families with financial income more than 50% of households in Singapore. The age of the youngest children was mostly 0–3 years (46%). A total of 51% of parents had two or more children age 12 or younger and 57% had up to 2 caregivers in the household. A total of 39% of parents reported having a domestic helper at home.

We estimated one to five latent profile solutions to determine the optimal solution. Table 2 shows the results from this profile enumeration process. The BIC values decreased from one profile to three profiles but increased from four profiles to five profiles, indicating that a larger number of profiles yielded a better fit but only up to three profiles. The BSLRT test was statistically insignificant ($p = 0.15$) when assessing the addition of the fourth profile, indicating that the three-profile solution might be more optimal. Furthermore, the four-profile solution produced one profile with a small sample size (i.e., $n = 8$; about 4% of the full sample), indicating potential over-extraction (Petras & Masyn, 2010) and vulnerability to low power (Berlin et al., 2014). The three-profile solution had the highest entropy value of 0.99 indicating strong classification certainty. The mean posterior probabilities values ranged from 0.99 to 1.00, indicating strong class separation (Asparouhov & Muthén, 2014). Thus, the three-profile solution was selected as optimal.

Table 3 shows the average levels of work–family balance, spousal support, and employer support across the three profiles expressed in raw means and standardized Z

Table 2 Selecting an optimal profile solution: model fit and class enumeration

Profiles	BIC	BSLRT	Entropy	Smallest, <i>n</i> (%)	Mean posterior probabilities				
					1	2	3	4	5
1	1714.67	–	–	–	–	–	–	–	–
2	1387.44	<0.001	0.78	98 (49)	0.95	0.93	–	–	–
3	1333.05	<0.001	0.99	38 (19)	1.00	0.99	1.00	–	–
4	1535.94	0.15	0.98	8 (4)	1.00	0.99	0.98	0.93	–
5	1673.45	0.50	0.88	9 (4)	1.00	0.94	0.83	0.97	0.94

Bold items correspond with the solution selected as optimal

BIC Bayesian Information Criterion, BSLRT Bootstrap LRT, LRT likelihood ratio test

scores (i.e., sample mean set to 0 with a standard deviation of 1; Bauer & Shanahan 2007). Figure 1 visually plots the scores. Results in Table 3 indicate substantive differences across each latent profile in terms of raw means and standardized Z scores (i.e., standard deviation units). In Profile 1 (Poor Support and Balance, $n = 38$, 19%), parents reported the lowest levels of support from spouses ($Z = -0.74$) and employers ($Z = -0.66$) as well as poorest work–family balance ($Z = -1.55$). In Profile 2 (Moderate Support and Balance, $n = 76$, 38%), parents reported levels of spousal ($Z = -0.17$) and employers' support ($Z = -0.13$) and work–family balance ($Z = -0.35$) that are slightly lower but close to the sample means. In Profile 3 (Strong Support and Balance, $n = 87$, 43%), parents reported the highest levels of support from spouses ($Z = 0.47$) and employers ($Z = 0.41$) as well as the strongest balance between work and family ($Z = 0.99$). Mean difference tests in Table 3 indicate that the three profiles differ significantly with Profile 1 having the lowest means and Profile 3 with the highest means compared to the other profiles.

Table 4 shows the results of a multinomial logistic regression used to examine the associations between latent profile membership and a set of sociodemographic variables and the impact of COVID-19. Profile 3 (Strong Support and Balance) was chosen as the reference profile to which other profiles were compared across associations with the model covariates. In this step of the multinomial logistic analysis, we treated the latent profiles as an observed variable and used the variable to examine its associations with auxiliary variables (also known as the classify-analyze approach) instead of the 3-step procedure as suggested by Bolck et al. (2004). While the latter procedure can account for classification errors, we think that this is unlikely since our high entropy value of 0.99 indicates clear profile separation for our 3-profile model.

Parents' age, race, education, family income, any domestic helpers, and the number of caregivers in the household did not statistically predict membership in any of the profiles. For mothers relative to fathers, the relative risk for membership in Profile 1 (Low Support and Balance) and Profile 2 (Moderate Support and Balance) would be

expected to increase by a factor of 6.35 and 3.05, respectively, while holding the other variables in the model constant. In other words, mothers are more likely than fathers to be in the profiles characterized by low and moderate levels of spousal and employer support and work–family balance (Profile 1 and 2).

With a year increase in child's age, the relative risk of being in Profile 1 or 2 would decrease by a factor of 0.60 and 0.72, respectively, holding other variables in the model constant. In other words, parents with older children are less likely to be in profiles characterized by low and moderate levels of support and balance (Profile 1 and 2). Parents who reported a greater impact of COVID-19 were more likely to be in Profile 2 (increase by a factor of 2.78) than in Profile 3. Parents with more children in the household were also more likely to be in Profile 2 (factor of 1.63) than to be in Profile 3. In summary of the results in Table 4, parents in Profile 3 (i.e., those who reported highest levels of spousal and employer support and work–family balance) were more likely to be fathers, were impacted lesser by COVID-19, had older children, and had lesser number of children at home.

With respect to our second study aim, Table 5 shows the results from multiple linear regression and logistics regression models used to examine the associations between home outcomes and latent profiles controlling for socio-demographic covariates. For parenting stress outcome, parents in Profile 1 ($B = 0.39$, $p < 0.001$) and Profile 2 ($B = 0.32$, $p < 0.001$) had higher parenting stress than Profile 3. For marital conflict, parents in Profile 1 (OR = 2.62, $p < 0.05$) and Profile 2 (OR = 2.62, $p < 0.001$) were more likely than parents in Profile 3 to report an increase in marital conflict.

Discussion

As part of the Circuit-breaker measure, the government of Singapore has closed schools, childcare facilities, and workplaces for almost two months, from April 2020 to May 2020. The goal of Circuit-breaker is to reduce the

Table 3 Latent profiles of work–family balance, spousal support, and employer’s support

Indicators	Overall sample (n = 201)			Profile 1 Poor support and balance (n = 38 or 19%)			Profile 2 Moderate support and balance (n = 76 or 38%)			Profile 3 Strong support and balance (n = 87 or 43%)			Class differences <i>p</i> < 0.05
	M	SD	Mean Z score	M	SE	Mean Z score	M	SE	Mean Z score	M	SE	Mean Z score	
	Spousal support	2.94	0.77	-	2.37	0.03	-0.74	2.81	0.08	-0.17	3.30	0.08	
Employer’s support	2.89	0.75	-	2.40	0.02	-0.66	2.79	0.07	-0.13	3.20	0.07	0.41	1 < 2, 3; 2 < 3
Work–family balance	2.30	0.84	-	1.00	0.04	-1.55	1.99	0.11	-0.35	3.13	0.11	0.99	1 < 2, 3; 2 < 3

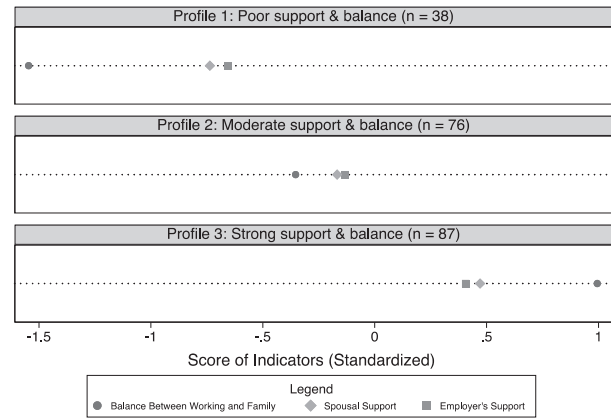


Fig. 1 Latent profile solution (3-Profile Model) and their scores by profile. Standardized at sample *M* = 0 and *SD* = 1

transmission of COVID-19 in the community. However, for many working parents, this period has been a challenging experience of working remotely from home while providing care for their children full-time. In this study, informed by the work–home resources model, we first identified patterns of working parents’ perceived levels of work–family balance, spousal support, and employer support. We had expected to find different profiles of high and low levels of work–family balance and support. We hypothesized that parents who experienced a greater impact of COVID-19 would more likely be classified in profiles characterized by lower levels of work–family balance, spousal and employer support. Finally, we examined associations between these profiles and home outcomes. We expected that parents in profiles characterized by higher levels of work–family balance and support would report lower levels of parental stress and lesser marital conflict during the period of Circuit-breaker. All our hypotheses were supported by the results of our study.

First, we found three distinct profiles indicating notable variations in the levels of work–family balance, and support that working parents have received from their spouses and employers. The two most prevalent profiles are the Strong Support and Balance profile and the Moderate Support and Balance profile. In the Strong Support and Balance profile, working parents are characterized by higher than average levels of work–family balance and support from spouses and employers. Parents in the Moderate Support and Balance profile are characterized by lower but close to the average levels of work–family balance and supports. On the other hand, the Poor Support and Balance profile is the least prevalent with parents in this profile reporting the lowest level of work–family balance and support from spouses and employers.

These distinct profiles point to heterogeneity in work–family balance and supports experienced by parents during the Circuit-breaker. Though popular media in

Table 4 Multinomial logistic regression for variables predicting latent profile membership

Predictor	Poor (Profile 1) vs. strong (Profile 3) support and work–family balance		Moderate (Profile 2) vs. strong (Profile 3) support and work–family balance	
	RRR	95% CI	RRR	95% CI
Impact of COVID-19	1.87	[0.86, 4.06]	2.78***	[1.48, 5.23]
Parent age	0.82	[0.48, 1.39]	1.08	[0.74, 1.58]
Parent sex (females) ^a	6.35***	[2.28, 17.72]	3.05**	[1.47, 6.32]
Parent race (Chinese) ^b	2.14	[0.63, 7.25]	1.84	[0.68, 5.01]
Parent education (university degree) ^c	0.58	[0.13, 2.52]	0.57	[0.17, 1.89]
Family income monthly (Singapore dollars)	0.96	[0.74, 1.24]	1.02	[0.82, 1.29]
Youngest child age	0.60**	[0.41, 0.86]	0.72*	[0.55, 0.94]
Domestic helper at home (N) ^d	1.40	[0.42, 4.65]	2.43	[0.96, 6.13]
No. of children in household	1.06	[0.57, 1.95]	1.63*	[1.01, 2.63]
No. of caregivers in household	0.50	[0.16, 1.59]	0.99	[0.41, 2.36]
Constant	0.42	[0.01, 34.71]	0.01*	[0.002, 0.42]

Constant = estimates baseline relative risk for each outcome

RRR relative risk ratios

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

$\chi^2 (20, n = 201) = 62.81$ ***

^aReferent category: male

^bReferent category: non-Chinese

^cReferent category: non-university

^dBase category: yes, there is a domestic helper at home

Table 5 Regression of parental stress and marital conflict on latent profiles

Variable	Parenting stress			Marital verbal conflicts		
	B	SE	95% CI	OR	SE	95% CI
Latent profiles (Profile 3) ^a						
Profile 1	0.39	0.09***	[0.21, 0.57]	2.62	1.23*	[1.04, 6.58]
Profile 2	0.32	0.07***	[0.18, 0.47]	2.62	1.00**	[1.24, 5.54]

N = 201 for parental stress; 194 for conflict

All models control for socio-demographics covariates

OR odds ratio, SE standard errors, CI confidence interval

Profile 1 = poor support and balance

Profile 2 = moderate support and balance

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

^aReferent category: Profile 3 (strong support and balance)

Singapore has reported that work–family balance has diminished for working parents during this period of pandemic and Circuit-breaker (*The Straits Times*, 2020b), some parents have found ways to balance telecommuting with family responsibilities. At the same time, they received strong organizational support from employers indicating that certain companies here are empathic with the difficulties faced by working parents and have extended family-friendly

policies and practices to their employees during this pandemic. The Circuit-breaker is an unprecedented event in Singapore where before this, most working parents do not work from home. But since this pandemic and the Circuit-breaker, more parents have become open to the idea of working from home because they have experienced good support and managed to balance work with their family responsibilities well. This could explain why in a survey of 9000 working individuals during the Circuit-breaker, about 15% of respondents expressed that they want to continue working entirely from home while 75% preferred varying amounts of time working from home. Only 10% expressed that they do not want to work from home at all (*The Straits Times*, 2020a).

It is also equally informative with regard to the types of profiles that we did not find in the present study. First, we did not find any profiles characterized by opposite levels of work–family balance and supports (e.g., high scores of work–family balance but low scores across supports). This is consistent with the work–home resources model where higher contextual resources (i.e., various types of support) are expected to contribute to higher work–family balance. This finding also gives construct validity to the latent profiles produced in the analysis. Second, we also did not find a profile where there are opposite levels of support (i.e., high

employer support but low spousal support). One possible explanation is that family members and employers are more responsive and ready to provide support given the challenges during this pandemic. Taken together, all three latent profiles suggest wide variations and with most parents in profiles characterized by moderate to strong levels of work–family balance and support from spouses and employers.

Working parents in the Strong Support and Balance profile were more likely to be males than females than in other profiles indicating that gender differences in work–family balance, spousal support, and employer support persist during the Circuit-breaker. A recent study with families in the United Kingdom found that working mothers spent more time in childrearing and home-schooling than working fathers during the pandemic (Ferguson, 2020). Existing studies show that this could be due to the differences in employers' expectations for male and female employees when given flexible working arrangements. Men are expected to use flexible working to improve work performance (e.g., increase working hours) while women are expected to increase their familial responsibilities when working flexibly, which potentially reduces their work–family balance (Chung & van der Lippe, 2018). Parents in the Strong Support and Balance profile are also more likely to have older children than parents in the other profiles. Parenting younger children is more challenging because of the stressors and emotional demands related to nurturing and guiding a child at this developmental stage. Similarly, parents with fewer children are more likely to be in the Strong Support and Balance profile but only when compared to Moderate Support and Balance profile. Thus, for parents with younger children and more children in the households, the needs for support are higher and, consequently, it is more difficult to balance work with parenting during Circuit-breaker.

Parents who because of COVID-19 experienced reduced finances, increased difficulties in accessing resources, or poorer psychological health were less likely to be classified in the Strong Support and Balance profile. Indeed, because of the impact of the pandemic and Circuit-breaker measures on Singapore's economy, many families are experiencing financial difficulties as a result of job losses and reduced wages (Tang, 2020). Parents' ability to access support from their support networks (e.g., neighbors, religious communities, relatives) are also disrupted. Social isolation as a result of Circuit-breaker can also be detrimental to mental health which in turn affects parents' ability to manage work and parenting (Usher et al., 2020).

The key finding in the present study is that poorer home outcomes were associated with membership in profiles characterized by levels of poorer work–family balance and support from spouses and employers. Unlike previous studies that examined main effects of a predictor while

controlling out other predictors, the present study looks at the combined effects of work–family balance, spousal and employer support on home outcomes. Specifically, we find that parenting stress and marital conflicts are higher during the period of Circuit-breaker when the levels of work–family balance and supports are lower combined across all indicators. Prolonged marital conflict may lead to intimate partner violence while parenting stress is a determinant of harsh parenting behaviors and are risk factors for subsequent child maltreatment (Chung et al., 2022; Lee et al., 2014). These findings concur with the work–home resources model where the interplay between contextual resources and personal resources determine either work–home interference or work–home enrichment whose effects spillover into working individuals' functioning in the home domain.

Limitations

This study has some limitations that should be considered in the interpretation of the findings. First, the married and working parents in this sample were mostly Chinese, parents in their 20s to 30s, financially well-to-do, and highly educated. Thus, the findings in this study may not be valid for all families in Singapore. Our findings may also not apply to families with children of special needs and disabilities who may have unique needs and circumstances. Second, LPA was analyzed using cross-sectional data. Thus, patterns identified may only represent parents' momentary views of work and family life in the past weeks. We also could not determine respondents' functioning in the pre-Circuit-breaker period but our data collection depends on parents' retrospective assessment of change in outcomes. Third, we certainly cannot explain the full matrix of associations between work and home outcomes. Other possible predictors include children's behaviors, and respondents' intra-individual characteristics including parenting self-efficacy and marital satisfaction. Fourth, we use single items to measure the key constructs and future studies should use standardized instruments. In particular, the binary item used to measure marital conflicts may not capture different aspects of marital conflicts (e.g., disagreements in partners' use of leisure time or money management; see Shrout et al., 2019) and does not allow for a range of responses. Our research findings for marital conflicts should be interpreted in light of this limitation. Fifth, the use of person-oriented methods, including LPA, has been criticized for its "uncertainty about the ontological nature of emergent latent classes" (Jensen, 2019, p. 399). Hence, the latent profiles identified in this study should be considered as possible variations in the larger population and not necessarily as true subpopulations.

Practice Implications

Despite the limitations, our study provides timely insights into the interplay between the domains of work and family during a prolonged period when families are restricted to their homes because of the COVID-19 pandemic. First, policymakers and practitioners should be mindful of the heterogeneity in levels of work–family balance and support received by working parents during the Circuit-breaker. In fact, we found in this study that most working parents are receiving good support from employers and spouses and balancing their work with family roles well. These patterns are contrary to what may have been portrayed in the media that there has been significant diminishing of work–family balance among working parents. With the transmission of COVID-19 still high in the community, telecommuting will be a way of life for many parents in Singapore for an extended period. Help for families would then need to be tailored to their different needs.

Policymakers in Singapore have recently suggested introducing flexi-hours work models and giving government-paid childcare leave to parents who have used up their annual allotment of leave (*The Straits Times*, 2020b). However, specific considerations need to be given to the needs of parents in the Poor Support and Balance profile. Parents in this profile are likely to be mothers than fathers and have younger children in age compared to the parents in other profiles with better work and family balance and support. Gender differences in support given by employers and spouses are, according to the work–home resources model, a function of macro resources embedded in the characteristics of the larger economic, social, and cultural system. Addressing the issue of gender differences is beyond the individuals' locus of control and would require policy and organizational actions. The impact of COVID-19 on parents' finances and psychological health was also associated with how well parents can balance their work and family. These are important areas that assistance can be given to support working parents.

Any attention given to supporting working parents is vital and urgent because the work–family interface during this time of Circuit-breaker has been shown in this study to have a substantial impact on parental functioning and marital harmony. Specifically, increased parenting stress and marital conflicts were found to be more likely among parents struggling with work and family and receiving lower levels of support. Since working parents are unable to leave their homes during the Circuit-breaker, measures to increase the accessibility of online marital counseling and self-directed parenting interventions can help reduce marital conflict and parenting stress (see Chung et al., 2022). Finally, policymakers, community organizers, and

practitioners need to be aware that while public health safety measures like Circuit-breaker can be effective in reducing the transmission of viruses, they can be detrimental to family life.

Compliance with Ethical Standards

Conflict of Interest The authors declare no competing interests.

References

- Abidin, R. R. (1992). The determinants of parenting behavior. *Journal of Clinical Child Psychology*, 21(4), 407–412. https://doi.org/10.1207/s15374424jccp2104_12.
- Agrawal, N. (2020, April 7). The Coronavirus Could Cause a Child Abuse Epidemic. *The New York Times*. <https://www.nytimes.com/2020/04/07/opinion/coronavirus-child-abuse.html>.
- Asparouhov, T., & Muthén, B. (2014). Auxiliary variables in mixture modeling: Three-step approaches using Mplus. *Structural Equation Modeling: A Multidisciplinary Journal*, 21(3), 329–341. <https://doi.org/10.1080/10705511.2014.915181>.
- Aycan, Z., & Eskin, M. (2005). Relative contributions of childcare, spousal support, and organizational support in reducing work–family conflict for men and women: The case of Turkey. *Sex Roles*, 53(7), 453–471. <https://doi.org/10.1007/s11199-005-7134-8>.
- Bauer, D. J., & Shanahan, M. J. (2007). Modeling complex interactions: Person-centered and variable-centered approaches. In T. Little, J. Bovaird, & N. Card (Eds.), *Modeling contextual effects in longitudinal studies* (pp. 255–283). Routledge: New York.
- Berlin, K. S., Parra, G. R., & Williams, N. A. (2014). An introduction to latent variable mixture modeling (part 1): Overview and cross-sectional latent class and latent profile analyses. *Journal of Pediatric Psychology*, 39(2), 174–87. <https://doi.org/10.1093/jpepsy/jst085>.
- Berry, J. O., & Jones, W. H. (1995). The Parental Stress Scale: Initial psychometric evidence. *Journal of Social and Personal Relationships*, 12(3), 463–472. <https://doi.org/10.1177/0265407595123009>.
- Bolck, A., Croon, M., & Hagenaars, J. (2004). Estimating latent structure models with categorical variables: One-step versus three-step estimators. *Political Analysis*, 12(1), 3–27.
- Borg, A., den Dulk, L., Lewis, S., & Santos, C. (2020). Community, work and family in diverse contexts and changing times. *Community, Work & Family*, 23(5), 497–502. <https://doi.org/10.1080/13668803.2020.1832264>.
- Brough, P., Timms, C., Chan, X. W., Hawkes, A., & Rasmussen, L. (2020). Work–life balance: Definitions, causes, and consequences. In T. Theorell (Ed.), *Handbook of socioeconomic determinants of occupational health: From macro-level to micro-level evidence* (pp. 1–15). Springer International Publishing. https://doi.org/10.1007/978-3-030-05031-3_20-1.
- Campbell, A. M. (2020). An increasing risk of family violence during the COVID-19 pandemic: Strengthening community collaborations to save lives. *Forensic Science International: Reports*, 2, 100089. <https://doi.org/10.1016/j.fsir.2020.100089>.
- Carroll, S. J., Hill, E. J., Yorgason, J. B., Larson, J. H., & Sandberg, J. G. (2013). Couple communication as a mediator between work–family conflict and marital satisfaction. *Contemporary Family Therapy*, 35(3), 530–545. <https://doi.org/10.1007/s10591-013-9237-7>.
- Chan, X. W., Kalliath, P., Chan, C., & Kalliath, T. (2020). How does family support facilitate job satisfaction? Investigating the chain

- mediating effects of work–family enrichment and job-related well-being. *Stress and Health*, 36(1), 97–104. <https://doi.org/10.1002/smi.2918>.
- Chan, X. W., Kalliath, T., Brough, P., Siu, O.-L., O’Driscoll, M. P., & Timms, C. (2016). Work–family enrichment and satisfaction: The mediating role of self-efficacy and work–life balance. *The International Journal of Human Resource Management*, 27(15), 1755–1776. <https://doi.org/10.1080/09585192.2015.1075574>.
- Channel News Asia. (2020a, April 3). PM Lee’s address on enhanced measures to deal with COVID-19 situation in Singapore. *Channel News Asia*. <https://www.channelnewsasia.com/news/singapore/coronavirus-covid-19-lee-hsien-loong-update-address-nation-tv-12606328>.
- Channel News Asia. (2020b, April 23). MSF keeping “close watch” on domestic abuse cases as more reach out for help over circuit breaker period. *Channel News Asia*. <https://www.channelnewsasia.com/news/singapore/covid-19-msf-domestic-abuse-violence-cases-circuit-breaker-12671330>.
- Cheung, S.-K. (2000). Psychometric properties of the Chinese version of the Parental Stress Scale. *Psychologia: An International Journal of Psychology in the Orient*, 43, 253–261.
- Chung, G., Lanier, P., & Wong, P. Y. J. (2022). Mediating effects of parental stress on harsh parenting and parent-child relationship during Coronavirus (COVID-19) pandemic in Singapore. *Journal of Family Violence*, 37, 801–812. <https://doi.org/10.1007/s10896-020-00200-1>.
- Chung, G., Phillips, J., Jensen, T. M., & Lanier, P. (2020). Parental involvement and adolescents’ academic achievement: Latent profiles of mother and father warmth as a moderating influence. *Family Process*, 59(2), 772–788. <https://doi.org/10.1111/famp.12450>.
- Chung, H., & van der Lippe, T. (2018). Flexible working, work–life balance, and gender equality: Introduction. *Social Indicators Research*. <https://doi.org/10.1007/s11205-018>.
- Clark, M. A., Rudolph, C. W., Zhdanova, L., Michel, J. S., & Baltes, B. B. (2017). Organizational support factors and work–family outcomes: Exploring gender differences. *Journal of Family Issues*, 38(11), 1520–1545. <https://doi.org/10.1177/0192513X15585809>.
- Collins, L. M., & Lanza, S. T. (2010). *Latent Class and Latent Transition Analysis: With Applications in the Social, Behavioral, and Health Sciences*. John Wiley & Sons.
- Conway, L. G., Woodard, S. R., & Zubrod, A. (2020). *Social Psychological Measurements of COVID-19: Coronavirus Perceived Threat, Government Response, Impacts, and Experiences Questionnaires*. PsyArXiv. <https://doi.org/10.31234/osf.io/z2x9a>.
- Costigan, C. L., Cox, M. J., & Cauce, A. M. (2003). Work-parenting linkages among dual-earner couples at the transition to parenthood. *Journal of Family Psychology*, 17(3), 397–408. <https://doi.org/10.1037/0893-3200.17.3.397>.
- Coyne, L. W., Gould, E. R., Grimaldi, M., Wilson, K. G., Baffuto, G., & Biglan, A. (2020). First things first: Parent psychological flexibility and self-compassion during COVID-19. *Open Science Framework*. <https://doi.org/10.31219/osf.io/pyge2>.
- DOS. (2020). *Average and Median Monthly Household Income from Work (Including Employer CPF Contributions) Among Resident and Resident Employed Households, 2000–2019*.
- Fellows, K., Chiu, H., Hill, E., & Hawkins, A. (2016). Work–family conflict and couple relationship quality: A meta-analytic study. *Journal of Family and Economic Issues*, 37, 509–518.
- Ferguson, D. (2020, May 3). ‘I feel like a 1950s housewife’: How lockdown has exposed the gender divide. *The Observer*. <https://www.theguardian.com/world/2020/may/03/i-feel-like-a-1950s-housewife-how-lockdown-has-exposed-the-gender-divide>.
- Fisher, J., Languilaire, J.-C., Lawthom, R., Nieuwenhuis, R., Petts, R. J., Runswick-Cole, K., & Yerkes, M. A. (2020). Community, work, and family in times of COVID-19. *Community, Work & Family*, 23(3), 247–252. <https://doi.org/10.1080/13668803.2020.1756568>.
- Gayathri, N., & Karthikeyan, P. (2016). The role of self-efficacy and social support in improving life satisfaction: The mediating role of work–family enrichment. *Journal of Psychology*, 224, 25–33. <https://doi.org/10.1027/2151-2604/a000235>.
- Greenberger, E., O’Neil, R., & Nagel, S. K. (1994). Linking workplace and homeplace: Relations between the nature of adults’ work and their parenting behaviors. *Developmental Psychology*, 30(6), 990–1002. <https://doi.org/10.1037/0012-1649.30.6.990>.
- Hobfoll, S. (2002). Social and psychological resources and adaptation. *Review of General Psychology*, 6(4), 307–324. <https://doi.org/10.1037/1089-2680.6.4.307>.
- Holly, L. E., Fenley, A. R., Kritikos, T. K., Merson, R. A., Abidin, R. R., & Langer, D. A. (2019). Evidence-base update for parenting stress measures in clinical samples. *Journal of Clinical Child & Adolescent Psychology*, 48(5), 685–705. <https://doi.org/10.1080/15374416.2019.1639515>.
- Jensen, T. M. (2019). A typology of interactional patterns between youth and their stepfathers: Associations with family relationship quality and youth well-being. *Family Process*, 58(2), 384–403. <https://doi.org/10.1111/famp.12348>.
- Kainz, K., Jensen, T., & Zimmerman, S. (2018). Cultivating a research tool kit for social work doctoral education. *Journal of Social Work Education*, 54(4), 792–807. <https://doi.org/10.1080/10437797.2018.1434446>.
- Kalliath, T., & Brough, P. (2008). Work–life balance: A review of the meaning of the balance construct. *Journal of Management & Organization*, 14(3), 323–327.
- Lapierre, L. M., Li, Y., Kwan, H. K., Greenhaus, J. H., DiRenzo, M. S., & Shao, P. (2018). A meta-analysis of the antecedents of work–family enrichment. *Journal of Organizational Behavior*, 39(4), 385–401. <https://doi.org/10.1002/job.2234>.
- Lee, S. J., Grogan-Kaylor, A., & Berger, L. M. (2014). Parental spanking of 1-year-old children and subsequent child protective services involvement. *Child Abuse and Neglect*, 38(5), 875–883. <https://doi.org/10.1016/j.chiabu.2014.01.018>.
- Mohan, M. (2020, April 21). Circuit breaker extended until Jun 1 as Singapore aims to bring down community cases ‘decisively’: PM Lee. *Channel News Asia*. <https://www.channelnewsasia.com/news/singapore/covid-19-circuit-breaker-extended-june-pm-lee-speech-apr-21-12662054>.
- Petras, H., & Masyn, K. (2010). General growth mixture analysis with antecedents and consequences of change. In A. Piquero & D. Weisburd (Eds.), *Handbook of quantitative criminology* (pp. 69–100). Springer. <https://doi.org/10.1007/978-0-387>.
- Reid, W. J., & Crisafulli, A. (1990). Marital discord and child behavior problems: A meta-analysis. *Journal of Abnormal Child Psychology*, 18(1), 105–117. <https://doi.org/10.1007/BF00919459>.
- Restubog, S. L. D., Ocampo, A. C. G., & Wang, L. (2020). Taking control amidst the chaos: Emotion regulation during the COVID-19 pandemic. *Journal of Vocational Behavior*, 119, 103440. <https://doi.org/10.1016/j.jvb.2020.103440>.
- Schwarz, G. (1978). Estimating the dimension of a model. *The Annals of Statistics*, 6(2), 461–464. <https://doi.org/10.1214/aos/1176344136>.
- Shrout, M. R., Brown, R. D., Orbuch, T. L., & Weigel, D. J. (2019). A multidimensional examination of marital conflict and subjective health over 16 years. *Personal Relationships*, 26(3), 490–506. <https://doi.org/10.1111/pere.12292>.
- Siu, O., Lu, J., Brough, P., Lu, C., Bakker, A. B., Kalliath, T., O’Driscoll, M., Phillips, D. R., Chen, W., Lo, D., Sit, C., & Shi, K. (2010). Role resources and work–family enrichment: The role of work engagement. *Journal of Vocational Behavior*, 77(3), 470–480. <https://doi.org/10.1016/j.jvb.2010.06.007>.

- Stevens, D., Kiger, G., & Riley, P. J. (2001). Working hard and hardly working: Domestic labor and marital satisfaction among dual-earner couples. *Journal of Marriage and Family*, 63(2), 514–526. <https://doi.org/10.1111/j.1741-3737.2001.00514.x>.
- Tang, S. (2020, April 28). Singapore will enter a recession this year, 'significant uncertainty' over duration and intensity: MAS. CNA. <https://www.channelnewsasia.com/news/singapore/covid-19-economy-singapore-will-enter-recession-2020-mas-review-12683096>.
- Ten Brummelhuis, L. L., & Bakker, A. B. (2012). A resource perspective on the work-home interface: The work-home resources model. *The American Psychologist*, 67(7), 545–556. <https://doi.org/10.1037/a0027974>.
- The New York Times*. (2020, June 5). Coronavirus Map: Tracking the Global Outbreak. *The New York Times*. <https://www.nytimes.com/interactive/2020/world/coronavirus-maps.html>.
- The Straits Times*. (2020a, May 24). 9 in 10 here want to continue working from home: Survey. *The Straits Times*. <https://www.straitstimes.com/singapore/9-in-10-here-want-to-continue-working-from-home-survey>.
- The Straits Times*. (2020b, June 6). 4-day work week among ideas to improve work-life balance here. *The Straits Times*. <https://www.straitstimes.com/politics/4-day-work-week-among-ideas-to-improve-work-life-balance-here>.
- Usher, K., Bhullar, N., & Jackson, D. (2020). Life in the pandemic: Social isolation and mental health. *Journal of Clinical Nursing*. <https://doi.org/10.1111/jocn.15290>.

Publisher's note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

Springer Nature or its licensor (e.g. a society or other partner) holds exclusive rights to this article under a publishing agreement with the author(s) or other rightsholder(s); author self-archiving of the accepted manuscript version of this article is solely governed by the terms of such publishing agreement and applicable law.