# Model Equations and Mplus Syntax

**Model Equations**

***Level 1:***

Log[p/(1-p)] = β0j +

 β1j(Familyij - $\overline{Family\_{j}}$) +

 β2j(Technologyij - $\overline{Technology\_{j}}$) +

 β3j(Coordinationij - $\overline{Coordination\_{j}}$) +

 β4j(Workloadij - $\overline{Workload\_{j}}$) +

 β5j(COVIDij - $\overline{COVID\_{j}}$) +

 β6j(Familyij - $\overline{Family\_{j}}$) × (COVIDij - $\overline{COVID\_{j}}$) +

 β7j(Technologyij - $\overline{Technology\_{j}}$) × (COVIDij - $\overline{COVID\_{j}}$) +

 β8j(Coordinationij - $\overline{Coordination\_{j}}$) × (COVIDij - $\overline{COVID\_{j}}$) +

 β9j(Workloadij - $\overline{Workload\_{j}}$) × (COVIDij - $\overline{COVID\_{j}}$) +

 β10jBaselineWorkLocationij

***Level 2:***

 β0j = γ00 + γ01Genderj + γ02JobTenurej + γ03NumberOfKidj + γ04MaritalStatusj + u0j

 β1j = γ10

 β2j = γ20

 …

 β10j = γ100

*Note.* p = prob(next-day work location = 1). Familyij = work-family boundary stressors on day i for person j. Technologyij = technology stressors on day i for person j. Coordinationij = work coordination stressors on day i for person j. Workloadij = workload stressors on day i for person j. COVIDij = COVID-19 infection-related stressors on day i for person j.

In the model estimation, Mplus accounts for the nested data structure of a categorical dependent variable by estimating a random intercept. At Level-1, Mplus estimates a threshold based on binary values of DV (i.e., 1 vs. 0) within each cluster. At Level-2, this threshold (i.e., random intercept; denoted by β0j in the model equations above) is allowed to vary across clusters. This random intercept model was specified with our syntax presented below, following the Example 9.3 in Mplus user guide (Muthén & Muthén, 2017, p. 279).

**Mplus Syntax[[1]](#footnote-1): Multilevel Logistic Regression (Results Reported in Table 2 and Figure 2)**

USEVARIABLES ARE

NextDayWorkLocation !Day T+1 work location (dependent variable)

BaselineWorkLocation !Day T work location (control variable)

FamilyS !Day T Work-family boundary stressors

TechS !Day T Technology stressors

CoordS !Day T Work coordination stressors

WorkloadS !Day T Workload stressors

COVIDS !Day T COVID-19 infection-related stressors

Fam\_COVID Tech\_COVID Coor\_COVID Workl\_COVID

!Day T interaction terms (created after group-mean centering the predictors)

gender jobten NumOfKid MaritalStatus;

CLUSTER = EmpID; !Person ID

WITHIN = BaselineWorkLocation FamilyS TechS CoordS WorkloadS COVIDS

 Fam\_COVID Tech\_COVID Coor\_COVID Workl\_COVID;

BETWEEN = gender jobten NumOfKid MaritalStatus;

CATEGORICAL = NextDayWorkLocation;

DEFINE:

CENTER FamilyS TechS CoordS WorkloadS COVIDS (groupmean); !person-mean centering

CENTER Gender Jobten NumOfKid MaritalStatus (grandmean);!grand-mean centering

ANALYSIS: TYPE = TWOLEVEL;

MODEL:

%WITHIN%

NextDayWorkLocation on

 BaselineWorkLocation

 FamilyS

 TechS

 CoordS

 WorkLoadS

 COVIDS

 Fam\_COVID

 Tech\_COVID

 Coor\_COVID

 Workl\_COVID;

%BETWEEN%

NextDayWorkLocation on

 Gender

 Jobten

 NumOfKid

 MaritalStatus;

OUTPUT: Tech1;

# Supplemental Analysis: Impacts of Next-Day Work Location on the Next-Day Experience of Stressors

 We conducted a supplemental analysis to examine the impacts of next-day work location on the experience of the five categories of stressors on that day (i.e., next-day work-family boundary stressors, next-day technology stressors, next-day work coordination stressors, next-day workload stressors, and next-day COVID-19 infection-related stressors). In particular, on the basis of the multilevel logistic regression model in the main study, we further specified the effects of next-day work location (Day T+1) on all the five categories of stressors (Day T+1). We also controlled for the effects of baseline work location (Day T), the previous-day experience of five categories of stressors (Day T), as well as the four interaction terms (Day T) on the five categories of stressors on the next day (Day T+1) at the within-person level. At the between-person level, the effects of between-person-level control variables on the five categories of stressors on the next day (Day T+1) were also specified.

 As shown in Figure S1, our findings stayed robust when including next-day stressors as the outcome variables. Results showed that employees’ next-day work location was negatively related to their experience of work-family boundary stressors on that day (*γ* = -.26, *p* < .001) and the experience of technology stressors on that day (*γ* = -.16, *p* = .004). These findings suggest that compared to working from home, choosing to work in the office was indeed helpful in reducing the exposure to work-family boundary stressors and technology stressors on the next day. However, working in the office was not associated with a reduced exposure to work coordination stressors (*γ* = -.07, *p* = .28), potentially because other coworkers may still stay at home on the next day and thus the advantages of working in the office (i.e., engaging in more face-to-face interactions) may not manifest. Working from home was not associated with a reduced exposure to workload stressors (*γ* = .05, *p* = .50). This may be because working from home was more effective in helping employees mitigate or recover from the workload stressors’ impacts from the previous day (e.g., offering more relaxing opportunities, saving time for completing the remaining workload from previous day), compared to preventing the recurrence of workload stressors. Lastly, working from home was not associated with a reduced exposure to COVID-19 infection-related stressors (*γ* = .04, *p* =.50). We speculate that the occurrence of COVID-19 infection-related stressors (e.g., hearing news about the spread of COVID-19) may depend on the pandemic context or the associated social policies in response to the pandemic. Hence, the exposure to these stressors may not be under the employees’ control, though they may respond to these stressors by staying at home on the next day.

 In sum, the results above suggest that working in the office may be a more successful coping attempt, compared to working at home, to reduce further exposure to stressors. This is an important extension, because prior research evidence typically demonstrates the benefits of working from home (vs. in the office). For example, Delanoeije and Verbruggen (2020) showed that workers reported lower stress and higher work engagement on teleworking days compared to non-teleworking days. Biron and van Veldhoven (2016) showed that workers had a higher need for recovery at the end of workdays when they work in the office (vs. at home). Our supplemental analysis finding may thereby serve as useful information for organizations to potentially prioritize the reduction of workload stressors and COVID-19 infection-related stressors which constrain employees from choosing office as their next-day work location, which can reduce employees’ further exposure to work-family boundary stressors and technology stressors. To reduce workload stressors, organizations may alleviate the extra or unexpected workload for employees by arranging work tasks in advance. To reduce COVID-19 infection-related stressors, organizations may endeavor to implement health protection practices that reduce infection risk and alleviate employees’ infection-related concerns (e.g., checking body temperature of every employee upon their arrival at the company; implementing strict visitor registration; performing regular disinfection; supplying face masks and hand sanitizers).

 Although our supplemental analysis provides preliminary evidence that working in the office may be more beneficial than working from home to reduce further exposure to work-family boundary stressors and technology stressors, it is noteworthy that our findings in the supplemental analysis may only speak to whether choosing work location is effective in *preventing* the stressors from occurring. In addition to *preventing* stressors’ occurrence, work location decisions may also involve the coping effort to *alleviate* and *recover* from previous-day stressors’ impacts. Thus, to fully examine whether choosing work location is an effective coping effort or not, researchers may need to consider other consequences such as stress or strain.

**References**

Biron, M., & van Veldhoven, M. (2016). When control becomes a liability rather than an asset: Comparing home and office days among part‐time teleworkers. *Journal of Organizational Behavior*, *37*, 1317-1337.

Delanoeije, J., & Verbruggen, M. (2020). Between-person and within-person effects of telework: a quasi-field experiment. *European Journal of Work and Organizational Psychology*, *29*, 795-808.

**Figure S1**

*Unstandardized Multilevel Logistic Regression Results in the Supplemental Analysis*

Work-family boundary stressors

Technology stressors

Work coordination stressors

Workload stressors

Next-day work location

(1 = in the office; 0 = at home)

COVID-19 infection-related stressors

1.27\*\*

.53

.82\*

-.86\*

.79

-4.40\*

2.25

-2.82\*

-.57

Next-day work-family boundary stressors

Next-day technology stressors

Next-day work coordination stressors

Next-day workload stressors

Next-day COVID-19 infection-related stressors

-.26\*\*

-.16\*\*

-.07

.05

.04

*Note.* Level 1 *N* = 506; Level 2 *N* = 127. For brevity, the direct impacts of baseline work location, the five categories of stressors, and the four interaction terms on dependent variables are modeled in our analysis but not presented in this figure. The impacts of between-person-level control variables on the mediator (i.e., next-day work location) and dependent variables are not presented in the figure for the same reason. These results are available upon request to the first author. *\* p* < .05, \*\* *p* < .01, two-tailed.

1. The output file is available upon request to the first author. [↑](#footnote-ref-1)