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Associations Between Telework Experience and Psychosocial Working Conditions During the COVID-19 Pandemic

A Cross-sectional Analysis Among White-Collar Workers in Sweden

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Objectives: The aim of the study are to determine to what extent pre-COVID-19 experience of telework was associated with perceived psychosocial working conditions (PWCs; job demands, social support, and influence at work) during the COVID-19 pandemic among white-collar workers in Sweden and to determine to what extent the association depends on demographic factors, organizational tenure, and amount of computer use. **Methods:** Cross-sectional questionnaire data from 603 white-collar workers were collected October to December 2020 in an industrial company. **Results:** In general, telework experience was not significantly associated with PWCs. Women who began teleworking because of COVID-19 reported more job demands than women not teleworking. For those who began teleworking because of COVID-19, managerial support increased with age. **Conclusions:** In general, telework experience was not associated with PWCs, but telework due to COVID-19 may have influenced PWCs differently depending on gender and age.

Keywords: telework, COVID-19, job demands, influence at work, social support

The COVID-19 pandemic resulted in profound changes in working conditions, including that a considerable proportion of employees worked from their homes instead of working at the employers' work site. This way of organizing work can be defined as telework in accordance with the description given by Allen et al¹ of "a work practice that involves members of an organization substituting a portion of their typical work hours (ranging from a few hours per week to nearly full-time) to work away from a central workplace—typically principally from home—using technology to interact with others as needed to conduct work tasks."

Telework may affect the psychosocial work environment both positively and negatively, for instance, in terms of autonomy and social support.^{1,2} Previous research has, to a major extent, considered telework in an either/or fashion in which teleworkers have been compared with nonteleworkers, regardless of previous telework experience.¹ In a few studies of telework experience, more experience was found to be associ-

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The study was conducted in accordance with the Declaration of Helsinki and approved by the Swedish Ethical Review Authority (protocol code 2020-06094, date of approval November 25, 2020). Informed consent was obtained from all subjects involved in the study.

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LEARNING OUTCOMES

After reading this article, the reader will be able to:

- Explain the relevance of telework experience for perceptions of the psychosocial working conditions (job demands, social support and influence at work) during the COVID-19 pandemic among white-collar workers in Sweden
- Discern the importance of demographic factors, organizational tenure, and amount of computer use for the association between telework experience and perceptions of the psychosocial working conditions during the COVID-19 pandemic among white-collar workers in Sweden

ated with less work-life conflict and role stress.³ Telework, and telework experience, was of particular interest in the context of COVID-19. Recent reports from Europe and the United States show that prevalence rates of telework increased during the COVID-19 pandemic.^{4,5} In Europe, the proportion of teleworkers increased from 11% before COVID-19 to 48% during COVID-19.^{4,6} Among those working from home in June 2020 as a result of COVID-19, 54% had previous experience of telework while 46% teleworked for the first time during the pandemic.⁶ Telework is most common among highly educated white-collar workers,^{7,8} although work on-site at the employer's premises is still the most common arrangement in the European Union.⁸

Sweden, along with the other Nordic countries and the Netherlands, was among the Organisation for Economic Co-operation and Development (OECD) countries with the highest proportion of telework before COVID-19.⁹ The proportion of teleworkers increased further during COVID-19.^{6,10} In March 2021, 1,710,600 workers (approximately 30% of all gainfully employed) were teleworking in Sweden.¹¹

Findings in telework research are mixed, and Allen et al¹ argue that this is due to the extent of telework experience not being assessed. Conflicting results have been reported even in studies conducted during COVID-19. Schade et al¹² found a very small, and nonsignificant, difference in autonomy during telework before and during COVID-19, whereas McKee et al.¹³ found that most respondents had experienced increasing quantitative demands since the outbreak of COVID-19 but also that most respondent did not perceive any changes in social support or influence at work. Tejero et al,¹⁴ on the other hand, found higher ratings of social support during telework before COVID-19, compared with during COVID-19. Other studies have found that telework experience before COVID-19 was positive for adjustments to telework during COVID-19.^{15,16} Gerich¹⁷ found that workers who teleworked before COVID-19 tended to use telework for additional work outside regular office hours to a greater extent than those who started to telework due to COVID-19. Thus, telework experience seems to be an important factor in the psychosocial work environment, but it is poorly understood.

A better understanding of the role of telework experience in determining the psychosocial working conditions for teleworkers can

give employers a more informed position in future implementations of telework. Therefore, the aim of this cross-sectional questionnaire study in a sample of Swedish white-collar workers was to investigate the association between pre-COVID-19 telework experience and psychosocial working conditions (job demands and job resources) during the COVID-19 pandemic.

Previous Research and Theoretical Background

Telework is often portrayed in both the popular and academic literature as a road to freedom and autonomy.^{18–20} Indeed, telework usually offers the freedom to decide for oneself where and when the work is to be carried out, as long as deadlines are met. This freedom has been associated with a greater sense of autonomy and control among teleworkers, in comparison with traditional on-site office work.^{1,2,21–23} At a slightly more hypothetical level, Thatcher and Zhu²⁴ describe how telework may place employees, voluntarily or involuntarily, outside the social, physical and psychological context in which they have traditionally interacted with managers and colleagues. This weakens the organization's influence over the process by which common norms, values, and rules are communicated. Thatcher and Zhu²⁴ describe how such a change can free employees from the organization's influence over their identity, that is, it can lead to a greater personal autonomy vis à vis the employing organization. While telework has been found to contribute to autonomy, it has also been argued that such autonomy might be associated with high demands. If employees are free to plan work according to one's own preferences, the employees may perceive demands or expectations to be constantly present and to work more than they would have done if working on-site in an office.^{22,25} In that sense, telework may give less autonomy in planning of work.²⁶ However, in a large cross-sectional study, Knardahl and Christensen²⁷ found that expectations of being constantly available were only weakly and, nonsignificantly, associated with autonomy (decision control). In another study, the experience of control over the performance of work tasks has been reported to not differ between telework and traditional work.²⁸ Thus, teleworking can be expected to be associated with perceived autonomy as well as demands. The specific nature of these associations remains unclear. It is, also, unclear to what extent previous research on the relationship between telework and autonomy is relevant in a COVID-19 context. During COVID-19, many workers were forced to adapt to working while having children at home from school and kindergarten. This likely limited autonomy in work. Rieth and Hagemann²⁹ found that teleworkers with children at home experienced a greater loss of control over work as compared with those with no children at home. In a 3-wave prospective study, comparing psychosocial working conditions before and after the outbreak of COVID-19, Dettmers and Plüchhahn³⁰ found no differences in decision latitude between those who switched to telework as compared with those who remained on-site.

Social interaction seems to be another factor that differs between telework and work on-site. Telework has been described as a management challenge.^{31–33} When staff and managers are no longer present together in the workplace, conditions for communication and social interaction are changed,³² and the possibilities for managers and subordinates to observe each other's behaviors are restricted.³¹ Felstead et al³⁴ describe that the lost visibility and loss of shared presence in a joint on-site office following from telework obstructs the development of close social relations between managers and subordinates and makes it harder to practice a supportive leadership. Thus, it is likely to find less positive ratings of supervisory social support among teleworkers as compared with on-site workers.

Several studies report that teleworkers experience less social support from colleagues and more social and/or professional isolation than employees with traditional working conditions.¹ This idea of social isolation is nuanced by the results in a meta-analysis carried out by Gajendran and Harrison,³ showing that a low extent of

teleworking was not associated with coworker relationships whereas a high extent of telework (more than 2.5 d/wk) had a negative impact on relationships. During COVID-19, many more workers than usual were teleworking.¹⁰ If the findings in studies of supervisory support are applied to coworker relations, that is, that telework obstructs the development of close social relations,³⁴ it is likely that the extensive telework during COVID-19 will be associated with less beneficial conditions for social support from supervisors and colleagues as compared with the pre-COVID-19 context.

A number of additional factors need, however, to be considered in such studies. For instance, in telework, the extent of workers' interaction with coworkers and managers, as well as the exposure to the organization's work environment, is dependent on the access to and use of communication tools such as computers.³⁵ Therefore, we hypothesize that the association between telework experience and psychosocial working conditions is modified by the extent of computer use.

Demographic factors such as gender and age often determine differences in work demands, which in turn influence perceived psychosocial working conditions.^{36,37} During COVID-19, many work tasks that were performed on-site before COVID-19 were instead done at home. This means that any association between age and gender and psychosocial working conditions that was present pre-COVID-19 could be expected to be modified by telework experience before COVID-19.

Previous research has found that the extent of exposure to an organizational context is associated with the way the work environment is experienced. For instance, it has been found that organizational tenure is positively associated with employee perception of organizational culture.³⁸ With regard to psychosocial working conditions, it is likely to find different directions of the associations between tenure and different indicators of working conditions. Workers with short organizational tenure are uncertain about expectations and how to carry out their work,³⁹ whereas longer tenure means that the worker has learned how to handle the demands encountered at work and has adjusted to the employer's performance expectation.⁴⁰ Therefore, the association between job demands and organizational tenure is likely negative. Newcomers work to establish social networks within the organization⁴¹ and seek to establish contact with older and more experienced colleagues from whom they can learn.⁴² We argue that the opportunities to get social support and to exert influence in the job likely increases with tenure because knowledge and organizational social networks develop over time. Thus, for job influence and social support, the association with organizational tenure is likely positive.

On this basis, the present study addressed the following 2 research questions related to telework experience and psychosocial working conditions during COVID-19:

1. To what extent is telework experience associated with psychosocial working conditions (job demands, influence at work, social support from colleagues and managers) among white-collar teleworkers during the COVID-19 pandemic?
2. To what extent does the association between telework experience and psychosocial working conditions differ by age, gender, extent of computer use, and organizational tenure?

METHOD

Context

The present study was conducted in Sweden during October and November 2020. From April 2020, a general advice stated that employers should ensure and encourage that their employees worked from home to the extent possible.⁴³ From October 2020, a general advice to the public stated that anyone suspected or known to be infected with COVID-19 should stay at home.⁴⁴ In Swedish public health regulation, a general advice is not a legal request but a strong

recommendation for how to act in compliance with the law. Those who chose to not follow the advice must be able to demonstrate that they otherwise fulfill what stated in the law.⁴⁵ Kindergartens and elementary schools for children up to 16 years of age were not closed, but recommendations stated that children should stay at home if they had any symptoms of COVID-19, including a postsymptom period of 2 days. The Swedish social security system gives parents of children up to the age of 12 compensation for staying at home with ill children.⁴⁶

Sample

As part of the baseline measurement in an ongoing cohort study, a survey was sent to all 2291 white-collar and administrative full-time employees in a large, Swedish company in the manufacturing industry. The questionnaire, addressing various aspects of work environment and health, as well as demographics and personal information was sent to the employees' job e-mail with 3 reminders using Qulatrix XM. E-mail addresses were provided by the company. Each survey invitation was unique for each participant and the links expired once the survey was completed. A total of 928 valid questionnaires were returned (response rate, 41%). Based on company data, mean age and gender distribution among respondents and nonrespondents were compared using a *t* test and χ^2 test. Mean age of respondents and nonrespondents were 44.7 and 45.0 years, respectively ($t = 0.6$, $P = 0.5$). The proportion of females among respondents (33.1%) differed significantly from the nonrespondents (23.4%, $\chi^2 = 26.8$, $P < 0.001$). The study was approved by the Swedish Ethical Review Authority (2019-06220), and all participants provided their informed consent.

The present study was restricted to full-time white-collar employees aged 18 to 65 years. Accordingly, 19 respondents older than 65 years and 25 part-time workers were excluded. Two additional respondents marked that they did not have any colleagues or manager, and they were also excluded. A total of 16 respondents were temporary staff, and 67 respondents were external staff, such as temporary agency workers or freelancers. External and temporary staff have been found to differ in psychosocial working environment from workers with permanent employment⁴⁷ and were therefore excluded. A total of 67 respondent answered that they neither teleworked nor were on-site, and they were excluded. This left a total of 732 eligible white-collar workers. These workers were, for instance, engineers, real-estate specialists, or financial controllers. After exclusion of internal missing values in the independent variables, analyses were run on 603 or 604 respondents depending on the number of respondents in the dependent variable. The mean values of the dependent variables job demands and influence at work reported in Table 1 corresponds closely to reference values repre-

sentative of individuals with higher education in the Swedish working population.⁴⁸ The model analyzing social support from managers was resolved for 524 respondents, because managers were excluded (details below). To analyze potential bias due to internal missing data, respondents and dropouts were compared using a *t* test and a χ^2 test for age and gender, respectively, on basis of the organization's registers. These tests did not indicate any systematic differences (mean age for respondents and dropouts were 44.5 and 44.1 years, respectively. Among respondents and dropouts, 32.5% and 30.2% were women, respectively.

Independent Variables

To assess the main independent variable, that is, the extent of telework experience, respondents stating that they did have the option to work away from the central workplace were asked to respond "yes" or "no" to 2 statements, that is, "I began working remotely in connection with COVID-19," and "I worked remotely prior to COVID-19."

Dependent Variables

The dependent variables job demands, influence at work, and social support from coworkers and supervisors were measured using questions from the third version of the Copenhagen Psychosocial Questionnaire, COPSQ III, which has been validated in a Swedish context.⁴⁸ Quantitative job demands and influence at work were assessed using 3 and 4 items, respectively, with 5-point response scales (always, often, sometimes, seldom, or never/hardly ever). The 2 single items "How often do you get help and support from your immediate superior, if needed?" and "How often do you get help and support from your colleagues, if needed?" were used to measure social support from colleagues and social support from the manager, using the same response scale as for quantitative job demands and influence at work, with the addition of the response options "I do not have a supervisor/I do not have colleagues."

Covariates

Self-rated organizational tenure was measured in years and self-rated computer use was measured in minutes per day, using an item from Gadeyne et al.⁴⁹ Education was measured using a single item with answer categories for primary school, high school, postsecondary education, and university/college. The items for tenure and education were both constructed by the researchers.

Respondents were asked whether they were born in Sweden or not. Respondents were also asked if they had children at home 0 to 5 and 6 to 12 years of age and, in that case, how many. Information

TABLE 1. Descriptive Characteristics of Final Sample Included in Analyses (n = 604)

	Experience of Telework			
	Total	No Telework	Telework Due to COVID-19	Telework Before COVID-19
Categorical variables	(%)	n (%)	n (%)	n (%)
	604 (100)	130 (22)	411 (68)	62 (10)
Sex (female)	196 (32)	37 (28)	141 (34)	18 (29)
Children at home 0–12 yrs	226 (37)	43 (33)	165 (40)	18 (29)
Foreign borne	121 (20)	17 (13)	94 (23)	10 (16)
Higher education	480 (80)	76 (58)	350 (85)	55 (89)
Managerial position	80 (13)	38 (29)	40 (10)	2 (3)
High support from colleagues	509 (84)	114 (88)	343 (83)	52 (84)
High support from manager ^a	380 (73)	63 (68)	272 (73)	45 (75)
Continuous variables	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)
Age	45 (11)	44 (11)	44 (11)	49 (10)
Computer use, min/d	417 (84)	361 (110)	434 (65)	419 (86)
Organizational tenure, yr	15 (12)	16 (12)	14 (12)	15 (11)
Job demands	51 (19)	50 (22)	52 (18)	49 (21)
Influence at work	51 (17)	52 (18)	50 (16)	54 (17)

^aWorkers with a managerial position excluded, n = 524.

TABLE 2. Quantitative Job Demands and Telework Experience

Variables	Model A, Quantitative Job Demands ^a				Model B, Quantitative Job Demands ^b				Model C, Quantitative Job Demands ^c			
	B		95% CI		B		95% CI		B		95% CI	
Intercept	50.32	46.97	—	53.67	27.15	15.47	—	38.82	28.61	16.90	—	40.33
Telework experience (ref no telew)												
Telework due to COVID-19	1.78	-2.07	—	5.62	0.92	-3.18	—	5.04	-2.72	-7.59	—	2.16
Telework before COVID-19	-0.59	-6.48	—	5.31	-1.06	-7.11	—	4.99	-1.55	-8.64	—	5.54
Age					0.06	-0.14	—	0.26	0.07	-0.13	—	0.26
Female (ref male)					-4.68	-7.97	—	-1.39	-12.55	-19.84	—	-5.26
Foreign borne (ref Swedish borne)					-4.12	-8.07	—	-0.17	-4.44	-8.38	—	-0.51
Higher education (ref primary school)					3.86	-0.26	—	7.98	4.35	0.24	—	8.45
Children at home aged 0–12 yrs (ref no children 0–12 yrs)					4.38	1.05	—	7.71	4.39	1.08	—	7.71
Computer use, min/d					0.03	0.01	—	0.05	0.03	0.01	—	0.05
Organizational tenure, y					0.30	0.12	—	0.47	0.28	0.11	—	0.
Managerial position (ref nonmanagerial position)					8.12	3.42	—	12.82	7.61	2.90	—	12.31
Interaction terms												
Telework due to COVID-19*gender									10.92	2.78	—	19.06
Telework before COVID-19*gender									0.43	-12.06	—	12.91

Ordinary least squares regression analyses, unstandardized coefficients (B) n = 604. Statistically significant (P < 0.05) associations are set in boldface.

^aAdj R² = 0.001.

^bAdj R² = 0.078.

^cAdj R² = 0.089.

regarding age, gender, employment contract (3 alternatives: permanent contract/until further notice, fixed-term contracts, temporary employment) and managerial position were obtained from company records.

Analyses

Analyses were performed using STATA version 14.2. For quantitative job demands and influence at work, indices ranging from 0 to 100 were calculated according to the procedure described in Berthelsen et al.⁴⁸ Answers to the items regarding support from managers and support from colleagues were concentrated at the higher end of the scales. Therefore, both variables were categorized, combining “Always” and “Often” into a “high social support” category, and “sometimes” and “never” into a “low social support” category.

Responses concerning telework experience were transformed into the 3 dummy variables “No telework,” “Teleworked due to COVID-19,” and “Teleworked before COVID-19” with positive answers set to 1, and negative to 0. In the analyses, “No telework” was set as the reference category.

The education item was recoded into a dummy variable with primary school and high school coded as lower education = 0 and postsecondary education and university/college coded as higher education = 1. The item asking if respondents were borne in Sweden was coded into a dummy variable where foreign borne = 1 and native Swedes = 0. The items asking for number of children were combined into a dummy variable where children aged 0 to 12 years = 1 and no children = 0. Gender was coded as a dummy variable with female = 1 and male = 0. Managerial position was dummy coded with manager = 1 and nonmanagerial position = 0. Age, extent of computer use, and organizational tenure were treated as continuous.

For descriptive purposes, means and standard deviations were calculated for the continuous variables and frequencies and percent for categorical variables. The dependent variables quantitative job demands and influence at work were treated as continuous in accordance with Berthelsen et al.⁴⁸ To investigate their association with experience of telework (independent variable), ordinary least squares regression analyses were run with adjustment for working hours per week, computer use per day, organizational tenure, managerial position,

TABLE 3. Influence at Work and Telework Experience

Variables	Model A, Influence at Work ^a				Model B, Influence at Work ^b			
	B		95% CI		B		95% CI	
Intercept	52.36	49.47	—	55.24	66.19	56.06	—	76.33
Telework experience (ref no telew)								
Telework due to COVID-19	-2.55	-5.86	—	0.76	-0.18	-3.74	—	3.38
Telework before COVID-19	2.08	-3.01	—	7.16	4.77	-0.48	—	10.03
Age					-0.23	-0.40	—	-0.06
Female (ref male)					-2.20	-5.06	—	0.65
Foreign borne (ref Swedish borne)					-2.09	-5.52	—	1.34
Higher education (ref primary school)					5.40	1.83	—	8.97
Children at home aged 0–12 yrs (ref no children 0–12 yrs)					-4.15	-7.05	—	-1.26
Computer use, min/d					-0.02	-0.04	—	-0.01
Organizational tenure, yr					0.02	-0.14	—	0.17
Managerial position (ref nonmanagerial position)					8.33	4.25	—	12.41

Ordinary least squares regression analyses, unstandardized coefficients (B) n = 604. Statistically significant (P < 0.05) associations are set in boldface.

^aAdj R² = 0.006.

^bAdj R² = 0.072.

TABLE 4. Social Support From Colleagues and Telework Experience

Variables	Model A, High Support From Colleagues ^a				Model B, High Support From Colleagues ^b			
	Exp(B)	95% CI			Exp(B)	95% CI		
Intercept	7.13	4.22	—	12.02	42.52	5.81	—	311.29
Telework experience (ref no telew)								
Telework due to COVID-19	0.71	0.39	—	1.27	1.01	0.54	—	1.92
Telework before COVID-19	0.73	0.31	—	1.72	1.10	0.44	—	2.74
Age					0.99	0.97	—	1.02
Female (ref male)					1.52	0.91	—	2.53
Foreign borne (ref Swedish borne)					0.54	0.32	—	0.93
Higher education (ref primary school)					0.73	0.37	—	1.42
Children at home aged 0–12 yrs (ref no children 0–12 yrs)					1.52	0.91	—	2.55
Computer use, min/d					0.99	0.99	—	0.99
Organizational tenure, yr					0.99	0.96	—	1.02
Managerial position (ref nonmanagerial position)					1.61	0.69	—	3.78

Logistic Regression Analyses n = 603. Statistically significant ($P < 0.05$) associations are set in boldface.

^aLikelihood ratio χ^2 test (P), 1.43 (0.49); Nagelkerke $R^2 = 0.01$.

^bLikelihood ratio χ^2 test (P), 20.74 (0.02); Nagelkerke $R^2 = 0.04$.

and demographic covariates. For the dichotomous dependent variables social support from coworkers and social support from supervisor, we used logistic regression with experience of telework as the independent variable and the same set of covariates except for managers not being included. Only 7 managers reported low social support from their manager. Of these, none had telework before COVID-19. Thus, odds ratios (ORs) for managers were very uncertain, and the model fit was poor. Therefore, managers were excluded from the analysis of social support from the supervisor.

The regression models were run in 3 steps for each outcome. First, a crude unadjusted model was fitted by entering only the variable expressing experience of telework; these models are reported as model A in Tables 2 to 5. Thereafter, adjusted models were fitted, where the covariates were added; they are reported as model B in Tables 2 to 5. As a final step, interactions between experience of telework and each of the variables gender, age, extent of computer use, and organizational tenure were analyzed in separate models. Interactions that were statistically significant in the respective models were then included in a fully adjusted model, labeled model C in the relevant tables. Interactions that were not statistically significant are reported as Supplement

Digital Content (SDC Tables 1, <http://links.lww.com/JOM/B231>, 2, <http://links.lww.com/JOM/B232>, 3, <http://links.lww.com/JOM/B233>, 4, <http://links.lww.com/JOM/B234>). Normality of the residuals was assessed using visual inspection and Kolmogorov-Smirnov tests. No critical violations of assumptions were detected. The variance inflation factor (VIF) was checked in each model to test for possible multicollinearity among the independent variables. When the adjusted models were run without the interaction terms, no VIF value exceeded 2. For the adjusted models with interactions, VIF values exceeded 5. As advised by Echambadi and Hess,⁵⁰ no measures were taken because of high VIF values in the models with interaction terms.

From the analysis of social support from managers, predicted probabilities for the respective categories of telework experience moderated by age were calculated and plotted in Figure 1.

RESULTS

Descriptive statistics for all variables included in the analyses are reported in Table 1. A majority of respondents (78%) were teleworking, whereas 22% were working on-site. Sixty-eight percent were

TABLE 5. Social Support From the Manager and Telework Experience

Variables	Model A, High Support From Manager ^a				Model B, High Support From Manager ^b				Model C, High Support From Manager ^c			
	Exp(B)	95% CI			Exp(B)	95% CI			Exp(B)	95% CI		
Intercept	2.17	1.40	—	3.37	3.31	0.62	—	17.5	26.18	2.14	—	319.66
Telework experience (ref no telew)												
Telework due to COVID-19	1.25	0.76	—	2.05	1.41	0.82	—	2.40	0.13	0.01	—	1.16
Telework before COVID-19	1.38	0.66	—	2.87	1.44	0.66	—	3.13	0.06	0.01	—	2.14
Age					1.02	0.99	—	1.05	0.98	0.93	—	1.02
Female (ref male)					1.50	0.97	—	2.30	1.51	0.98	—	2.34
Foreign borne (ref Swedish borne)					1.01	0.61	—	1.65	1.02	0.62	—	1.68
Higher education (ref primary school)					1.07	0.62	—	1.83	0.99	0.57	—	1.71
Children at home aged 0–12 yrs (ref no children 0–12 yrs)					1.16	0.75	—	1.80	1.20	0.77	—	1.87
Computer use, min/d					0.99	0.99	—	1.01	1.0	0.99	—	1.01
Organizational tenure, yr					0.97	0.95	—	0.99	0.97	0.95	—	0.99
Interaction terms												
Telework due to COVID-19*age									1.06	1.01	—	1.11
Telework before COVID-19*age									1.07	0.99	—	1.15

Logistic regression analyses, n = 524. Statistically significant ($P < 0.05$) associations are set in boldface.

^aLikelihood ratio χ^2 test (P), 0.97 (0.061); Nagelkerke $R^2 = 0.01$.

^bLikelihood ratio χ^2 test (P), 13.68 (0.09); Nagelkerke $R^2 = 0.02$.

^cLikelihood ratio χ^2 test (P), 20.06 (0.04); Nagelkerke $R^2 = 0.03$.

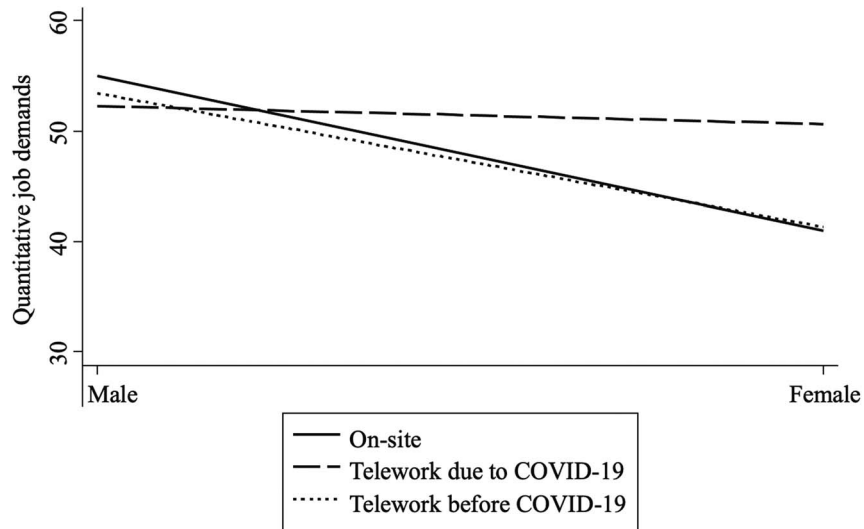


FIGURE 1. Association between quantitative job demands and telework experience, moderated by gender.

teleworking now but had not been teleworking before COVID-19, whereas 10% had been teleworking even before COVID-19.

The multiple linear model reported in Table 2 showed that telework experience was not associated with job demands, neither in the crude, adjusted, nor interaction analyses (main effects of telework experience (Table 2, models A–C). As indicated by the significant interaction between gender and telework due to COVID-19, telework due to COVID-19 was associated with an increase in job demands for women ($B = 10.92$; 95% CI, 2.78 to 19.06). This increase started from the lower level of job demands reported by women ($B = -12.55$; 95% CI, -19.84 to -5.26), which means that women who were teleworking because of COVID-19 reported more job demands than women who were working on-site, but less job demands than men that were working on-site (Fig. 1).

The interaction term for gender and telework before COVID-19 was positive though small, and it was not statistically significant ($B = 0.43$, 95% CI = -12.06 to 12.91). Thus, women involved in telework before COVID-19 did not differ significantly from other re-

spondents with regard to job demands. Age was weakly, and nonsignificantly, associated with quantitative job demands ($B = 0.067$; 95% CI, -0.13 to 0.26). With regard to computer use and organizational tenure, Table 2, model C, showed that an increase in minutes of computer use per day was associated with a slight increase in quantitative job demands ($B = 0.03$; 95% CI, 0.01 to 0.05). The same applied for organizational tenure ($B = 0.28$; 95% CI, 0.11 to 0.46). The interactions between telework experience, computer use, and organizational tenure (see table, Supplemental Digital Content 1, <http://links.lww.com/JOM/B231>) were not statistically significant.

Figure 1 shows the association between quantitative job demands and telework experience, moderated by gender. This is adjusted for age, being foreign born, education, having children at home aged 0 to 12 years, extent of computer use, and organizational tenure.

For influence at work, neither the crude (Table 3, model A) nor the adjusted (Table 3, model B) model showed any significant associations between telework due to COVID-19 and influence at work, nor between telework before COVID-19 and influence at work. None of

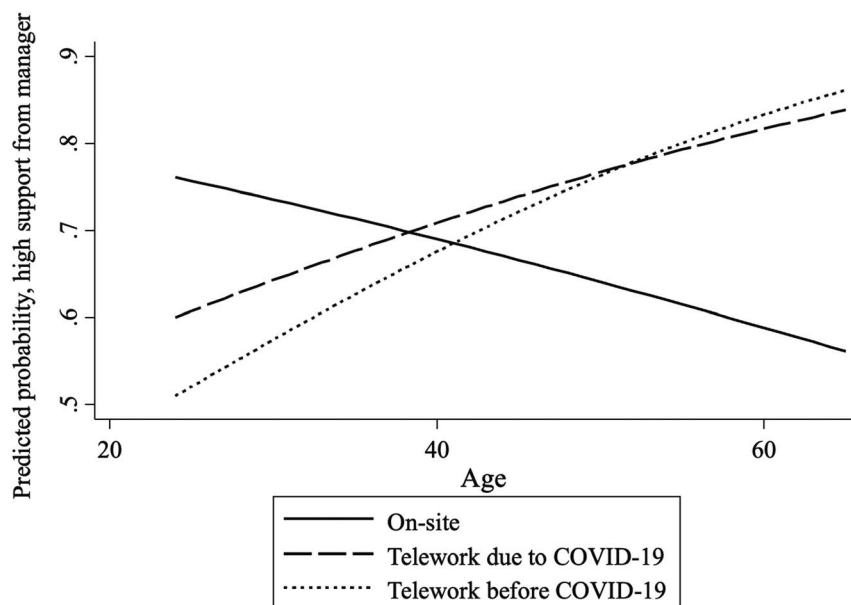


FIGURE 2. Association between social support from the manager and telework experience, moderated by age.

the interactions between telework experience and age, gender, extent of computer use, or organizational tenure were significantly associated with influence at work (see table, Supplemental Digital Content 2, <http://links.lww.com/JOM/B232>). With regard to age, the results in Table 3, model B, showed that older workers experienced less influence at work than younger workers ($B = -0.23$; 95% CI, -0.40 to -0.06). The results in Table 3, model B, also showed that more computer use per day was associated with less influence at work, although the association was weak ($B = -0.02$; 95% CI, -0.04 to -0.01).

As shown by the results presented in Table 4, telework experience was not significantly associated with the odds for experiencing high support from colleagues. Neither age, gender, extent of computer use, nor organizational tenure moderated the association (see table, Supplement Digital Content 3, <http://links.lww.com/JOM/B233>). With regard to main effects of age, gender, extent of computer use, or organizational tenure, the results showed a weak OR for the main effect of computer use, meaning that more minutes of computer use per day was associated with less support from colleagues (OR, 0.99; 95% CI, 0.99 to 0.99).

The results reported in Table 5 showed that the main effect for telework experience and high support from managers were not statistically significant, neither for the crude (model A) nor for adjusted (model B) models. The results in Table 5, model C, and Figure 2 also showed that for those who began teleworking with COVID-19, being of older age increased the odds for high social support from managers, as compared with those who did not telework (OR, 1.06; 95% CI, 1.01 to 1.11). Gender, extent of computer use, or organizational tenure did not moderate the association between telework experience nor support from managers (see table, Supplemental Digital Content 4, <http://links.lww.com/JOM/B234>). In addition, as indicated by the OR for organizational tenure (OR, 0.97; 95% CI, 0.95 to 0.99), those working for many years in the organization were less likely to report high social support from managers.

Figure 2 shows the association between social support from the manager and telework experience, moderated by age. Adjusted for being foreign born, education, having children at home aged 0–12, extent of computer use, and organizational tenure.

DISCUSSION

This study addresses telework experience and psychosocial working conditions during the COVID-19 pandemic in a sample of white-collar workers in the manufacturing industry in Sweden. A majority of the employees (68%) in the sample started to telework because of the COVID-19 pandemic, while a minority had previous experience of telework (10%) or remained at the office (22%).

The first research question addressed by this study was to what extent previous telework experience is associated with psychosocial working conditions (job demands, influence at work, social support from colleagues and managers) among white-collar workers during the COVID-19 pandemic. Neither little experience, that is, having started teleworking because of COVID-19, nor longer experience, that is, having teleworked before COVID-19, showed significant associations with job demands and social support from colleagues or managers, when compared with those who did not telework. With regard to influence at work, the results showed that those who had been teleworking before COVID-19 reported more influence at work as compared with those who started teleworking because of COVID-19. However, this association was not statistically significant.

In reference to governmental general advice in Sweden,⁴³ those beginning teleworking due to COVID-19 had up to 6 months of telework experience at the time of study. In a qualitative study of experiences of teleworking during COVID-19, de Klerk et al⁵¹ found that those who had not previously been teleworking experienced initial difficulties in adapting to the conditions for teleworking. As telework continued, they adapted to equipment and working methods. Experi-

enced teleworkers had already gone through this adaptation. The results of this study could possibly be explained by those who started teleworking because of COVID-19 already having overcome initial difficulties in adapting to the conditions for teleworking.

The second research question addressed possible moderation by age, gender, extent of computer use, and organizational tenure of the associations between telework experience and psychosocial working conditions. For influence at work and social support from colleagues, no such moderation was found. However, we did find a moderation by gender of the association between telework due to COVID-19 and quantitative job demands, in that women who had started to telework because of COVID-19 reported more job demands than women who did not telework.

A possible explanation for this result could be that women working from home feel that they need to take responsibility for household chores also during working hours.¹ Women generally experience more work-family conflict than men, which is attributed to women's domestic responsibilities.⁵² In a pre-COVID-19 context, it has been reported that parents with children at home are less likely to telework than individuals without children.⁵³ However, among individuals with children, it has been found that women are more likely to telework than men.⁵³ In a COVID-19 context, Çoban⁵⁴ report that women take more responsibilities at home due to, for example, the increased hygiene control brought about by the pandemic. In Sweden, where care for sick children is covered by the social security system, official statistics report that the unequal gender patterns in care of children already known before COVID-19 continued even during COVID-19 and to an increased extent.⁵⁵ It has been established that demands in the private sphere may spill over to the professional sphere⁵⁶ leading to a positive association with stress.⁵⁷ Abdel Hadi et al⁵⁸ found that not only job demands but also domestic demands predicted emotional exhaustion among teleworkers during COVID-19. On this basis, we argue that our results may reflect an increased burden for domestic chores for women during COVID-19, spilling over from the private sphere to the professional sphere, and thus taking the shape of increased job demands. Future studies should investigate the gendered spillover between private and professional spheres in closer detail. Another explanation is possible, based on Maruyama and Tietze,⁵⁹ that is, that female teleworkers, and female teleworkers with dependent children, to a greater extent experienced reduced visibility at work and reduced career opportunities after they started teleworking. This could imply that women put in extra efforts in their work and thereby, to a greater extent than men, experience higher job demands when starting to telework.

Against these explanations, it can be argued that even women teleworking before COVID-19 should also report higher demands at work during COVID-19. However, our results do not confirm that. At the same time, it is reasonable to assume, as suggested by de Klerk et al,⁵¹ that the ability to handle the requirements set by telework should increase with longer experience, and that a potential spillover of demands from the private to the professional sphere or concerns for workplace visibility therefore does not have the same effect on job demands for those workers who teleworked already before COVID-19. This explanation is supported by Venkatesh,⁶⁰ reporting that increased telework experience is associated with an increase in the perceived ease of use of information technology for telework.

In our analyses of support from managers, the results show that being of older age increases the odds for reporting high social support for those who began teleworking because of COVID-19. This may be explained by older workers having worked with the supervisor for a longer time, thus being more acquainted with the supervisor. This possibility was, to some extent, taken into account in our study, in that the analysis was adjusted for organizational tenure. A related explanation is that older and more experienced workers have work tasks that differ from those of younger workers and that these tasks require a different sort of interaction with managers. Higher odds for high social support

from managers were seen with increasing age only for those who started teleworking because of COVID-19, so this explanation imply the same adapting mechanism as suggested by de Klerk et al.,⁵¹ that is, that older workers who teleworked before COVID-19 has adapted to the telework condition and therefore has less need for support from their managers.

Another possible explanation is that usage of digital information and communication tools such as computers and smartphones are less common among older people.⁶¹ If this is also true in the present population, it could mean that older workers require more support from their managers to handle the tools needed for teleworking. The positive interaction between telework due to COVID-19 and age in relation to social support from managers could thus reflect that older employees were more in contact with managers during the telework imposed by COVID-19. In a study of involuntary telework, age, and resilience during the COVID-19 pandemic, Scheibe et al.⁶² found that older workers reported higher resilience than younger workers. As an explanation, the authors proposed that older workers might have more social capital (ie, social networks) at the workplace to buffer job demands. If this is correct, our result of an increasing support from the manager with age for those who began teleworking because of COVID-19 could reflect that older workers had better relations with management than younger workers, which would buffer the demands associated with starting teleworking. The association of age with managerial support in telework needs to be addressed in more detail in future studies.

According to previous research, a major challenge in telework is the lack of social support when employees are not engaged in direct social interaction.² Interestingly, in the present study, experience of telework was not significantly associated with support from colleagues. This finding agrees with a longitudinal study from the Netherlands,⁶³ which did not find an effect of telework on social support from colleagues. The results from our study also agree with those from Wang et al.⁶⁴ Although they did not report any detailed analyses of support for different levels of telework experience, it can be read from a correlation matrix that pre-COVID-19 experience of telework was only weakly associated with social support in telework during COVID-19. In addition, the results from our study are similar to those presented by Pulido-Martos et al.,⁶⁵ reporting that perceived social support from colleagues and managers did not differ between on-site-only workers and hybrid workers who mixed on-site and telework.

Limitations

When interpreting the results, some limitations need to be considered. The study is based on analyses of data from one organization in one sector, which may compromise the generalizability of results. The response rate is 41% with 10% more women among respondents than among nonrespondents. The proportion of internal missing data was approximately 17%. Although we did not find significant differences between respondents and nonrespondents in the internal missing answers, the gender pattern goes in the same direction as in the external missing data, that is, women are overrepresented by approximately 2.3 percentage points. This is of specific importance given that the results showed that women who teleworked because of COVID-19 reported higher quantitative job demands. Thus, we face a risk that our results are biased by the greater proportion of women included in the analysis.

Research question 2 concerned the potential moderation effects of demographic factors, extent of computer use, and organizational tenure. The answer to this question required several regression models to be fitted, which may increase the risk for type I error.

In this study, telework experience was expected to explain quantitative job demands, influence at work, support from colleagues, and support from managers. These psychosocial working conditions likely vary by the type of work tasks carried out by employees. We do not know to which extent workers with different telework experi-

ence differ in what work tasks they perform. However, we do have indications that work tasks differ among the categories of telework experience. For instance, the proportion of highly educated workers is substantially larger among those who teleworked because of COVID-19 and before COVID-19, as compared with nonteleworkers. Our results show that higher education is associated with more quantitative job demands and more influence at work. This could mean that the obtained results for telework experience do, to a considerable extent, reflect differences in work tasks or working conditions. Although it was reported elsewhere⁶⁶ that differences in job qualifications did not explain time pressure or control of time use among teleworkers, we encourage that work tasks and job contents should be addressed in more detail in future studies of telework experience.

While our questionnaire on telework experience was self-developed and the answers were self-reported, we argue that there are no particularly strong reasons to question their validity. Rather, the analysis of the associations between pre-COVID-19 experience of telework and psychosocial working conditions during the COVID-19 pandemic is a strength of this study. Another strength of the study is the use of validated instruments for the dependent variables, which allows comparisons of the results from this study with future studies of telework experience and psychosocial working conditions in other populations using the same instruments.

CONCLUSIONS

The results from our study show that differences in telework experience (no telework, telework due to COVID-19, telework before COVID-19) did not explain variations in psychosocial working conditions. The relationships between telework experience and influence at work and social support from colleagues were not moderated by age, gender, extent of computer use, and organizational tenure. However, the association between telework due to COVID-19 and quantitative job demands was moderated by gender. Women reporting to have begun teleworking because of COVID-19 reported more job demands than women who did not telework. Social support from managers was moderated by age; increasing age was associated with higher odds for good social support from managers for teleworkers, but this association was only significant for those who had begun teleworking because of COVID-19. In conclusion, telework due to COVID-19 may influence the psychosocial work environment, and, for some variables, in different ways depending on gender and age of the workers. These results may be important for understanding and preventing possible inequalities due to age and gender in the psychosocial work environment among white-collar workers exposed to telework.

REFERENCES

1. Allen TD, Golden TD, Shockley KM. How effective is telecommuting? Assessing the status of our scientific findings. *Psychol Sci Public Interest*. 2015;16:40–68.
2. Charalampous M, Grant CA, Tramontano C, Michailidis E. Systematically reviewing remote e-workers' well-being at work: a multidimensional approach. *Eur J Work Organ Psy*. 2019;28:51–73.
3. Gajendran RS, Harrison DA. The good, the bad, and the unknown about telecommuting: meta-analysis of psychological mediators and individual consequences. *J Appl Psychol*. 2007;92:1524–1541.
4. European Commission's Science and Knowledge Center. *Telework in the EU Before and After the COVID-19: Where We Were, Where We Head to*. European Commission: Bruxelles, Belgium. 2020:1–8.
5. Dey M, Frazis H, Loewenstein MA, Sun H. Ability to work from home. *Monthly Labor Review*. 2020;1–19.
6. Eurofound. *Living, working and COVID-19*. Luxembourg: Eurofound, Publications Office of the European Union; 2020.
7. Vilhelmson B, Thulin E. Who and where are the flexible workers? Exploring the current diffusion of telework in Sweden. *New Technol Work Employment*. 2016; 31:77–96.
8. Ojala S, Pyöriä P. Mobile knowledge workers and traditional mobile workers: assessing the prevalence of multi-locational work in Europe. *Acta Sociol*. 2018;61:402–418.

9. OECD BF. *Be Flexible! Background Brief on How Workplace Flexibility Can Help European Employees to Balance Work and Family*. OECD Publishing; 2016.
10. Ono H, Mori T. COVID-19 and telework: an international comparison. *Journal of Quantitative Description: Digital Media*. 2021;1:35.
11. Statistics Sweden. Labour force surveys. 2021. Available at: <https://www.scb.se/link/8e91894b42ee4358a5421637eeebfd51.aspx>. Accessed August 30, 2022
12. Schade HM, Digutsch J, Kleinsorge T, Fan Y. Having to work from home: basic needs, well-being, and motivation. *Int J Environ Res Public Health*. 2021;18:5149.
13. McKee H, Gohar B, Appleby R, Nowrouzi-Kia B, Hagen BNM, Jones-Bitton A. High psychosocial work demands, decreased well-being, and perceived well-being needs within veterinary academia during the COVID-19 pandemic. *Front Vet*. 2021;8:746716.
14. Tejero LMS, Seva RR, Fadrihan-Camacho VFF. Factors associated with work-life balance and productivity before and during work from home. *J Occup Environ Med*. 2021;63:1065–1072.
15. Carillo K, Cachat-Rosset G, Marsan J, Saba T, Klarsfeld A. Adjusting to epidemic-induced telework: empirical insights from teleworkers in France. *Eur J Inf Syst*. 2021;30:69–88.
16. van Zoonen W, Sivunen A, Blomqvist K, et al. Factors influencing adjustment to remote work: employees' initial responses to the COVID-19 pandemic. *Int J Environ Res Public Health*. 2021;18:6966.
17. Gerich J. Home-based telework and presenteeism: new lessons learned from the COVID-19 pandemic. *J Occup Environ Med*. 2022;64:243–249.
18. Greer TW, Payne SC. Overcoming telework challenges: outcomes of successful telework strategies. *Psychologist-Manager J*. 2014;17:87–111.
19. Mangia K. *Working From Home: Making the New Normal Work for You*. Hoboken, New Jersey: Wiley; 2020.
20. Lautsch BA, Kossek EE, Eaton SC. Supervisory approaches and paradoxes in managing telecommuting implementation. *Hum Relat*. 2009;62:795–827.
21. Sardeshmukh SR, Sharma D, Golden TD. Impact of telework on exhaustion and job engagement: a job demands and job resources model. *New Technol Work Employ*. 2012;27:193–207.
22. Dimitrova D. Controlling teleworkers: supervision and flexibility revisited. *New Technol Work Employment*. 2003;18:181–195.
23. Tietze S, Musson G, Scurry T. Homebased work: a review of research into themes, directions and implications. *Personnel Rev*. 2009;38:585–604.
24. Thatcher SM, Zhu X. Changing identities in a changing workplace: identification, identity enactment, self-verification, and telecommuting. *Acad Manage Rev*. 2006;31:1076–1088.
25. Allen TD, Johnson RC, Kiburz KM, Shockley KM. Work–family conflict and flexible work arrangements: deconstructing flexibility. *Pers Psychol*. 2013;66:345–376.
26. Redman T, Snape E, Ashurst C. Location, location, location: does place of work really matter? *Br J Manag*. 2009;20:S171–S181.
27. Knardahl S, Christensen JO. Working at home and expectations of being available: effects on perceived work environment, turnover intentions, and health. *Scand J Work Environ Health*. 2021;48:99–108.
28. Vander Elst T, Verhoogen R, Seru M, Van den Broeck A, Baillien E, Godderis L. Not extent of telecommuting, but job characteristics as proximal predictors of work-related well-being. *J Occup Environ Med*. 2017;59:e180–e186.
29. Rieth M, Hagemann V. The impact of telework and closure of educational and childcare facilities on working people during COVID-19. *Zeitschrift für Arbeits-und Organisationspsychologie*. 2021;65:202–214.
30. Dettmers J, Plüchhahn W. Suddenly working from home! Effects of the crisis on psychological job demands and resources and the role of telecommuting. *Zeitschrift für Arbeits-und Organisationspsychologie*. 2022;66:113–128.
31. Antonakis J, Atwater L. Leader distance: a review and a proposed theory. *Leadersh Q*. 2002;13:673–704.
32. Nayani RJ, Nielsen K, Daniels K, Donaldson-Feilder EJ, Lewis RC. Out of sight and out of mind? A literature review of occupational safety and health leadership and management of distributed workers. *Work Stress*. 2018;32:124–146.
33. Sewell G, Taskin L. Out of sight, out of mind in a new world of work? Autonomy, control, and spatiotemporal scaling in telework. *Organ Stud*. 2015;36:1507–1529.
34. Felstead A, Jewson N, Walters S. Managerial control of employees working at home. *Br J Ind Relations*. 2003;41:241–264.
35. Chirico F, Zaffina S, Di Prinzio RR, et al. Working from home in the context of COVID-19: a systematic review of physical and mental health effects on teleworkers. *J Health Soc Sci*. 2021;6:319–332.
36. Fila MJ, Purl J, Griffith RW. Job demands, control and support: meta-analyzing moderator effects of gender, nationality, and occupation. *Hum Resour Manag Rev*. 2017;27:39–60.
37. Liebermann SC, Wegge J, Müller A. Drivers of the expectation of remaining in the same job until retirement age: a working life span demands-resources model. *Eur J Work Organ Psy*. 2013;22:347–361.
38. Carroll GR, Harrison JR. Organizational demography and culture: Insights from a formal model and simulation. *Admin Sci Q*. 1998;637–667.
39. Louis MR. Surprise and sense making: what newcomers experience in entering unfamiliar organizational settings. *Adm Sci Q*. 1980;25:226–251.
40. Weick KE. *Sensemaking in Organizations*. Thousand Oaks, CA.: Sage; 1995.
41. Filstad C. How newcomers use role models in organizational socialization. *J Workplace Learn*. 2004;16:396–409.
42. Kammeyer-Mueller JD, Livingston BA, Liao H. Perceived similarity, proactive adjustment, and organizational socialization. *J Vocational Behav*. 2011;78:225–236.
43. HSLF-FS 2020:12. Folkhälsomyndighetens föreskrifter och allmänna råd om allas ansvar att förhindra smitta av covid-19 m.m.: Public Health Agency of Sweden.
44. HSLF-FS 2020:50. Föreskrifter om ändring i Folkhälsomyndighetens föreskrifter och allmänna råd (HSLF-FS 2020:12) om allas ansvar att förhindra smitta av covid-19 m.m.: Public Health Agency of Sweden.
45. Public Health Agency of Sweden. 2022. Available at: <https://www.folkhalsomyndigheten.se/publikationer-och-material/foreskrifter-och-allmannarad/om-lagar-forordningar-och-foreskrifter/>. Accessed November 11, 2022.
46. Försäkringskassan. 2022. Available at: <https://www.forsakringskassan.se/english/parents/care-of-a-sick-child-vab>. Accessed November 11, 2022.
47. Virtanen M, Kivimäki M, Elovainio M, Vahtera J, Cooper CL. Contingent employment, health and sickness absence. *Scand J Work Environ Health*. 2001;27:365–372.
48. Berthelsen H, Westerlund H, Bergström G, Burr H. Validation of the Copenhagen Psychosocial Questionnaire Version III and establishment of benchmarks for psychosocial risk management in Sweden. *Int J Environ Res Public Health*. 2020;17:3179.
49. Gadeyne N, Verbruggen M, Delanoije J, De Cooman R. All wired, all tired? Work-related ICT-use outside work hours and work-to-home conflict: the role of integration preference, integration norms and work demands. *J Vocational Behav*. 2018;107:86–99.
50. Echambadi R, Hess JD. Mean-centering does not alleviate collinearity problems in moderated multiple regression models. *Mark Sci*. 2007;26:438–445.
51. de Klerk JJ, Joubert M, Mosca HF. Is working from home the new workplace panacea? Lessons from the COVID-19 pandemic for the future world of work. *SA J Ind Psychol*. 2021;47. doi:104102/sajipw47i01883.
52. Chung H, van der Lippe T. Flexible working, work–life balance, and gender equality: introduction. *Soc Indic Res*. 2020;151:365–381.
53. Zhang S, Moeckel R, Moreno AT, Shuai B, Gao J. A work-life conflict perspective on telework. *Transp Res Part A Policy Pract*. 2020;141:51–68.
54. Çoban S. Gender and telework: work and family experiences of teleworking professional, middle-class, married women with children during the COVID-19 pandemic in Turkey. *Gen Work Organ*. 2021;29:241–255.
55. Försäkringskassan. 2021. *Så delade föräldrar på vaben under pandemin*. Retrieved from <https://www.forsakringskassan.se/privatpers/sa-delade-foraldrar-pa-vabben-under-pandemin>. Accessed November 11, 2022.
56. Delanoije J, Verbruggen M, Germeys L. Boundary role transitions: a day-to-day approach to explain the effects of home-based telework on work-to-home conflict and home-to-work conflict. *Human Relations*. 2019;72:1843–1868.
57. Jeffrey Hill E, Jacob JI, Shannon LL, et al. Exploring the relationship of workplace flexibility, gender, and life stage to family-to-work conflict, and stress and burnout. *Community, Work & Family*. 2008;11:165–181.
58. Abdel Hadi S, Bakker AB, Häusser JA. The role of leisure crafting for emotional exhaustion in telework during the COVID-19 pandemic. *Anxiety Stress Coping*. 2021;34:530–544.
59. Maruyama T, Tietze S. From anxiety to assurance: concerns and outcomes of telework. *Personnel Rev*. 2012;41:450–469.
60. Venkatesh V. Determinants of perceived ease of use: integrating control, intrinsic motivation, and emotion into the technology acceptance model. *Information Systems Research*. 2000;11:342–365.
61. Neves BB, Amaro F, Fonseca JRS. Coming of (old) age in the digital age: ICT usage and non-usage among older adults. *Sociological Res Online*. 2013;18:22–35.
62. Scheibe S, De Bloom J, Modderman T. Resilience During crisis and the role of age: involuntary telework during the COVID-19 pandemic. *Int J Environ Res Public Health*. 2022;19:1762.
63. Van Steenberghe EF, van der Ven C, Peeters MCW, Taris TW. Transitioning towards new ways of working: do job demands, job resources, burnout, and engagement change? *Psychol Rep*. 2018;121:736–766.
64. Wang B, Liu Y, Qian J, Parker SK. Achieving effective remote working during the COVID-19 pandemic: a work design perspective. *Appl Psychol*. 2021;70:16–59.
65. Pulido-Martos M, Cortés-Denia D, Lopez-Zafra E. Teleworking in times of COVID-19: effects on the acquisition of personal resources. *Front Psychol*. 2021;12.
66. Thulin E, Vilhelmson B, Johansson M. New telework, time pressure, and time use control in everyday life. 2019;11:3067.