



Overall Job Performance, Remote Work Engagement, Living With Children, and Remote Work Productivity During the COVID-19 Pandemic

A Mediated Moderation Model

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Abstract: The COVID-19 pandemic caused a significant and rapid shift from work in presence to remote work (RW). This rapid change represented a challenge for employees, who had to deal with new work procedures in houses often crowded with their children. This study investigated whether the engagement toward this work arrangement mediates the relationship between perceived overall job performance and employees' remote work productivity. Furthermore, it tested whether the relationships between perceived overall job performance and RW productivity as well as between RW engagement and RW productivity are moderated by living with children under 18. This quantitative, cross-sectional, study was conducted in an Italian municipality and involved a sample of employees who started to work remotely after the spread of the pandemic. A total of 171 public servants answered an online questionnaire. Regression analysis showed a significant relationship between perceived overall job performance and RW productivity and the mediation of this relationship by RW engagement. The moderation role of living with minor children was confirmed, although this modulation mechanism had two opposite effects on the tested relationships. On the whole, the results suggest that HR professionals and organizations need to develop support policies that take into account employees' specific characteristics.

Keywords: remote work, remote work engagement, remote work productivity, perceived job performance, COVID-19

To contain the spread of the COVID-19 pandemic, millions of employees and organizations worldwide were forced to quickly adopt remote work (RW) measures (International Labour Organization, 2020; OECD, 2020). At the beginning of the pandemic, employees were forced to work remotely – at home – to reserve offices for employees providing necessary in-presence services. During the health emergency in 2020, many studies explored the job demands (e.g., working longer or outside usual office hour office, work-family conflict) and job resources (e.g., increased job autonomy, support from colleagues and superiors) that were influencing employees' productivity during the COVID-19, especially when working remotely (Galanti et al., 2021; Jamal et al., 2021; Kumar et al., 2021; Pauline Ramos & Tri Prasetyo, 2020; Toscano & Zappalà, 2020b).

Even contextual variables, like those characterizing the home environment and the family composition (Galanti et al., 2021; Kumar et al., 2021) seem related to employees' productivity when working remotely (Galanti et al., 2021; Kumar et al., 2021).

When the confinement measures were slowly lifted in June 2020, many Italian employees continued to work remotely at home, whether full-time or for at least two or three days a week, in order to rotate and limit the number of people working on-site. In this pandemic situation, for the first time, many employees performed their usual job tasks in an unusual context: their home instead of the office. In this transition, it is unknown what the role previous job performance may have had on employees' remote work performance and their motivation to work effectively in

the remote work situation. Thus, although employees' perception of productivity, intended as the general perception that individuals have on their ability to work with good results (Campbell et al., 1993), is usually tested as an outcome in work psychology research, in this study, we investigate the role of perceived previous performance as a predictor of remote work motivation and perceived remote work productivity, experienced when remote work was a forced situation and not a choice because of COVID-19.

The relationship between overall work performance and productivity in employees who work remotely is so far unexplored. This study looks at this relationship based on previous research on the stability and change of performance (Alessandri & Borgogni, 2015; Campbell et al., 1993; Zyphur et al., 2008) and the role of perceived previous performance in influencing employees' subsequent work engagement and perceived productivity (Rodríguez-Sánchez et al., 2020). Additionally, it investigates whether this relationship is mediated by the RW engagement, a type of work engagement experienced when working remotely. Finally, this research contribution reflects that the pandemic has forced the closure not only of many offices but of almost all schools and many of the centers that children attend in their free time (e.g., sports facilities or language courses). Therefore, the experience of remote work during the pandemic was dramatically influenced by the permanent presence of family members at home (Xiao et al., 2021), which in turn affected the job productivity of remote workers (Galanti et al., 2021; Xiao et al., 2021). Thus, this study also investigates the potential moderating effect the presence at the home of children may have on the relationship between perceived overall job performance and perceived RW productivity, and between RW engagement and perceived RW productivity.

In accordance with predictions that presume that remote work will expand more and more in the future and will complement, but not replace, on-site work (Allen, Regina et al., 2021; Sinclair et al., 2020), we consider it of utmost importance to examine the relationship between the perception of overall performance and RW productivity, especially since COVID-19-related uncertainties continue.

The following section presents the theoretical basis and the hypotheses of the study. After the Methodology and the Result sections, the article closes with Discussion and Conclusion sections.

Literature Review and Hypotheses

Job performance has been defined as the role-prescribed behavior that forwards organizational goals, and it is a function of knowledge, ability, skills, and motivation (Campbell et al., 1993). In addition to cognitive abilities and skills, work

characteristics (e.g., skill variety or task significance) and situational constraints (e.g., problems with machines or lack of necessary information) also positively or negatively affect job performance (Sonnentag et al., 2008). Despite this multiplicity of influencing factors, however, most research has assumed that job performance is relatively stable and does not change as long as the situation remains constant and no learning occurs (Sonnentag et al., 2008).

Research on intraindividual variability and change of performance is providing contrasting results, with earlier studies showing individual performance stability (Barrett et al., 1985), whereas more recent studies show changes across the career stages (Alessandri & Borgogni, 2015; Austin et al., 1989), thus suggesting that the performance of younger and older employees tends to change over time. It has also been suggested that performance tends to change during the transition stage (when an employee is new to the job or the job's major aspects change), while it is more stable during the maintenance stage (when an employee has well learned major tasks requirements) (Murphy, 1989).

Some psychological and contextual factors seem to suggest that previous performance may influence future performance. Goal-setting theory (Locke & Latham, 2002) and the control theory of self-regulation (Carver & Scheier, 2000), for example, indicate that individuals are aware of their performance and use this performance feedback to better regulate their future behaviors. It can be argued that individuals use their overall performance to establish the level of discrepancy between actual and desired performance and regulate their performance to decrease that discrepancy. Similarly, organizations tend to appreciate, recognize, and, in some cases, reward high-performing employees who, according to behavioral theory, tend to maintain a high level of performance to continue receiving such positive reinforcement.

Considering that the remote work done during the COVID-19 consisted mainly in transferring most of the job activities to the home, it can be expected that the major job tasks, abilities, and knowledge needed to perform them remained unchanged. The main change was the place where the job had to be done and the technological tools to connect to the office, colleagues, supervisors, and/or customers. Therefore, based on previous literature, we hypothesize the following:

Hypothesis 1 (H1): Perceived overall job performance is positively related to perceived remote work productivity.

Job performance is typically considered a dependent variable in research. However, previous studies examined the reciprocal effect between job performance and some of its predictors (e.g., Hakonen et al., 2008; Maynard

et al., 2014). Specifically, job performance is influenced, among other things, by work motivation (Sonnentag et al., 2008); however, as mentioned above, according to goal setting theory (Locke & Latham, 2002) and control theory of self-regulation (Carver & Scheier, 2000), individuals use previous performance to regulate their future performance and, accordingly, also regulate work motivation (Zyphur et al., 2008). Even the social cognitive theory describes a reciprocal relationship between job performance and self-efficacy (Bandura, 1997) and between job performance and empowerment (Maynard et al., 2014). In addition, the job demands-resources (JD-R) theory, which proposes that job performance is influenced by the motivational process whose fulcrum is work engagement (Bakker & Demerouti, 2017), contemplates the reciprocal relationship between contextual performance and work engagement (Simbula & Guglielmi, 2013). Such results may be explained using the conservation of resources theory (COR; Hobfoll et al., 2018), which establishes that individuals who have more resources increase their work engagement and consequently their job performance, resulting in their obtaining even more resources. Following this reasoning, and considering that both self-confined remote work and the re-entry to office work, with alternation between presence and home work, were mandated by law and by employers and thus were established as the regular means of working (at least during that period), we argue that individuals who perceive themselves to have had a high level of job performance assume having had a high level of work engagement; and that, to confirm this personal characteristic, they self-regulate their motivation by engaging also in the different and unusual work situation of the remote work. Accordingly, employees' perception of remote work performance is related both to their previous performance and to their remote work engagement. Thus, we posit the following:

Hypothesis 2 (H2): Perceived overall job performance is positively associated with employees' RW engagement.

Hypothesis 3 (H3): RW engagement is positively associated with the employees' perceived RW productivity.

Hypothesis 4 (H4): RW engagement positively mediates the relationship between perceived overall job performance and perceived RW productivity.

Recent studies described the remote work experience during COVID-19 as characterized by work-home interference (Wang et al., 2021). The COVID-19 pandemic filled the workspace necessary for remote work with the

presence of employees' partners and children, who were involved, respectively, in their work and school activities. The home setting was often unsuitable to hosting the whole family engaged in full-time study and work activities (Xiao et al., 2021), which generated a distracting environment. In addition, the disruption of child-care and education services observed during the pandemic, and the need to more greatly contribute to household chores affected remote workers (Galanti et al., 2021; Xiao et al., 2021). For example, employees had to regularly prepare meals for the whole family at least three times a day (breakfast, lunch, and dinner), and to assist children with their online distance learning in the morning and/or with their homework in the afternoon, along with spending some time with them when their homework was completed. As a result, the COVID-19 pandemic impacted remote work with an increased family-work conflict, thereby negatively affecting job productivity (Galanti et al., 2021).

Theory on boundary management underlines the importance of boundary management for employees (Chen et al., 2009). In the RW performed during the COVID-19 pandemic, it was impossible to choose integrating or keeping work and family domains separated – because they necessarily had to be integrated. This fact resulted in a misalignment between preferences and the actual situation especially for those employees who prefer to segment work and family affairs, and those with inadequate home arrangements (Allen, Merlo et al., 2021), who substantially had to tolerate the presence of children in the house. In other words, employees who were accustomed to separating work and family issues now had to manage both of them simultaneously. Consequently, despite perceptions of good previous performance, employees with children at home all day long, to take care of, talk to or play with, probably perceive a decreased remote work performance compared to employees who do not have children at home to take care of. Similarly, despite the high engagement with remote work, the stable presence of children at home – all day long – with the need to look after them may promote the perception that the actual remote work performance is negatively affected by their presence, compared to employees without children at home. Accordingly, we hypothesize the following:

Hypothesis 5 (H5): Living with children under 18 negatively moderates the relationship between perceived overall job performance and perceived RW productivity.

Hypothesis 6 (H6): Living with children under 18 negatively moderates the relationship between RW engagement and perceived RW productivity.

Method

Participants and Procedure

The data collection for this study took place in July 2020, 4 months after the outburst of the pandemic, after 3 months of self-confinement of a large part of Italian employees, and 1 month after many private and public offices had reopened to employees and to the public. The study was conducted in an Italian municipality. It was proposed to all employees that, after the mandatory experience of working the whole week remotely, they were to continue to work remotely, in this case mandatorily alternating working at home and the office during the week. An email sent from the municipality HR department invited employees to answer an online questionnaire available on the Qualtrics platform of the University where the researchers work. The questionnaire included items about general aspects of employees' work and their experience with remote work. At that time (July 2020), these workers had experienced remote work because of the COVID-19 emergency for about 4 months, and most of them had had no prior experience with it.

The municipal employees participating in the study consisted of 171 employees (72.4% F, 27.6% M). Most of them were in the 46–55 age group (50.3%), while 24.9% were in the 56–65 age group, 18.3% in the 36–45 age group, and 6.5% were under 35 years old. Over half of them had a university degree (52.3%), while the remaining had a high-school diploma. One participant had completed only middle school. About half of the study participants reported having no minor children at home ($n = 88$, 51.4%) (because they had no children, they did not live with them or have children older than 18 years), while 81 reported having children under the age of 18. All participants gave their informed consent for data collection before starting to fill the questionnaire.

Measures

Overall Job Performance

The overall perceived job performance was measured using four items of the measure developed by Staples et al. (1999). Items were answered using a 7-point Likert scale (1 = *completely disagree*, 7 = *completely agree*). The scale was included in a section of the questionnaire addressing general job experience. Respondents answered considering their job performance in general, without any reference to the pandemic. Two examples of items are: “I am a highly productive worker”, “I work efficiently.” The Cronbach's α for this scale was .87.

RW Engagement

This was measured using the three items of the Ultra-Short Measure for Work Engagement (Schaufeli et al., 2019). The

Italian version of the full work engagement scale was provided by the same authors (Schaufeli & Bakker, 2004), and we used the three items of the ultra-short measure. The instructions were adapted to the remote work condition asking respondents to refer to the experience of remote work (“When I work remotely . . .”). Items were answered using a 7-point Likert scale (1 = *completely disagree*, 7 = *completely agree*). An example of an item is: “(When I work remotely ...) I am enthusiastic about my job.” The Cronbach's α for this scale was .83.

RW Productivity

This was measured using a 7-item measure developed ad hoc for this study. Items were answered using a 7-point Likert scale (1 = *very poor*, 7 = *excellent*). The instruction required respondents to assess the performance they were having, in that period, when working remotely (“On the whole, how do you assess the performance you have in this period, when you work remotely, concerning the following aspects ...”). The respondents assessed seven facets of work: quality of work, productivity (amount of work completed), adherence to deadlines, speed of response to problems and opportunities, taking initiatives, communication of work progress, and overall performance. The Cronbach's α for this scale was .92.

Living with Children Under 18

The presence of children under 18 at home was assessed through a simple question: “Do children under 18 currently live with you?” The possible answers were 1 = *No children under 18 live with me* and 2 = *Yes, at least a child under 18 lives with me*.

Control Variables

Age, sex, and tenure were controlled because previous studies reported that they have a role in affecting some outcomes of remote work (Allen et al., 2015; Gajendran & Harrison, 2007; Toscano & Zappalà, 2020a).

Data Analysis

To assess the measurement model and the structural validity of the measures used, we ran three confirmatory factor analyses (CFAs). To assess convergent and divergent validity and the reliability of the scales, we computed, respectively, the average variance extracted (AVE), the maximum shared variance (MSV), and composite reliability (CR). We then computed descriptive analyses, correlations, and Cronbach's α s. Finally, we tested the study hypotheses using Model 15 of the PROCESS macro for SPSS. All analyses were performed through Mplus 8 and SPSS 26.

Table 1. Descriptive statistics, correlations, and Cronbach's α s for the study variables

Variables	<i>M</i>	<i>SD</i>	1	2	3	4
1. Overall job performance	5.88	.81	(.87)	.26**	.50**	.04
2. RW engagement	5.29	1.10		(.83)	-.44**	-.07
3. RW productivity	5.93	0.69			(.92)	.01
4. Children under 18 (1 = No, 2 = Yes)	1.44	0.50				

Note. ** $p < .01$; Cronbach's α s are in the main diagonal.

Results

Validity and Reliability of the Scales

To test the structural independence of the four measures of our model, and the absence of a common latent factor, we conducted three CFAs, comparing a 1-factor model with a 3-factor model and a 4-factor model. The fit of the 1-factor model, in which all items were grouped in a single factor, was not particularly satisfying (chi-square = 570.02; $df = 90$; CFI = .70; TLI = .65; RMSEA = .18; SRMR = .12). The fit improved, but not very much, in a 3-factor model in which overall performance and RW productivity were combined and RW engagement and living with children were considered separately (chi-square = 395.43; $df = 88$; CFI = .81; TLI = .77; RMSEA = .14; SRMR = .10). Finally, the fit improved to acceptable values in the 4-factor model, when all the study measures were considered separately. The results showed a very good fit (chi-square = 134.99; $df = 85$; CFI = .97; TLI = .96; RMSEA = .06; SRMR = .05), confirming the structural validity of the measurement model.

The average variance extracted (AVE) scores for the three scales we used were all greater than .64 (cut-off > .50; Hair et al., 2018), which indicates good convergent validity. These values were also all greater than the maximum shared variance scores (maximum shared variance [MSV] = .34), indicating discriminant validity. Thus, we conclude that the study measures have good validity. Furthermore, all scales we used reported even good reliability values, because both Cronbach's α s (reported above when describing the scales we used) and composite reliability (CR) scores were in the range .83–.93, well above the usually accepted cut-off value of .70 (Hair et al., 2018).

Descriptive Analyses and Correlations

Descriptive statistics, correlations, and Cronbach's α s are reported in Table 1. The descriptive statistics revealed scores above the midpoint of the scale (the scales were 1 to 7, so the value indicating mid or average level was 4) for overall job performance ($M = 5.88$; $SD = .81$), RW engagement ($M = 5.29$; $SD = 1.10$) and RW productivity ($M = 5.93$; $SD = .69$). The correlations showed significant relationships

between the study variables, except for living with minor children, which did not show a significant relationship with the other three variables. The relationship that overall job performance had with RW engagement was significant but weak ($r = .26$; $p < .01$), while that between overall job performance and RW productivity was stronger ($r = .50$; $p < .01$). Finally, no control variables showed significant correlations with the study variables; for this reason, they were not included in the following analyses.

Model Testing

The test of the hypothesized model using the PROCESS macro confirmed, first, the association of overall job performance with RW productivity ($B = .21$; $p < .01$; H1 confirmed) and, second, with RW engagement ($B = .36$; $p < .01$; H2 confirmed). Results also showed that RW engagement was significantly related to RW productivity ($B = .29$; $p < .01$; H3 confirmed), thus confirming the mediating effect of RW engagement in the relationship between overall performance and RW productivity (H4 confirmed).

We then tested the moderating effect of living with children under 18 on the relationship between overall performance and RW productivity and between RW engagement and RW productivity. In the first case, we observed that living with children under 18 had no relationship with RW productivity ($B = -1.10$; $p = .11$). On the other hand, living with children under 18 positively moderated the relationship between overall performance and RW productivity ($B = .34$; $p < .01$), which describes a significant, but opposite mechanism to that hypothesized in H5. As Figure 1 shows, at lower levels of overall performance, employees not living with children under the age of 18 reported higher RW productivity scores than their colleagues living with children under the age of 18. On the other hand, when the perception of overall performance was higher, RW productivity was higher in employees living with children under 18 than in those without children under 18.

Despite the absence of a relationship between living with children under 18 and RW productivity, testing the other moderating mechanism revealed a significant moderation between RW engagement and RW productivity. In this second case, its effect was less strong ($B = -.16$; $p = .04$) than

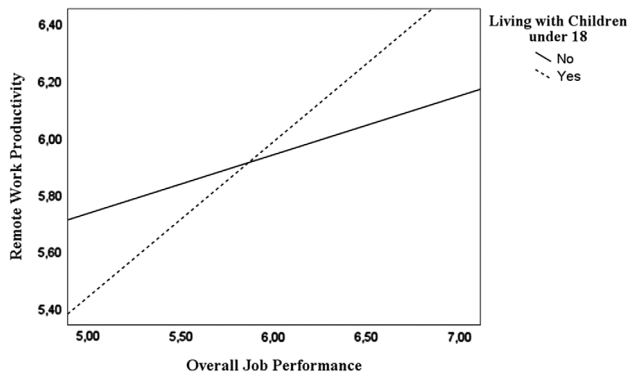


Figure 1. Moderation effect of living with children under 18 on the relationship between perceived overall job performance and RW productivity.

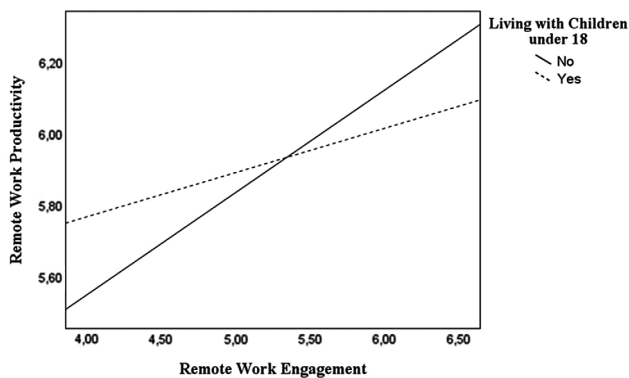


Figure 2. Moderation effect of living with children under 18 on the relationship between RW engagement and RW productivity.

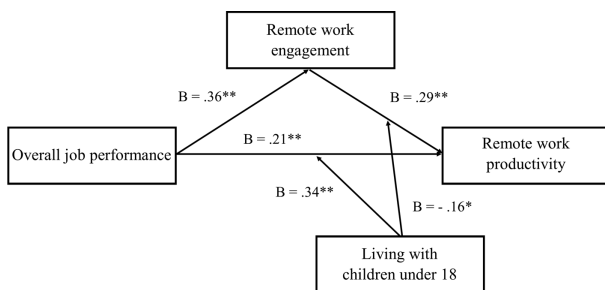


Figure 3. Results of the tested model. Indirect effects of overall job performance on remote work productivity via remote work engagement: $B = .10$ [.02, .23] in the condition of employees not living with children under the age 18; $B = .05$ [.01, .12] in the condition of employees living with children under the age 18. * $p < .05$; ** $p < .01$.

the previous one, and in the hypothesized direction (H6 confirmed). Thus, as Figure 2 shows, at lower levels of RW engagement, RW productivity was higher in employees living with children under 18 while, at higher levels of RW engagement, RW productivity was higher in employees not living with children under 18.

Finally, the study results show a significant moderated mediation effect when considering the indirect relationship between overall job performance and RW productivity through RW engagement. In particular, this indirect effect was $B = .10$ [.02; .23] for employees not living with children under the age of 18, and $B = .05$ [.01; .12] for the other employees. Figure 3 shows the results of the entire tested model.

Discussion

In a sample of Italian public employees, this study assessed whether remote work engagement experienced during the COVID-19 pandemic mediated the relationship between the perception of overall job performance and RW productivity. Furthermore, it also tested whether living with children under 18 in the house moderated the relationships between overall job performance and RW productivity, on the one hand, and RW engagement and RW productivity, on the other hand.

The tested model showed a significant direct relationship between overall job performance and RW productivity, confirming that people's perceptions of their productivity tend to be related to the performance they exhibit even when faced with a major change in how they work, such as the shift to remote work prompted by the pandemic. Furthermore, results show that the perception of being a high-performing employee was associated with their engagement toward the new way of working, which in turn was related to the perception of being a productive employee even in the new work arrangement.

Our results are in line with the theories mentioned in the first part of this manuscript. When performing at home, employees' job productivity was related to their overall perception of performance, which confirms the intraindividual stability of performance (Sonnetag et al., 2008; Zyphur et al., 2008) – although we recognize that we measured two different types of performance (overall and specific). But since employees worked remotely systematically for weeks and months, we assume that, in the remote work during the pandemic, employees performed at home a large part of the work they would have usually performed in the office, thus making overall and remote work performance comparable for many aspects. Except for the technical skills necessary to manage the new way of working (e.g., the information systems needed to operate and exchange files with the central office server), most of the skills and abilities related to task performance were similar regardless of working remotely or in presence in the office; this may explain the positive correlation between the two performance measures.

In accordance with the concept of self-efficacy proposed by Bandura (1997), our results confirm that people tend to

maintain the same level of performance even when facing new situations. This effect results from both previous performance (a sort of self-referenced self-fulfilling prophecy) and the activation of the motivational process here defined as RW engagement.

According to the JD-R model, remote work engagement confirms to be related to remote work productivity. Although this study did not consider the overall work motivation, based on the consistent evidence that work engagement predicts job performance (Bakker & Demerouti, 2017) and the reciprocal effect between motivation and performance (Simbula & Guglielmi, 2013), this study suggests that work motivation might lead to job performance, which in turn leads to remote work engagement and then to remote work performance. In addition, we observed the indirect effect of job performance on remote work productivity. In other words, this process fully confirms the positive spiral theorized by the last update of the COR theory (Hobfoll et al., 2018), which clearly underlines that, substantially, positive past perceptions trigger positive future perceptions; the same is true for negative ones. Furthermore, even the self-expansion approach (Mattingly & Lewandowski, 2013) may explain the relationship between overall performance and RW productivity. According to this theory, new activities (in this case, switching to RW) support the development of people's resources through their engagement with the new activities. The theory can, thus, explain an intraindividual expansion driven by an external condition (such as working at home). This theoretical approach also emphasizes the importance that other individuals can have in stimulating the generative process of self-expansion. Although not initially postulated by us, according to this theory, the positive moderating effect of living with children on the relationship between overall performance and RW productivity can be explained by the energizing effect and mutual exchange of resources that takes place between close people, leading to self-expansion. The theory suggests that individuals compare their current self with their potential self and include in their potential self the perspectives, resources, and needs of the other person they come into close contact with. In the case of already productive employees, the image of their potential self, which includes the perspectives and needs of their children, may motivate the employees to become more active (Aron et al., 2013), for example, by taking care of their children at home (to answer their needs). This activation may lead employees to seek self-expansion and their taking care both of their work and their children, resulting even in better work performance.

Alternatively, the unexpected positive moderation of living with minor children in the relationship between overall job performance and RW productivity can also

be explained by considering that already productive employees may be more accustomed to managing children at home during the pandemic. They may have an integration boundary preference (Chen et al. 2009) and may find themselves prepared to simultaneously manage work and family life.

Furthermore, it should not be underestimated that having the children at home during the pandemic also meant avoiding having to take them to school or to other places they usually go, that is, driving or walking to more distant and less comfortable places than the home environment. In this context, taking care of children at home may be considered an opportunity and a resource that saves much time spent on activities outside the home; as a resource, it is compatible with the positive spiral described by the COR theory (Hobfoll et al., 2018). On the other hand, for employees less accustomed to working at high performance, living with children may represent an additional burden conducive to lower productivity in remote work.

The moderation of the relationship between RW engagement and RW productivity was more coherent with our initial expectations since it showed that RW productivity was higher for low-engaged employees with children, but RW productivity was higher when employees were more engaged with remote work and did not have children at home. This result, in line with our hypothesis, shows that RW engagement is less effective in influencing RW productivity when employees have to take care of their children.

The latest version of the JD-R model theory underlines that job demands, such as family-work conflict, can moderate the relationships between personal and work resources, on the one hand (in our case, the individuals' perception of themselves as efficient job performers), and motivation (RW engagement), on the other hand (Bakker & Demerouti, 2017). However, it does not suggest any moderating role of demands in the relationship between work engagement and its outcomes, which we believe do exist. We suggest that, when people work remotely, living with children at home represents a job demand that moderates the relationship between RW engagement and its outcomes in terms of productivity, and we believe that this influential role between motivation and productivity in remote work is peculiar in a forced telecommuting context such as the one analyzed.

Study Limitations

Like all studies, this research has several limitations that limit the results' generalizability but do not nullify its theoretical and practical implications. In particular, this study examined, albeit with an exploratory character, the influence of overall performance on remote work productivity,

a relationship that, until now, has been addressed only theoretically. However, we think it is important to continue with studies investigating the link between overall performance and subsequent productivity in specific contexts. Furthermore, the cross-sectional design of the study decreases the inferential power of our results and cannot be considered fully coherent with the causal, and unidirectional, assumptions characterizing a moderated mediation model. Nonetheless, we point out that we used several measures to reduce the potential common method variance. In particular, in the questionnaire, (1) the scales measuring the study variables were placed far from each other; (2) two different response sets were used for the two performance measures (*completely disagree-completely agree vs. very poor-excellent*), and (3) different introductory texts to the questions were used to create a psychological distance in the answers to the various constructs (the job in general vs. the remote work experience). Furthermore, even the results of the CFAs suggest that there is no evidence of a common method bias (CMB). Another limitation of the study concerns the sample, which consists of public employees only, working in one organization. In addition, we could not distinguish employees who had had previous experience of remote work and those who started working remotely during the pandemic.

Finally, further limitations of our study are the use of a dichotomous variable “Yes-No” to assess whether the employees lived with minor children, without quantifying their number, and the use of self-report measures to assess past and actual job performance, the consistency of which with objective measures is well debated (Pransky et al., 2006; Wall et al., 2004).

Theoretical and Practical Implications

Despite the limitations, however, we believe our study opens up many important research questions. First, future research might include social variables (e.g., leaders’ and colleagues’ perception about other employees’ performance) in studying the processes that influence the perception of personal productivity in remote work. Not only people’s perceptions about themselves, but also about other employees, can play a fundamental role in determining one’s productivity in remote work (the Pygmalion or Rosenthal effect; e.g., Veestraeten et al., 2021). Therefore, we think that including the consideration of feedback from others may help in understanding the relationship between people’s overall job performance and RW productivity. Furthermore, we believe that the moderating influence of family and job demands, such as the one studied in this study, that is, living with children to care for, should be explored not only as a factor affecting the relationship

between predictors of work engagement and work engagement, as theorized by the JD-R model (Bakker & Demerouti, 2017); rather, it should also be tested in the relationships between motivational aspects (e.g., work engagement) and productivity outcomes. Moreover, the role of this moderating variable along the relationships tested in our study should also be investigated by considering the employees’ boundary management preferences.

In addition to the theoretical implications, some practical implications can be gathered from this study. The positive relationships that overall job performance and RW engagement have with RW productivity should also be considered by looking at the employees reporting lower job performance. Managers should consider that people who work less well in the office are likely to work poorly even at home, especially if they have children to care for. Where and when conditions (e.g., health emergency) allow it, therefore, it is possible to prioritize the return to the office of these employees who do not benefit from, and might suffer from, remote work. In contrast, employees who are usually productive may find in remote work a solution that improves their effectiveness at work and probably also their skills to cope with parenting commitments. This aspect may be very relevant for professionals and managers, who may be skeptical about granting remote work to their high-performing employees with children to take care of, so as not to alter their already positive results.

In the case of employees without minor children, in particular, it would be good to assess their engagement toward this work arrangement before deciding whether or not to grant it to them and implement some interventions to enhance the engagement for this type of work for those employees less engaged with it. At the same time, granting RW to employees not living with minor children should be particularly facilitated for workers highly engaged with this arrangement, considering that their productivity should remain high when working remotely.

In general, cases such as those described in this study suggest that disruptive events such as the arrival of a pandemic can be transformed into opportunities to expand the good practices of organizations. Organizations must be capable of extending remote work programs when the health emergency is over. When this happens, as when the constraints of the confinement measures are lifted, it is likely that organizations will benefit from the flexibility offered to their employees and will have to implement more hybrid forms of working that combine remote and in-presence work. Remote work, as suggested by research before the COVID-19 pandemic, should no longer be understood as an all-or-nothing proposition but can be based on remotization for only a few days (usually two or three) per week as a way of achieving the best benefits for individuals and organizations (Virick et al., 2010).

Conclusion

In this study, we explored the role of employees' perceptions of overall productivity and their engagement with remote work in a sample of Italian civil servants struggling with forced remote work for about four months during the pandemic by distinguishing workers living with minor children and not living with children or having children over the age of 18.

The results revealed many elements of attention. First, self-perceived overall performance both directly and indirectly influenced RW productivity. A moderating effect of living with minor children underlined that cohabiting with them made the relationship between the perceptions of overall performance and RW productivity stronger than in the condition of no minor children living together. In addition, the relationship between overall performance and RW productivity was mediated by RW engagement, revealing how motivation toward this arrangement is crucial for determining the outcomes of this way of working. Finally, the relationship between RW engagement and RW productivity was negatively moderated by living with children under 18. In this case, the influence of RW engagement on RW productivity showed a more beneficial effect for employees not living with minor children than in those cohabiting with children under 18.

Overall, the results show that both RW engagement and living with minor children play a key role in the relationship between overall job performance and RW productivity. This study provides some initial results for HR practitioners and professionals which, although observed in a pandemic situation, could be helpful even when the pandemic is over.

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Ethical Considerations and Disclosure

This research fully respects the Declaration of Helsinki. All the research ethical guidelines were followed.

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