LEISURE CRAFTING & TELEWORK

The Role of Leisure Crafting for Emotional Exhaustion in Telework During the COVID-19 Pandemic

Sascha Abdel Hadi (Sascha.Abdel-Hadi@psychol.uni-giessen.de)a, Arnold B. Bakker (bakker@essb.eur.nl)b, & Jan A. Häusser (Jan.A.Haeusser@psychol.uni-giessen.de)a

a Department of Psychology, Justus-Liebig-University Giessen, Otto-Behaghel-Str. 10D, 35394 Giessen, Germany; Phone: +496419926241

b Center of Excellence for Positive Organizational Psychology, Erasmus University Rotterdam, Woudestein Campus, Mandeville Building T13-47, P.O. Box 1738, 3000 DR Rotterdam, the Netherlands; Phone: +31104088853

Author Note

This work was supported by a grant from the German Research Foundation (HA6455/3-1 and HA6455/3-2)

Correspondence concerning this article should be addressed to Sascha Abdel Hadi, E-mail: Sascha.Abdel-Hadi@psychol.uni-giessen.de

This is an Accepted Manuscript of an article published by Taylor & Francis in Anxiety, Stress and Coping on 26 Mar 21, available online:

The Role of Leisure Crafting for Emotional Exhaustion in Telework During the COVID-19 Pandemic

Abstract

Background: After the worldwide outbreak of COVID-19 in 2020, many employees transitioned from in-office work to telework to slow down the spread of the virus. Building on the Job Demands-Resources model, we examined day-level relationships between job demands, home demands and emotional exhaustion during telework. Moreover, we tested if leisure crafting (i.e., the proactive pursuit and enactment of leisure activities targeted at goal setting, socializing, growth and development) is negatively related to emotional exhaustion. We expected that proactive personality would be positively related to leisure crafting. Finally, emotional exhaustion was predicted to relate negatively to job performance. Methods: We tested our assumptions using a daily diary study on seven consecutive days with 178 employees (964 observations in total). Results: Multilevel path analysis supports the assumptions that daily job demands as well as daily home demands during telework are positively related to emotional exhaustion. As predicted, we found leisure crafting to be negatively related to emotional exhaustion, and proactive personality to be positively related to leisure crafting. Finally, emotional exhaustion was negatively related to job performance. Conclusions: Overall, our study supports a health-promoting role of leisure crafting above the unfavorable relationships between job demands and home demands with emotional exhaustion.
LEISURE CRAFTING & TELEWORK

Keywords: COVID-19; telework; remote work; leisure crafting; job demands; home demands;

Introduction

After the World Health Organization (2020) categorized the outbreak of COVID-19 as a pandemic in March 2020, numerous countries imposed a lockdown that introduced strict rules regarding private and vocational life, particularly with respect to physical contact. Therefore, working remotely from home suddenly became a necessity for many employees in a broad range of occupational areas. According to preliminary estimations, about half of the US (Brynjolfsson et al., 2020) and the German (Bitkom, 2020) working population started teleworking after the start of the pandemic. Telework (also known as telecommuting, remote work, or virtual work) is characterized as working in a decentralized way and enables employees to work in locations distant from the main organization (Di Martino & Wirth, 1990). Although there are different forms of telework, in this study, we focus on telework as conducting work mainly from home.

A specificity of the lockdown during the COVID-19 pandemic was that many employees were forced to adapt to teleworking immediately with no preparation. All of a sudden, employees found themselves in an uncommon working environment, as until that point in time, office work was still the dominating way of working for a vast majority of employees (in Germany where the present study was conducted; cf. Rigotti et al., 2020). Consequently, employees might have been required to adapt to the new situation consisting of various stressors in a very short time frame, which may increase the danger of emotional exhaustion. Emotional exhaustion refers to a reduction in emotional resources and to feelings of being overextended and is one of the three key dimensions of burnout (Maslach & Jackson, 1981). It is related to lower general health status, including physiological problems and depression, as well as increased family difficulties, and a threat to social life (Maslach & Leiter, 2008).
LEISURE CRAFTING & TELEWORK

Moreover, restrictions due to the COVID-19 pandemic were not only bound to working life but also led to disruptions of daily leisure routines due to the policy-imposed ban of non-essential social contact and travel restrictions within and outside Germany (cf. Federal Ministry of Interior, Building, and Community of Germany, 2020). However, previous research found that leisure experiences, and particularly those including social interactions and physical activity, are important promoters of well-being (e.g., Janurek et al., 2018; Sonnentag, 2001). Hence, when being faced with the necessity to work from home during the COVID-19 pandemic, the implementation of other functional leisure activities is crucial to maintain well-being. Here, we propose that leisure crafting is a powerful way to (re-)create meaningful leisure experiences during the COVID-19 pandemic lockdown. Leisure crafting is defined as a proactive behavior during leisure time targeted at goal setting, human connection, learning, and personal development (Petrou & Bakker, 2016).

Our study makes three contributions to the existing literature. First, we apply the Job Demands-Resources (JD-R) model (Bakker & Demerouti, 2007; Demerouti et al., 2001) to teleworking during the COVID-19 pandemic by testing for relationships between job demands, home demands (and COVID-19-related rumination) and emotional exhaustion. As a theoretical extension to the JD-R model, we suggest leisure crafting as a specific resource for teleworkers that is negatively related to emotional exhaustion. To test our assumptions, we conducted a one-week diary study consisting of daily assessments with a sample of employees without a history of telework but who were forced to work from home due to the COVID-19 pandemic.

Second, we were interested to see which persons were successful in establishing effective leisure crafting in response to the immediate change from in-office work to telework. As leisure crafting is typically defined as a proactive form of behavior, we tested proactive personality as a predictor of leisure crafting.
Third, we used a within-person design to focus on intra-individual changes within a short time frame. A within-person perspective is most suitable to test our assumptions as employees found themselves in an unusual situation with a range of new requirements. Hence, employees had to dynamically adapt to a new situation in a short time frame, which makes intra-individual variation of the factors under study highly likely and informative (Bolger et al., 2003).

In the following, we will describe the theoretical underpinnings of the proposed relationships. The complete conceptual model of our study is presented in Figure 1.

**Job demands, home demands, rumination and emotional exhaustion**

In line with the JD-R model (Demerouti et al., 2001) numerous studies have shown that job demands can harm health and well-being (for an overview, see, e.g., Bakker & Demerouti, 2007; Häusser et al., 2010). In particular, the negative effects are most evident for psychological job demands like quantitative demands (e.g., high work intensity, time pressure; Elovanino & Sinervo, 1997) that require sustained investment of personal resources and are therefore associated with certain psychological and/or physiological costs (Demerouti et al., 2001). Moreover, a special challenge associated with telework is the requirement to balance both job and home demands (McNaughton et al., 2014). According to Peeters et al. (2005), home demands are defined as requirements that individuals are confronted with in the home domain. For example, this includes obligations related to childcare or the household. Therefore, working from home might be a blessing and a burden at the same time. On the one hand, it may offer increased flexibility to deal with multiple (conflicting) demands in the work-home interface. On the other hand, home demands might also become an increasingly important factor for emotional exhaustion, as teleworkers often spend more time at home (Konradt et al., 2003). This assumption finds support in a study by Konradt et al. (2003) that revealed relationships between telework and perceived stress through the experience of high home demands. For many employees, home demands have most likely increased during the
pandemic: Most evident, schools and childcare providers were closed during the lockdown, but also demands in food preparation (as restaurants and canteens were closed) or house cleaning increased.

Beyond balancing job and home demands, the COVID-19 pandemic constantly confronted employees with threatening new information regarding negative health consequences (and many other threats for the economy and society). Hence, this threatening information from the media or personal experience could be seen as a background stressor contributing to the development of emotional exhaustion through rumination. Rumination describes the dysfunctional process of unintentional perseverative thinking and is related to feelings of a loss of control (Cropley & Millward Purvis, 2003) and to lower levels of mental well-being in the form of higher stress levels (cf. Zoccola & Dickerson, 2012), higher negative affect (cf. Kirkegaard Thomsen, 2006) and higher emotional exhaustion (Luo & Bao, 2013).

Previous research has shown that job demands (Bakker, 2014), home demands (Volman et al., 2013), and rumination (e.g., Huffziger et al., 2013) show strong variations within individuals over days. Also, high day-to-day variations have been found for psychological well-being (e.g., Totterdell et al., 2006). Therefore, we argue that particularly daily variations in teleworkers’ job demands, home demands and COVID-19-related rumination should be considered when examining their relationships with emotional exhaustion, and put forward the following hypothesis:

**Hypothesis 1:** Daily job demands (a), daily home demands (b), and daily COVID-19-related rumination (c) are positively related to emotional exhaustion during telework.

**Leisure crafting and emotional exhaustion**

Leisure crafting was first defined by Petrou and Bakker (2016) as a strategy to proactively pursue leisure activities targeted at goal setting, human connection, learning, and personal development. It describes the creation of meaning through leisure activities that offer the
LEISURE CRAFTING & TELEWORK

opportunity to challenge oneself by committing to a long-term goal (de Bloom et al., 2020; Petrou et al., 2017). As an example, leisure crafting might be expressed as the decision and commitment to learn new skills, like a new language or a new sport. Thereby, it is different from mere engagement in leisure-time activities as seeking and committing to new challenges is a crucial element of the leisure crafting construct (Petrou & Bakker, 2016).

Even though, to the best of our knowledge, no study has tested for effects of leisure crafting on health and well-being, there is mounting evidence regarding the positive effects of leisure-time behavior (e.g., engaging in leisure-time physical activity; cf. Häusser & Mojzisch, 2017). Daily leisure-time behavior, like engagement in leisure-time sports activities, has the potential to foster detachment from work and to create feelings of mastery, with both being positively related to recovery from work (Sonntag & Fritz, 2007).

Integrating these findings with the assumptions of the JD-R model (Demerouti et al., 2001), we suggest daily engagement in leisure crafting as a personal resource that has the potential to decrease daily emotional exhaustion as it facilitates recovery, for instance, by unwinding from stressors through feelings of detachment, and the experience of mastery and control.

With regard to the COVID-19 pandemic, leisure crafting might play a crucial role in maintaining health and well-being, as, on the one hand, lockdown-related restrictions made the execution of many leisure routines impossible, like meeting friends after work or engaging in sports routines. On the other hand, working remotely blurs the lines between working life and home life, thereby carrying the risk of work intensification (Kelliher & Anderson, 2010) and devaluation of leisure (Hilbrecht et al., 2013). In accordance with boundary theory (Ashforth et al., 2000; Nippert-Eng, 1996), employees might be more successful in creating boundaries between work and leisure through leisure crafting, thereby revitalizing the crucial role of leisure for recovery. We, therefore, posit a negative relationship between daily leisure crafting and emotional exhaustion:

*Hypothesis 2:* Daily leisure crafting is negatively related to emotional exhaustion.
Moderating effects of leisure crafting

In addition to a direct (main) effect of leisure crafting on emotional exhaustion, the JD-R model also suggests that looking at the potential interactions of demands and resources (i.e., leisure crafting) is crucial to understanding their relationships. Building on this, leisure crafting might moderate the effects of demands on emotional exhaustion, that is, the relationship between demands and emotional exhaustion should become weaker when leisure crafting increases. Seeking and completing challenging goals during leisure creates feelings of self-efficacy, competence, and mastery (all posing central factors of psychological resilience; cf. Schwarzer & Warner, 2013), which is helpful when dealing with high job demands by changing their perceptions in terms of challenge or threat (Webster et al., 2011).

In a similar way, leisure crafting should reduce the demanding character of obligations at home (e.g., with regard to food preparation), as it alters the perspective on certain activities by seeing them more as an opportunity to challenge oneself (e.g., trying to improve personal cooking skills; Webster et al., 2011). Consequently, meeting the requirements of the task will be less effortful (Kurzban et al., 2013). Hence, we state that:

*Hypothesis 3:* The relationship between daily job demands, (a) as well as daily home demands (b) and emotional exhaustion is moderated by daily leisure crafting. That is, the relationship between demands and emotional exhaustion is weaker on days where leisure crafting is high (vs. low).

Proactive personality and leisure crafting

Previous research identified some environmental factors that are predictive of engagement in leisure crafting. For instance, Petrou and Bakker (2016) found that employees with low levels of autonomy at work tend to engage in leisure crafting to compensate unfulfilled needs at work. However, so far, no studies have tested personality factors as antecedents of leisure crafting. Bakker et al. (2012) found that proactive personality is one such trait-factor that predicts job crafting (a proactive behavior aiming to alter job demands
LEISURE CRAFTING & TELEWORK

and job resources). Proactive personality describes the tendency to identify opportunities for change and to act on them until they bring about the desired change (Crant, 1995). The COVID-19 pandemic created an unforeseeable situation that forced employees to transition to telework accompanied by many changes in work and home routines. We suggest that individuals with high levels of proactive personality should be inclined to shape these changes to their favor by engaging in leisure crafting. Hence, we posit:

_Hypothesis 4_: Proactive personality is positively related to leisure crafting.

**Emotional exhaustion and job performance**

Furthermore, drastic changes with regard to work routines (e.g., switching from in-office work to remote work with little to no preparation) also carry the risk for decreased job performance (Carter et al., 2013). Amongst other factors, emotional exhaustion might be an important variable that accounts for negative effects on job performance (Wright & Cropanzano, 1998). According to the conservation of resources theory (Hobfoll, 2001), individuals might be less willing to invest personal resources to meet work-related requirements when feeling emotionally drained (Demerouti et al., 2015). Hence, we posit that on days with high levels of emotional exhaustion, employees will show impaired job performance:

_Hypothesis 5_: Daily emotional exhaustion is negatively related to job performance.

**Methods**

**Sample**

We recruited 214 participants via social media and via various mailing lists in Germany. Participants had to be employed for at least 19.5 hours per week (part time or full time employment) and work from home due to German COVID-19 pandemic restrictions. All data were collected in the period between April 13th 2020 and April 23rd 2020. During that time, the federal government announced a lockdown that required many employees to work remotely from home, and that imposed severe restrictions on leisure routines (in particular
social contacts). We excluded all participants who i) failed to answer at least one daily survey after filling out the baseline questionnaire and ii) indicated that their working hours were under the pre-defined threshold of 19.5 hours per week in the baseline questionnaire (cf. Nägel & Sonnentag, 2013). As they did not answer at least one of the daily surveys after filling out the baseline questionnaire, 36 participants (17%) were excluded. Hence, our final sample consisted of 178 participants answering 964 daily surveys (response rate was 77%, mean number of surveys per person = 5.33, SD = 2.07). Of these, 704 were answered on a work day as indicated by the participants and, therefore, included in our analyses (we only included work days since we were interested in intra-individual variations over days).

Participants had various occupational backgrounds and worked in different areas with a mean working time of 35.81 hours per week (SD = 8.62). Mean age was 35.34 years (SD = 9.57), and 72% were female. Of 178 participants, 54 reported having at least one person living in their household that they had to care for (e.g., children).

We examined whether participants in the final sample differed from participants who were excluded from the analyses as they did not provide valid data with regard to our inclusion criteria, and found no evidence for selective attrition (no significant differences between participants in the final sample compared to dropouts with respect to age, daily working time, amount of telework, number of dependents [e.g., children], mean job and home demands, mean leisure crafting, proactive personality and gender; all ps > .17).

Procedure

After individuals gave informed consent to participate by checking a box, they filled in a survey including items on proactive personality, as well as various sociodemographic information. To capture information about daily job and home demands, COVID-19-related rumination, leisure crafting, emotional exhaustion, and job performance, participants completed questions every evening of the seven consecutive days, starting from the day after filling in the baseline survey. At the beginning of the survey, participants indicated whether it
LEISURE CRAFTING & TELEWORK

was a working day or not. All day-level items were included in every daily survey except from the items that captured work-related constructs (i.e., job demands and job performance), which were only presented on working days. Data collection was conducted via SoSci Survey (Leiner, 2016). Participants had to start the survey by using a day-specific link, which they received via e-mail every evening. The study was conducted in line with Helsinki Declaration principles. We used only standard procedures and measurement instruments and we did not seek ethical approval for this study.

**Measures**

*Day-level job demands*

We assessed job demands with a short scale consisting of nine items (sample items: “How often did your work require you to work quickly today?”, “How often did you have to make decisions without having sufficient information today?”, “How often did you have to interrupt the task you were working on because something important cropped up today?”) adapted from the German job analysis instrument (ISTA), developed by Semmer et al. (1999). Participants responded on 5-point rating scales ranging from 0 (very rarely/never) to 4 (very often).

*Day-level home demands*

We assessed home demands with a short scale consisting of six items (sample items: “How often did you have to do many things in a hurry during leisure today?”, “How often did you get frustrated about things concerning your private life today?”) adapted by Peeters et al. (2005). Participants responded on 5-point rating scales ranging from 0 (very rarely/never) to 4 (very often).

*Day-level COVID-19-related rumination*

We assessed COVID-19-related rumination with four adapted items of Garnefski and Krayaif’s (2006) rumination scale (sample items: “Today, I often thought about how I feel about the outbreak of the coronavirus.”, ”Today, I dwelled upon the feelings that the outbreak
LEISURE CRAFTING & TELEWORK

of the coronavirus has evoked in me.”). Items were answered on a 6-point Likert scale ranging from 1 (strongly disagree) to 6 (strongly agree).

*Day-level leisure crafting*

We assessed daily leisure crafting using a scale by Petrou and Bakker (2016). The scale consists of nine items that were adapted to the day-level and to the lockdown situation (sample items: “Today, I tried to find challenging activities outside of work.”, “Today, I looked for new experiences through leisure activities to keep myself mentally stimulated.”) on a 7-point rating scale ranging from 0 (strongly disagree) to 6 (strongly agree).

*Day-level emotional exhaustion*

We assessed emotional exhaustion with the four negatively phrased items of the emotional exhaustion subscale of the Oldenburg Burnout Inventory (OLBI; sample items: “Today, I often felt worn out and weary.”, “Today, I often felt emotionally drained.”; Demerouti et al., 2010), which were adapted to refer to the day-level and translated into German. Items were answered on a 4-point Likert scale ranging from 1 (strongly disagree) to 4 (strongly agree).

*Day-level job performance*

We assessed job performance with three items by Griffin et al. (2007) that were translated into German and adapted to the day-level (sample items: “Today, I carried out the core parts of my job well.”, “I ensured my tasks were completed properly today.”). Items were answered on a 4-point Likert scale ranging from 1 (strongly disagree) to 4 (strongly agree).

*Proactive personality*

We assessed proactive personality with six items (sample items: “I actively tackle problems.”, “I immediately take the initiative when others do not.”) by Frese et al. (1997). Participants responded on 5-point rating scales ranging from 1 (does not apply to me) to 5 (completely applies to me).

*Analytic approach*
LEISURE CRAFTING & TELEWORK

Given the multilevel nature of our data, we conducted multilevel path analyses with daily observations (level 1) nested in persons (level 2). Analyses were carried out using Mplus 8 (Muthén & Muthén, 1998-2017). Job demands, home demands, COVID-19-related rumination, leisure crafting, emotional exhaustion, and job performance were entered on the day-level (level 1). Proactive personality was entered on the person-level (level 2). All level-1 predictor variables (that were only used as exogenous variables) were person-mean centered whereas proactive personality (as a level-2 variable) was grand-mean centered (cf. Preacher et al., 2010, 2016). Since person-mean centering day-level variables removes between-person variation, the relationships can be interpreted more accurately within-person (Enders & Tofighi, 2007; Enders, 2013). We used random intercepts and fixed slopes as the model fit of an alternative random coefficient model was not superior to the more parsimonious random intercept model ($\chi^2$-difference = 99.030, $p = .480$; cf. Baird & Maxwell, 2016).

In the first step, we included the intra-individual relationships between day-specific job demands (level 1), home demands (level 1), COVID-19-related rumination (level 1), leisure crafting (level 1), and daily emotional exhaustion (Hypotheses 1a–c, and 2) to our model. Furthermore, the model includes proactive personality as a between-person predictor for leisure crafting (Hypothesis 4). We also added a path for the relationship between level-1 emotional exhaustion and job performance to test the predictive power of daily emotional exhaustion for daily job performance (Hypothesis 5).

In the second step, we added the interaction effects of job demands x leisure crafting and home demands x leisure crafting at the intra-individual level to test Hypotheses 3a and 3b.

Results

Means, standard deviations, internal consistencies (alpha), and zero-order correlations of the main study variables are shown in Table 1.
Before testing the hypotheses, we performed a set of multilevel confirmatory factor analyses (MCFA) using Mplus 8 (Muthén & Muthén, 1998–2017) to evaluate whether a seven-factor structure with (i) job demands (level 1), (ii) home demands (level 1), (iii) COVID-19-related rumination (level 1), (iv) leisure crafting (level 1), (v) emotional exhaustion (level 1), (vi) job performance (level 1), and (vii) proactive personality (level 2) fits the data. The proposed seven-factor solution yielded very good fit indices ($\chi^2 = 1152.179$, $df = 543, p < .001$, root mean square error of approximation (RMSEA) = .035, scale correction factor (SCF) = 1.2653, comparative fit index (CFI) = .952, and standardized root mean square residual (SRMR)$_{within/between} = .056/.051$). Moreover, the seven factor solution fitted the data significantly better than any other factor solution we tested, for example, a five-factor model including (i) daily stressors (aggregated job demands, home demands, and COVID-19-related rumination), (ii) daily leisure crafting, (iii) daily emotional exhaustion, (iv) daily job performance, and (v) proactive personality ($\chi^2$ - difference = 1527.727, $p < .001$; RMSEA = .064, SCF = 1.2641, CFI = .839, SRMR$_{within/between} = .130/.051$), or a two-factor model including a general factor for (i) all level-1 variables and (ii) level-2 proactive personality ($\chi^2$ - difference = 7152.462, $p < .001$; RMSEA = .110, SCF = 1.2577, CFI = .512, SRMR$_{within/between} = .157/.051$).

Next, we inspected intra class correlations (ICCs) of all study variables. Intra-individual variability (1-ICC) accounted for 55% of variance in emotional exhaustion. Similar results were found for job demands (45%), home demands (48%) and COVID-19-related rumination (49%). A somewhat higher intra-individual variability was found for job performance (64%). In sum, a substantial amount of variance of the study variables was accounted for on the intra-individual level (level 1) confirming the importance of multilevel path modeling to analyze the proposed relationships.

**Hypotheses tests**
LEISURE CRAFTING & TELEWORK

First, with regard to the proposed positive relationships between level-1 job demands (Hypothesis 1a), level-1 home demands (Hypothesis 1b) and emotional exhaustion, both hypotheses received empirical support by our data as experiencing high day-specific job demands (unstandardized estimate = 0.11, $S.E. = 0.04$, $p = .004$), as well as day-specific home demands (unstandardized estimate = 0.46, $S.E. = 0.03$, $p < .001$) was associated with higher levels of day-specific emotional exhaustion. In addition, level-1 COVID-19-related rumination showed a positive relationship with emotional exhaustion, unstandardized estimate = 0.10, $S.E. = 0.03$, $p = .003$ – thereby supporting Hypothesis 1c. Moreover, we found support for Hypothesis 2, which posited that leisure crafting (level 1) is negatively related to day-specific emotional exhaustion, unstandardized estimate = -0.11, $S.E. = 0.04$, $p = .004$.

Second, we predicted and found, for the first-time, empirical evidence for Hypothesis 4 stating that proactive personality (level 2) is predictive of leisure crafting (unstandardized estimate = 0.25, $S.E. = 0.08$, $p = .002$).

Third, we expected emotional exhaustion (level 1) to be negatively related to daily job performance (Hypothesis 5). This hypothesis is also supported by our data, unstandardized estimate = -0.12, $S.E. = 0.03$, $p < .001$.

In an additional model, we examined the interaction effects of job demands x leisure crafting and home demands x leisure crafting by adding the respective paths to the model at the intra-individual level. The interaction terms of job demands x leisure crafting (unstandardized estimate = -0.001, $S.E. = 0.079$, $p = .989$) and home demands x leisure crafting (unstandardized estimate = -0.003, $S.E. = 0.074$, $p = .971$) revealed no significant relationships. Hence, we reject Hypotheses 3a and 3b. All results for the outcome variable emotional exhaustion are displayed in Table 2.

Discussion
LEISURE CRAFTING & TELEWORK

The present study focused on crucial factors related to teleworkers’ emotional exhaustion during the COVID-19 pandemic. As a great number of employees worldwide started working from home after the outbreak of the virus, many were confronted with a completely new work environment and conflicting daily demands at work and home. Applying a within-person perspective, we found first-time support for positive relationships between daily job demands and home demands with emotional exhaustion during telework. We also found support for day-level relationships between emotional exhaustion and job performance. Previous studies have mainly focused on between-person relationships of demands and well-being during telework (e.g., Konradt et al., 2003), as well as between-person relationships between emotional exhaustion and job performance (Wright & Cropanzano, 1998). In addition, daily COVID-19-related rumination was identified as a background stressor with a positive relationship to emotional exhaustion. Furthermore, due to the disruptions arising from the lockdown regulations, many leisure activities that promote work-related recovery could not be carried out (e.g., social contacts). We proposed that daily leisure crafting is an effective behavior that can help decrease emotional exhaustion by (re-)creating meaningful leisure experiences. This hypothesis was supported by our data as we found a negative direct relationship between leisure crafting and emotional exhaustion although we did not find support for moderating effects of leisure crafting on the relationships of demands with emotional exhaustion. Finally, we identified proactive personality as a trait-level factor that is positively related to leisure crafting.

Theoretical implications

First, our study offers evidence for the positive relationships between job demands, home demands (and COVID-19-related rumination), and emotional exhaustion during the COVID-19 pandemic. Consequently, our results support the assumption that the combination of stressors stemming from multiple life domains are critical for employee well-being. Interestingly, they point to the special importance of daily home demands for the experience
LEISURE CRAFTING & TELEWORK

of emotional exhaustion, as they were the strongest predictor for emotional exhaustion in terms of explained variance. This might have been partly due to the fact that many resources were not available during the lockdown (e.g., many childcare providers were not in service) and employees’ home demands therefore increased to exceptionally high levels (Venkatesh, 2020). Despite the special role of home demands during the lockdown, our results are in line with previous findings (e.g., Konradt et al., 2003) that show similar relationships outside the context of the pandemic. This provides further evidence for the positive relationships between teleworkers’ job demands, home demands and emotional exhaustion in general.

Second, we found evidence for a negative relationship between emotional exhaustion and job performance. Hence, emotional exhaustion caused by high demands does not only jeopardize individual well-being, but also economic outcomes.

Third, daily leisure crafting during the COVID-19 pandemic is a promoter of subjective well-being, as we found good support for our assumption that daily leisure crafting is negatively related to teleworkers’ emotional exhaustion. That is, employees who adapted to the lockdown through seeking novel ways to challenge themselves during leisure reported lower levels of emotional exhaustion. Thereby, it also creates the pre-conditions for sustained job performance. Our results advocate that leisure crafting mainly unfolds its effects directly (in terms of a main effect) as we found no support for interactive relationships between job demands and leisure crafting or between home demands and leisure crafting on emotional exhaustion. In line with this finding, previous research found that demand-resources moderator hypotheses generally find less support compared to main-effects hypotheses of resources (Bakker & Demerouti, 2007, see Häusser et al., 2010 for a discussion). With regard to the direct relationship between leisure crafting and emotional exhaustion, there is evidence that our findings are not only limited to a pandemic situation but that they can be generalized to contexts outside the pandemic as previous research highlights the general importance of boundary management after work for well-being (e.g., Sonnentag & Fritz, 2007). We have no
information on leisure activities prior to as compared to during the lockdown. It would be interesting to see how these variables changed in reaction to the outbreak of COVID-19 and the lockdown regulations. Due to the pandemic situation, not all activities were equally possible (for example, theaters and gyms were closed) which might have restricted possible leisure activities. However, individuals were still able to engage in leisure crafting from home, and engage in more solitary activities. In fact, the conceptual strength of leisure crafting is not about the impact of specific leisure activities, but about the active and adaptive role of an individual in shaping his or her leisure activities. This ability might become even more important in a highly dynamic situation as the COVID-19 pandemic. Hence, our results contribute to theory building with regard to the concept of leisure crafting and highlight its global relevance for Occupational Health Psychology.

Fourth, we found first-time support for the assumption that individuals scoring high on proactive personality are more likely to engage in leisure crafting (daily behavior). As previous research reports a positive link between proactive personality and subjective well-being (for an overview, see Alarcon et al., 2009), amongst other variables, leisure crafting could explain how proactive personality can be related to well-being: Individuals with a proactive personality might be better in adapting to a new (and unfavorable) situation by actively implementing elements that support health and well-being. Therefore, these individuals identify new challenges that offer meaningful experiences and satisfy basic psychological needs during leisure (Petrou et al., 2017). However, of course, proactive personality is not only expected to be a crucial factor for health and well-being during unusual times like the pandemic situation, but also in times of normal functioning.

Limitations and future research directions

Despite the methodological strengths of our study (e.g., time-series data consisting of multiple measures over days for each participant) it also has some limitations. First of all, our analyses are based on self-report data, thereby containing the risk of common method bias.
LEISURE CRAFTING & TELEWORK

(MacKenzie & Podsakoff, 2012). In addition, given our study design, the possibility for causal interpretations and the strict control of third variables as alternative explanations for the relationships is somewhat limited (cf. Abdel Hadi et al., 2020; Robins, 1997). However, as this study aimed to collect data immediately after employees transitioned to telework due to the lockdown regulations, our study design was most suitable to account for the highly dynamic development as it allowed us to collect data with only a small time delay.

Moreover, we focused on within-person variations in well-being that cannot be affected by between-person variables such as gender (Ohly et al., 2010). However, work-family conflict might be particularly problematic for female employees as gender asymmetries might appear on a between-person level regarding job demands and home demands during remote work (Kibbe, 2020; Sullivan & Lewis, 2001). For example, women might be expected to take more responsibilities with regard to childcare when working from home, and, therefore be especially at risk of being negatively affected by increased home demands (Hartig et al., 2007). We conducted exploratory analyses to see whether gender moderates the relationships between job demands (level 1), home demands (level 1), leisure crafting (level 1), and emotional exhaustion but found no evidence for cross-level interactions. However, our study sample mainly consisted of female employees and hence might not offer the statistical power needed to detect such cross-level interactions (cf. Mathieu et al., 2012). Consequently, future research may follow-up on potential gender effects.

With regard to the positive relationship between leisure crafting and well-being, our study implies interesting future directions for research on employee well-being. For example, future studies might focus on tests of potential mechanisms that account for the underlying pathways of this relationship. In this vein, bringing together research on meaning-making through crafting behaviors with research on recovery during leisure-time might be a fruitful avenue as previous research has highlighted the impact of leisure crafting on basic
LEISURE CRAFTING & TELEWORK

psychological needs satisfaction (Petrou et al., 2017), which, in turn, has been found to be related to employee health and well-being (e.g., de Bloom et al., 2020; Deci & Ryan, 2008).

**Practical implications**

Our study carries practical implications with respect to the COVID-19 pandemic but also general implications for the design of healthy telework. Carefully considering the accumulation of stressors from different life domains (i.e., job demands, home demands) but also background stressors is an important factor for telework. Considering ways to attenuate their effects on well-being is crucial for organizations when transitioning from in-office work to telework. Organizations could help to deal with demands during telework by offering resources that match the special needs of this type of work. For instance, previous research found evidence for the moderating effect of social support on the relationship between demands and well-being (Häusser et al., 2010). As job support provided by co-workers and supervisors may fall short while working remotely from home (Bentley et al., 2016), organizations must find new ways to channel social support.

In addition, organizations might offer structural resources that help to decrease home demands. Offering resources that support childcare (Wang & Walumbwa, 2007) might be one way to decrease home demands for working parents.

Finally, organizations can tap into the power of employees’ leisure crafting to (re-)create boundaries during remote work. Therefore, as an organization, it might be helpful to emphasize the importance of meaningful leisure. For instance, organizations can build structures that support leisure crafting, for example, by offering financial support for various leisure activities with challenging potentials.

**Conclusion**

Taken together, the current study indicates that job demands and home demands are positively related to emotional exhaustion during telework, which, in turn, is negatively related to job performance. Leisure crafting can serve as an effective strategy to counteract
emotional exhaustion. Although it might seem contradictory at first glance to promote employees’ challenge-seeking outside work as an organization, in the long run, our study suggests that organizations can profit from it as it keeps employees healthy and performing well.
References


LEISURE CRAFTING & TELEWORK


LEISURE CRAFTING & TELEWORK


Frese, M., Fay, D., Hilburger, T., Leng, K., & Tag, A. (1997). The concept of personal initiative: Operationalization, reliability and validity in two German samples. *Journal*
LEISURE CRAFTING & TELEWORK

of Occupational and Organizational Psychology, 70, 139–161.
http://dx.doi.org/10.1111/j.2044-8325.1997.tb00639.x

development of a short 18-item version (CERQ-short). Personality and Individual

Positive behavior in uncertain and interdependent contexts. Academy of Management

http://dx.doi.org/10.1111/j.1464-0597.2006.00252.x

(pamDC) model: Linking work characteristics, leisure time physical activity, and
http://dx.doi.org/10.1080/02678373.2017.1303759

of recent research on the job demand-control(-support) model and psychological well-
being. Work & Stress, 24, 1–35. http://dx.doi.org/10.1080/02678371003683747

Hilbrecht, M., Shaw, S. M., Johnson, L. C., & Andrey, J. (2013). Remixing work, family and
leisure: teleworkers' experiences of everyday life. New Technology, Work and

process: Advancing conservation of resources theory. Applied Psychology, 50, 337–
421. http://dx.doi.org/10.1111/1464-0597.00062

Huffziger, S., Ebner-Priemer, U., Zamoscik, V., Reinhard, I., Kirsch, P., & Kuehner, C.
(2013). Effects of mood and rumination on cortisol levels in daily life: An ambulatory
LEISURE CRAFTING & TELEWORK

assessment study in remitted depressed patients and healthy controls. 

*Psychoneuroendocrinology, 38*, 2258–2267.  
http://dx.doi.org/10.1016/j.psyneuen.2013.04.014


http://dx.doi.org/10.1177/0018726709349199

http://dx.doi.org/10.1001/jamasurg.2020.3917

http://dx.doi.org/10.1080/02699930500473533


https://dx.doi.org/10.1017/S0140525X12003196

Leiner, D. J. (2016). SoSci Survey (Version 2.6.00) [Computer software]. Available at  
http://www.soscisurvey.de
LEISURE CRAFTING & TELEWORK


LEISURE CRAFTING & TELEWORK


LEISURE CRAFTING & TELEWORK

*research into practice* (pp. 139–150). Springer Science and Business Media.

https://doi.org/10.1007/978-1-4614-4939-3_10


http://dx.doi.org/10.1037/1076-8998.6.3.196


http://dx.doi.org/10.1037/1076-8998.12.3.204


http://dx.doi.org/10.1348/096317905X52616


http://dx.doi.org/10.1016/j.ijinfomgt.2020.102197

LEISURE CRAFTING & TELEWORK

Work and Organizational Psychology, 22, 218–234.
http://dx.doi.org/10.1080/1359432X.2011.648375


Acknowledgements

This research was supported by a grant from the German Research Foundation (HA 6455/3-1 and HA6455/3-2) awarded to JAH. The authors report no conflict of interest. Data will be made available from the first author upon request.
Figure 1
Our Conceptual Model

Note. Rumination = Ruminative thinking about COVID-19.
### Table 1

**Means, Standard Deviations, and Zero-order Correlations**

<table>
<thead>
<tr>
<th>Variable</th>
<th>$M_{within}$</th>
<th>$SD_{within}$</th>
<th>$M_{between}$</th>
<th>$SD_{between}$</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Day-Level</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Job Demands</td>
<td>2.10</td>
<td>0.75</td>
<td>2.11</td>
<td>0.62</td>
<td>(.87)</td>
<td>.40***</td>
<td>.21**</td>
<td>-0.01</td>
<td>.40***</td>
<td>-0.16*</td>
<td>.08*</td>
</tr>
<tr>
<td>2. Home Demands</td>
<td>2.08</td>
<td>0.79</td>
<td>2.13</td>
<td>0.65</td>
<td>.48***</td>
<td>(.82)</td>
<td>.46***</td>
<td>-0.02</td>
<td>.68***</td>
<td>-0.27**</td>
<td>.06</td>
</tr>
<tr>
<td>3. COVID-19 Ruminition</td>
<td>1.73</td>
<td>0.74</td>
<td>1.80</td>
<td>0.63</td>
<td>.22***</td>
<td>.33***</td>
<td>(.91)</td>
<td>.09</td>
<td>.38***</td>
<td>-0.23**</td>
<td>-0.10**</td>
</tr>
<tr>
<td>4. Leisure Crafting</td>
<td>2.12</td>
<td>0.71</td>
<td>2.15</td>
<td>0.58</td>
<td>-0.06</td>
<td>-.07*</td>
<td>.09**</td>
<td>(.91)</td>
<td>-.11</td>
<td>-.02</td>
<td>.08**</td>
</tr>
<tr>
<td>5. Emotional Exhaustion</td>
<td>2.04</td>
<td>0.79</td>
<td>2.07</td>
<td>0.62</td>
<td>.43***</td>
<td>.60***</td>
<td>.31***</td>
<td>-.14***</td>
<td>(.85)</td>
<td>-.35***</td>
<td>.01</td>
</tr>
<tr>
<td>6. Job Performance</td>
<td>3.16</td>
<td>0.61</td>
<td>3.14</td>
<td>0.45</td>
<td>-.13**</td>
<td>-.23***</td>
<td>-.15***</td>
<td>.04</td>
<td>-.25***</td>
<td>(.87)</td>
<td>.19***</td>
</tr>
<tr>
<td><strong>Person-Level</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Proactive Personality</td>
<td>–</td>
<td>–</td>
<td>3.74</td>
<td>1.08</td>
<td>.07*</td>
<td>.05</td>
<td>-.08*</td>
<td>.07*</td>
<td>.01</td>
<td>.13**</td>
<td>(.94)</td>
</tr>
</tbody>
</table>

*Note.* Within = estimates displayed on Level-1 (within-person), between = estimates displayed on Level-2 (between-person). Correlations below the diagonal are within-person correlations ($N_{Level-1} = 704$). Correlations above the diagonal are between-person correlations ($N_{Level-2} = 178$). Internal consistency reliabilities (alpha) are displayed on the diagonal. * = $p < .05$, ** = $p < .01$, *** = $p < .001$. 
### Table 2

*Unstandardized Coefficients from Multilevel Path Analyses Predicting Daily Emotional Exhaustion*

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th></th>
<th>Model 2</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Estimate (S.E.)</td>
<td>95 % CI</td>
<td>Estimate (S.E.)</td>
<td>95 % CI</td>
</tr>
<tr>
<td>Day-Level Predictors</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Job Demands</td>
<td>0.11 (0.04)**</td>
<td>[0.04, 0.19]</td>
<td>0.11 (0.04)**</td>
<td>[0.04, 0.19]</td>
</tr>
<tr>
<td>Home Demands</td>
<td>0.46 (0.03)***</td>
<td>[0.39, 0.53]</td>
<td>0.46 (0.03)***</td>
<td>[0.39, 0.53]</td>
</tr>
<tr>
<td>COVID-19 Rumination</td>
<td>0.10 (0.03)**</td>
<td>[0.04, 0.17]</td>
<td>0.10 (0.04)**</td>
<td>[0.04, 0.17]</td>
</tr>
<tr>
<td>Leisure Crafting</td>
<td>-0.11 (0.04)**</td>
<td>[-0.19, -0.04]</td>
<td>-0.11 (0.04)**</td>
<td>[-0.19, -0.03]</td>
</tr>
<tr>
<td>Job Demands x Leisure Crafting</td>
<td>-</td>
<td>-</td>
<td>-0.00 (0.08)</td>
<td>[-0.16, 0.15]</td>
</tr>
<tr>
<td>Home Demands x Leisure Crafting</td>
<td>-</td>
<td>-</td>
<td>-0.00 (0.07)</td>
<td>[-0.15, 0.14]</td>
</tr>
<tr>
<td>Level-1 Residual Variance</td>
<td>0.44 (0.01)</td>
<td>[0.41, 0.46]</td>
<td>0.44 (0.02)</td>
<td>[0.41, 0.46]</td>
</tr>
</tbody>
</table>

*Note.* $N_{Level-1} = 704$, $N_{Level-2} = 178$. All Level-1 predictors were centered at persons’ means. Unstandardized coefficients are reported. CI = Confidence Interval. Two-tailed analyses; * = $p < .05$, ** = $p < .01$, *** = $p < .001$. 