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RESEARCH ARTICLE

Organisational inhibition and promotion of flexible working in digitalised work environments

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Abstract

Work-related use of digital information and communication technology (ICT) is not restricted to specific working sites and times. For employees, this can involve opportunities for flexible working, that is, having control over when and where to work. Applying an organisational comparative perspective, we examined whether adherence to the ideal worker norm inhibits and adherence to family-friendliness promotes flexible working as a consequence of ICT use. Linked employer–employee survey data from large German work organisations revealed that employees worked more flexibly in time and place due to work-related ICT use when supervisory work-life support was common. Mixed evidence is provided for the prevalence of ideal worker norm expectations. We conclude that work-life support in the organisation is a required complementary practice of flexible working for employees, promoting its dissemination.

KEYWORDS

digitalisation, employment relations, flexible working, ICT, job quality, organisations, technology, work–life support

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INTRODUCTION

Flexible working is one of the most prominent promises within the current debate about the digitalisation of work (Kossek, 2016). It is predominantly understood as having control over when and where to work (Chung & Van der Lippe, 2020, p. 365). Digital information and communication technologies (ICTs) and the extension of digital infrastructures allow interactions with supervisors and colleagues as well as access to work-related data and information from anywhere at any time. Consequently, many work tasks are no longer restricted to specific work sites and working times (see Dingel & Neiman, 2020 on the share of jobs that can be performed remotely). This means increased opportunities for flexible working, which has been described as a beneficial resource for workers, for instance, to help in managing demands both in work and personal life (Abendroth & Den Dulk, 2011).

Previous research, however, highlights that ICT are enablers but not drivers of flexible working, which suggest that flexible working is not per se a consequence of ICT although it can facilitate flexible working in time and place (Bailey & Kurland, 2002; Messenger and Gschwind, 2016; Wajcman et al., 2010). More specifically, previous research recognises the role of social factors that contribute to the design, technological content, diffusion and adoption of technologies (Wajcman et al., 2010, p. 259). Indeed, existing studies point to different practices of ICT use (Thulin & Vilhelmson, 2021) as well as to specific sociodemographics (Chung & Van der Lippe, 2020; Vilhelmson & Thulin, 2016). We aim to contribute to existing research by combining the theoretical concepts of the ideal worker norm (Acker, 1990; Kelly et al., 2010; Williams et al., 2013) and of family-friendly organisations (Thompson et al., 1999) to ask whether organisational adherence to the ideal worker norm inhibits while adherence to family-friendliness promotes technologically enabled flexible working.

The theoretical concept of the ideal worker norm describes expectations of high work devotion which have for a long time complemented traditional male breadwinner families but which increasingly conflict with the lives of dual-earner families being on the rise (Acker 1990; Kelly et al., 2010; Van der Lippe & Lippényi, 2018; Williams et al., 2013). Research on the flexibility stigma suggests that flexible working is perceived as a deviation from the ideal worker norm being stigmatised with lower productivity and commitment, which, in turn, inhibits its use due to expected career costs for employees (Leslie et al., 2012; Lott & Abendroth, 2020; Munsch, 2016). The theoretical concept of family-friendly organisations shares these dimensions of the ideal worker norm referring to the absence of high organisational time demands and negative career consequences of utilising flexible working, which, in turn, might involve opportunities for employees to work more flexibly in time and place due to ICT use.

However, flexible working has not only been described as a resource to employees but also as a new work demand making it a costly work practice regardless of ideal worker expectations and involving negative career consequences of flexible working. For example, it requires employees to manage more flexible boundaries between work and personal life and to collaborate with colleagues and supervisors in a physical distance risking work-life balance (Chung & Van der Lippe, 2020), well-being (Felstead & Henseke, 2017) or team performance (Van der Lippe & Lippényi, 2020). Work-life support by supervisors or the management, the additional dimension of family-friendly organisations (Thompson et al., 1999), might here function as a complementary practice (Brynjolfsson & Milgrom, 2013; Milgrom & Roberts, 1995) reducing the potential additional costs of flexible working for employees. Work-life support is commonly understood as a resource that not only improves work-life integration but which

also buffers the negative implications of work demands (Abendroth & Den Dulk, 2011; Kossek et al., 2011). It signals trust and understanding, offering employees latitude to deal with more flexible work-life boundaries (Thulin & Vilhelmson, 2021; Van der Lippe & Lippényi, 2018) or the willingness to make extra efforts to reconnect employees to the organisation who work more flexibly in time and place (Golden, 2006; Nardi & Whittaker, 2002). It is unclear, however, whether the prevalence of ideal worker norm expectations or of supervisory work-life support inhibits or promotes flexible working in organisations.

By asking to *what extent the prevalence of ideal worker norm expectations and supervisory work-life support in organisations explains whether employees work more flexibly in time and place due to work-related ICT use*, we aim to contribute to existing research in the following ways. First, we apply an organisational comparative perspective identifying and explaining variations of flexible working between employees in different organisations. For this purpose, we draw upon the third wave (2018/2019) of the unique linked employer-employee data, the LEEP-B3 survey, from large German workplaces and their employees including a new module on digitalised work (Reimann et al., 2020). In our analysis, only workers are included who use work-related digital communication and information at least to some extent, as its use is widespread among the surveyed employees (97.4%). The German context is especially of interest to investigate our research question as flexible work arrangements thus far are highly formalised and less common than in other European countries (Chung & Van der Lippe, 2020).

Second, differentiating between the prevalence of ideal worker norm expectations and work-life support is a first approach to further disentangle different dynamics of organisational inhibition and promotion of flexible working in organisations that adhere to the ideal worker norm or the norm of family-friendliness. Previous research has shown that the ideal worker norm expectations have decreased the use of more formalised flexible working practices such as working from home before the COVID-19 pandemic (Abendroth et al., 2022; Leslie et al., 2012; Lott & Abendroth, 2020; Munsch, 2016). However, little is known about whether the disruption of ideal worker norms is enough for the promotion of flexible working or whether work-life support as a complementary practice is of essential importance.

Third, previous research has mainly studied the use of more formalised flexible working practices pointing to the importance of the social contexts for its implications (for a review, see Chung & Van der Lippe, 2020). Existing studies have, however, paid less attention to informal practices that have gained importance in recent years due to the increase in work-related use of ICT (Vilhelmson & Thulin, 2016). We expect that informal practices are even more sensitive to ideal worker norm expectations and work-life support in organisations because they are not legitimised and supported by a formal agreement.

THEORY

Technologically enabled flexible working—Inhibited or promoted in organisations

Work-related ICT use enables flexible working technologically (Messenger & Gschwind, 2016; Vilhelmson & Thulin, 2016) and allows employees to reorganise and flexibly adjust working times and locations in their own interest (Bakker & Demerouti, 2007; Castells, 2000). Work coordination and collaboration with supervisors and colleagues can be performed regardless of time and place with the help of digital asynchronous communication. Digital information

required for work can similarly be accessed independent of time and place with adequate data and security infrastructures (Barnes, 2012). However, flexible working is not per se a consequence of ICT but rather also depends on other social factors which shape the implementation and use of technologies (Wajcman et al., 2010, p. 259).

In the next subsections, we develop the argument that flexible working technologically enabled by ICT can be both inhibited by organisational adherence to ideal worker norm expectations as well as promoted by available supervisory work-life support in the organisation as they either increase or decrease the involved costs of flexible working for employees. Moreover, we will explain that adherence to the ideal worker norm and the availability of supervisory work-life support are not mutually exclusive in organisations but that elements of the ideal worker norm might still be present alongside work-life support.

Ideal worker norm expectations and the inhibition of flexible working

Work organisations have a long tradition of upholding the norm of the ideal worker which stipulates that high work devotion is expected in organisations (Acker, 1990; Kelly et al., 2010; Williams et al., 2013). This ideal worker norm has been attributed to the long tradition of the male breadwinner family model as it follows traditional male breadwinner life courses. Moreover, it has been identified as a central barrier to flexible working as it delegitimises it as a form of work that is not used to adhere to the norm of high work devotion but as a source of self-determination to organise work in a way that suits the employee's personal life situation (Leslie et al., 2012; Lott & Abendroth, 2020; Munsch, 2016). Existing research on the flexibility stigma indeed shows that employees express concerns about the possible limitations of career opportunities due to the use of flexible workplace arrangements (Konrad & Yang, 2012) or report that supervisors, in general, expect physical presence (Lott & Abendroth, 2020). This suggests that when expectations of physical presence and involved flexibility stigmas are part of the norm of high work devotion, the work-related use of digital communication and information is neither a perceived legitimate resource for employees to ask for flexible working nor a taken-for-granted opportunity. In this case, it is likely that employees use digital communication and information only as technological tools within the same work site and during regular working hours because they are aware of the flexibility stigma and are concerned about negative career costs in return.

Van der Lippe and Lippényi (2018) additionally identify work organisations with strong ideal worker norms where it is expected that employees take work home at night or on the weekend. Thus, these organisations expect employees to respond to a high intensity of work. This is in line with research highlighting that in some organisations employees are expected to work long hours and withstand high stress, which is rewarded by wage premiums (Cha & Weeden, 2014; Lott & Chung, 2016). Fried (1998) here refers to overtime cultures. Expectations to respond to high work intensity have been attributed to dynamics of globalisation and market volatility being relevant to some organisations (Breen, 1997; Cha & Weeden, 2014; Wajcman, 2016). In this case, digital work communication and information can be used to serve the flexibility interests of employers working outside of regular working hours and work sites to flexibly respond to work demands (e.g., Cha & Weeden, 2014; Chung & van der Horst, 2018). Wajcman (2016) points to a phenomenon of constant connectivity where employees constantly check for incoming messages and quickly respond to them or use digitally available work information to realise high work demands at home. This form of

constant connectivity can be described as a digital form of expectations of presence in line with the ideal worker norm which not necessarily disrupts but complements or only replaces expectations of physical presence. Thus, expectations of high work intensity are likely to signal to employees that it is not a legitimate practice to take control over working time and location in their interest to flexibly and better align work and personal life. Existing research on more formalised flexible workplace arrangements, such as working from home, indeed indicates that this is often used to get more work done especially among male workers (Abendroth & Reimann, 2018; Kelliher & Anderson, 2010; Noonan & Glass, 2012; Schieman & Young, 2013). Thulin & Vilhelmson (2021) also show processes of recoupling and fixity in contemporary telework.

To conclude, the following hypothesis is formulated for employees who use work-related digital communication and information:

H1. The more pronounced ideal worker norm expectations in the organisation (expectations of presence and expectations of high work intensity), the less flexible employees are in time and place due to the work-related ICT use.

Work-life support and the promotion of flexible working

Existing research, however, notes that organisations are increasingly under pressure to not only abandon ideal worker norm expectations but also to provide work-life support to employees who struggle in integrating work and personal life. Normative pressures here refer to expectations in the organisational environment from policy-makers and the public to be more family-friendly in view of an increase in dual-earner families and challenges to reconcile work and family demands (Den Dulk et al., 2012; European Commission, 2015). This not only refers to adjusted ideal worker norm expectations but also to the provision of work-life support. Work-life support identifies support and understanding for the work-life situation of employees by supervisors and managers and is a central dimension of family-friendly organisations in addition to adjusted ideal worker norm expectations in the organisation (Kossek et al., 2011; Thompson et al., 1999).

Economic pressures additionally refer to economic benefits from the provision of work-life support (Den Dulk et al., 2012). Support provided to better combine work and personal life can help to promote the employability of employees with caring obligations and/or be a benefit in the competition for qualified personnel in view of the personnel shortage and increasing desires for better work-life balance (Davis & Kalleberg, 2006; Den Dulk, 2001; Den Dulk et al., 2012; Iseke & Pull, 2019; Kanji & Samuel, 2017; Smithson & Stokoe, 2005). This makes investments in work-life support a business case (Den Dulk, 2001), especially for organisations with employees who face challenges in balancing work and personal life and/or those who compete for qualified personnel. In this case, work-life support is less likely to be presented only to the environment (Brunsson, 1989; Den Dulk & De Ruijter, 2008) but is likely to be part of work practices where supervisors and managers show support and understanding for the private situation of their employees (Thompson et al., 1999). However, work-life support and adherence to the ideal worker norm are not necessarily mutually exclusive. One reason could be that organisations have already responded to normative and/or economic pressures by providing work-life support but the ideal worker norm is still in transition. Another reason is that organisations can experience conflict between economic pressures to react quickly and

flexibly to customer demands versus normative expectations regarding family-friendliness (Cha & Weeden, 2014). One consequence could be that work-life support is meant to facilitate work-life integration only to the degree that employees can continue to adhere to the ideal worker norm despite increased personal obligations.

We argue that flexible working depends on the availability of supervisory work-life support next to the adherence to the ideal worker norm as it reduces other costs of flexible working for employees. This is because flexible working can still be a costly work practice even if flexible working is not inhibited by ideal worker norm expectations. Previous research on flexible working indeed describes that it involves new work demands (Felstead & Henseke, 2017; Kelliher & Anderson, 2010). More specifically, flexible working requires managing more flexible boundaries between work and personal life, thus potentially blurring the boundaries between life domains and increasing the likelihood of work invading the private sphere (Clark, 2000). Similarly, Felstead and Henseke (2017, p. 195) describe that flexible working comes 'at the cost of work intensification and a greater inability to switch off'. Moreover, previous research has shown that flexible working requires employees to collaborate with colleagues and supervisors at a physical distance, thus potentially weakening interpersonal bonds (Golden, 2006; Nardi & Whittaker, 2002) and risking team performance (Van der Lippe & Lippényi, 2020).

In line with the job demands-resources model (Bakker & Demerouti, 2007) and the theory of complementarity in organisations (Brynjolfsson & Milgrom, 2013; Milgrom & Roberts, 1995), work-life support by supervisors can here function as a complementary practice to flexible working buffering the potential costs involved. This is because supervisory work-life support is likely to provide latitude to cope with family demands and/or boundary conflicts when working more flexibly in time and place (Thulin & Vilhelmson, 2021; Van der Lippe & Lippényi, 2018). It is also likely to offer understanding and empathy for personal obligations which ease constant connectivity for work (Den Dulk et al., 2016; Major et al., 2008), is likely to offer trust in the exchange relationship regardless of the location and time of work (Lott & Abendroth, 2020; Vilhelmson & Thulin, 2016) and the willingness to make extra efforts to reconnect employees who work more flexibly in time and place to sustain social integration at work (Golden, 2006; Nardi & Whittaker, 2002). To conclude, the following hypothesis is formulated for employees who use work-related digital communication and information:

H2. The more pronounced supervisory work-life support in the organisation, the more employees are flexible in time and place due to work-related ICT use.

DATA AND METHOD

The current analysis was based on the LEEP-B3 (Diewald et al., 2014; Reimann et al., 2020) data. The design of this study involved employer and employee surveys as well as a linkage to administrative data. To gain representative data on large German work organisations (organisations with more than 500 employees who are subject to social security), the sample was drawn based on administrative data provided by the research institute of the Federal Employment Agency. The employer survey rests on a disproportional random sampling strategy (stratified by industrial sector and region to account for structural differences between West and East Germany and to cover all sectors except for the military). Simple random sampling was used for the employees within the surveyed organisations. To date, three waves have been completed using computer-assisted telephone interviews (t1: 2012/2012; t2: 2014/

2015 and t3: 2018/2019). Because the module to measure digitalised work was introduced in the third wave, 5430 respondents from that wave who could be linked to organisational and administrative data were used. A marginal share of 138 respondents (2.6%) who did not use ICT at all was excluded, leading to a sample of 5292 respondents who used ICT to some extent. Another 309 cases were excluded due to missing values on the dependent variables. Of the remaining 4983 employees, 13.7% were excluded in the course of listwise deletion in the multivariate regression models due to missing values on any of the independent variables. This led to a final analysis sample of 4298 employees from 160 organisations. A mean comparison between the missing sample and the analysis sample (Table A1) suggested that there were only marginal differences in the analysed independent variables. Thus, missing values were treated as missing at random.

The dependent variable *flexible working* was measured by asking the respondents to evaluate to what degree it applies that 'due to the work-related use of digital information and communication technologies, they [I] are more flexible with regard to work time and place' (1 'does not apply at all' to 5 'applies completely'). Beforehand, digital communication was introduced as the use of e-mails, software applications or digital platforms for the communication with supervisors and/or colleagues. The use of digital information was introduced as retrieving information necessary for completing work tasks from digital platforms or from process-produced data automatically stored by computers or machines.

In line with previous research, ideal worker norm expectations were measured by *expectation of presence* and *expectation to respond to high work intensity*. *Expectation of presence* refers to the described flexibility stigma which has been attributed to the ideal worker norm and which was measured by asking the respondents whether employees were considered to be less committed to their job when they were not present at their on-site workplace during regular working hours, as measured on a 5-point scale ('not important at all' to 'very important'). This was in line with measurements of the flexibility stigma, which has been attributed to the norm of the ideal worker and the norm of presence in particular (Chung & van der Horst, 2018; Konrad & Yang, 2012; Leslie et al., 2012; Lott & Abendroth, 2020; Munsch, 2016; Thompson et al., 1999). The variable was then dichotomised as 0 'low' (1–3) versus 1 'high' (4–5). The *expectation to respond to high work intensity* was measured by asking how important (a) overtime work and (b) the ability to withstand stress are within the work organisation to identify expectations of high work devotion regardless of the persistence of a flexibility stigma and the involved expectations of presence. Each item was measured on a 5-point Likert scale ranging from 'not important at all' to 'very important'. The two items were averaged and dichotomised as 0 'low work intensity' versus 1 'high work intensity'. This measurement was in line with the study by Van der Lippe and Lippényi (2018) to measure strong ideal worker norms. *Work-life supportiveness* was captured by asking whether the supervisor supports employees' integration of work and personal obligations measured on a 5-point Likert scale ranging from 'does not apply at all' to 'applies completely' and dichotomised as 0 'low' (1–3) versus 1 'high' (4–5) levels of support. This measurement was similar to those used in previous research (Thompson et al., 1999; Van der Lippe & Lippényi, 2018). We included the percentage of responses to the 'high' (=1 on the dichotomous variables) categories on the organisational level. The higher the value on the organisational variables, the more employees perceive this norm to be important, indicating the degree of institutionalisation of the ideal worker norm or the work-life supportiveness in the work organisation. Individual responses are additionally considered in the analyses.

TABLE 1 Correlations of main independent variables.

	(1)	(2)	(3)	(4)	(5)
(1) Individual level: Expectations of presence high (0 = low)					
(2) Individual level: Expectations to respond to high work intensity high (0 = low)	0.067***				
(3) Individual level: Work-life support high (0 = low)	-0.120***	-0.066***			
(4) Organisational level: % Expectations of presence high	0.231***	0.100***	-0.092***		
(5) Organisational level: % Expectations to respond to high work intensity high	0.081***	0.302***	-0.108***	0.335***	
(6) Organisational level: % Work-life support high	-0.066***	-0.114***	0.259***	-0.331***	-0.439***

Note: $N = 4298$.

*** $p < 0.001$.

Pairwise correlations between all individual perceptions and average perceptions in the workplace (Table 1) indicated that the measurements on both the individual and the workplace level are statistically significantly correlated but measure distinct concepts and do not cause problems of multicollinearity in the analyses ($r = 0.069$ – 0.439). Expectations of presence are positively correlated with expectations of high work intensity, and negatively correlated with the prevalence of work-life support.

Controls

We controlled for the degree to which the organisation faces competition (evaluated by the employer on a scale from 0 ‘no competition’ to 10 ‘very high competition’) to account for differences in our main independent variables (e.g., higher work intensity due to a competitive market situation). The analyses further included several occupational and private characteristics as controls. All analyses included *age*, *agreed-upon working hours*, *supervising responsibilities* (1 = yes), *tenure* (in years), *occupation*, *sector* (*classification of industries* (2008) *based on EU standards*) and *gender* (1 = female). *Occupation* was measured using the International Standard Classification of Occupations (ISCO). As the sample did not cover the military sector, the ISCO-0 group ‘armed forces occupations’ did not exist; and due to a very low number of cases, the ISCO-6 group (Skilled agricultural, forestry and fishery workers) was included in the ISCO-7 (craft and related trade workers) group. The *Sector* was differentiated into four categories (production, utilities; commerce, tourism, transport; financial and professional services and social and public services, health). To consider the private life situation, whether there were *children in the household* (1 = yes) was included. Finally, we controlled for the number of respondents in each work organisation.

Mean values, standard deviations, minimum and maximum values of all study variables are displayed in Table 2. All multivariate analyses were conducted using organisational random-

TABLE 2 Mean, standard deviation, minimum and maximum of all study variables.

	Mean	Standard deviation	Minimum	Maximum
Flexible working	3.12	1.49	1	5
<i>Organisational level</i>				
% Expectations of presence high	0.22	0.10	0	0.67
% Expectations to respond to high work intensity high	0.66	0.13	0.28	0.95
% Work-life support high	0.77	0.11	0.38	1
<i>Individual level</i>				
Expectation of presence high (0 = low)	0.22	0.42	0	1
Expectation to respond to high work intensity high (0 = low)	0.67	0.47	0	1
Work-life support high (0 = low)	0.78	0.41	0	1
<i>Controls</i>				
Female (0 = male)	0.48	0.50	0	1
Age (in years)	45.1	9.76	20	58
Children in household (0 = no)	0.57	0.50	0	1
<i>Occupation, based on ISCO</i>				
Managers	0.03	0.18	0	1
Professionals	0.29	0.45	0	1
Technicians and associate professionals	0.34	0.47	0	1
Clerical support workers	0.15	0.36	0	1
Service and sales workers	0.04	0.21	0	1
Craft and related trades workers, skilled agricultural workers	0.08	0.26	0	1
Plant and machine operators, and assemblers	0.05	0.21	0	1
Elementary occupations	0.02	0.15	0	1
<i>Sector</i>				
Production, utilities	0.29	0.45	0	1
Commerce, tourism, transport	0.06	0.24	0	1
Financial and professional services	0.46	0.50	0	1
Social and public services, health	0.19	0.39	0	1
Agreed-upon working hours	35.6	6.37	0	45
Supervising responsibilities (0 = no)	0.33	0.47	0	1
Tenure (in years)	10.1	8.54	0.50	39.9
Competition	6.36	1.78	0	10
Number of respondents	42.6	13.6	9	73

Note: N = 4298.

Abbreviation: ISCO, International Standard Classification of Occupation.

effects ordered logistic models with robust standard errors. Ordered logistic regression models were selected due to the ordinal scaled dependent variables. Moreover, having multiple employees in the same workplace violates the independence assumption in conventional ordinary least squares estimators (Rabe-Hesketh & Skrondal, 2012). That multilevel modelling was reasonable was additionally supported by the analysis of the share of overall variance due to variation on the organisational level (ρ). All metric variables were mean centred based on the analysis sample. To investigate hypotheses 1–3, analyses were conducted in different steps (models M1–M2, see Table 3). The first model (M1) included the organisational indicators of a pronounced ideal worker norm (expectations of presence, expectations to respond to high work intensity) including all individual and organisational controls. Then, the work-life support was added to the prediction (M2).

Intercorrelations of the main independent variables were analysed (see Table 1), and the models were re-estimated by adding all main independent variables separately and stepwise to the predictions to consider possible bias due to multicollinearity. These additional analyses did not change the conclusions from the presented models. Several additional analyses were conducted to assure the robustness of the results. Alternative model specifications were tested, such as multilevel linear regressions instead of ordered logistic regressions (see Table A2); the findings were very similar.

FINDINGS

Figure 1 illustrates the results of the multilevel random-effects ordered logistic regression analyses for the relationship between flexible working and pronounced ideal worker norm expectations (M1) and supervisory work-life support (M2), respectively (detailed models can be found in Table 3). Predicted probabilities were used for further interpretation of the coefficients (see Figure 2 and Table 4). In line with *hypothesis 1*, we found a statistically significant negative association of flexible working with expectations of presence ($b = -1.363$; 95% confidence interval [CI]: $-2.682, -0.044$), indicating that the more pronounced expectations of presence in the organisation, the less flexibly employees worked in time and place due to the work-related ICT use. The probability of low flexible working (dependent variable takes the value 1, see Table 4) was 16.7% when expectations of presence were at the minimum of the distribution and given that the rest of the variables were at their mean values. In contrast, the probability was 29.9% when the expectations of presence were at the maximum. At the other end of the association, the probability of very high flexible working (=dependent variable takes the value 5 see in Table 4) was 27.7% if expectations of presence were at the minimum of the distribution, and 15.2% if they were at the maximum.

The tendency of this association also held true for high expectations to respond to high work intensity in the organisation; however, the coefficient was not statistically significant. Thus, the results partly supported hypothesis 1 on the organisational inhibition of flexible working by ideal worker expectations in the organisation.

When it came to the hypothesised relationship between the prevalence of work-life support and flexible working, the prediction in Model 2 indeed revealed a significant positive coefficient ($b = 1.329$, 95% CI: 0.196, 2.462). Thus, the more common work-life support was in the organisation, the more flexibly employees worked in time and place due to work-related ICT use. As can be seen in Table 4, the probability of high flexible working (dependent variable takes the value 5) was 28.2% when work-life support was at the maximum of the distribution

TABLE 3 Flexible working due to the use of digital communication and information.

	M1		M2	
	Coefficient	95% Confidence interval	Coefficient	95% Confidence interval
<i>Organisational level</i>				
% Expectations of presence high	-1.363*	[-2.682, -0.044]	-1.190	[-2.457, 0.077]
% Expectations to respond to high work intensity high	-0.512	[-1.568, 0.544]	-0.219	[-1.309, 0.871]
% Work-life support high			1.329*	[0.196, 2.462]
<i>Individual level</i>				
Expectation of presence high (reference = low)	-0.148	[-0.297, 0.001]	-0.115	[-0.267, 0.037]
Expectation to respond to high work intensity high (reference = low)	0.166**	[0.046, 0.287]	0.175**	[0.054, 0.295]
Work-life support high (reference = low)			0.309***	[0.176, 0.442]
<i>Controls</i>				
Female	-0.074	[-0.227, 0.080]	-0.066	[-0.219, 0.088]
Age	-0.003	[-0.010, 0.004]	-0.002	[-0.009, 0.005]
Children in household (reference = no)	0.191**	[0.076, 0.306]	0.189**	[0.073, 0.305]
<i>Occupation based on ISCO (reference professionals)</i>				
Managers	0.066	[-0.335, 0.468]	0.061	[-0.346, 0.468]
Technicians and associate professionals	-0.358***	[-0.517, -0.198]	-0.363***	[-0.524, -0.202]
Clerical support workers	-0.199	[-0.422, 0.025]	-0.221	[-0.445, 0.003]
Service and sales workers	-0.634***	[-1.006, -0.262]	-0.625***	[-0.992, -0.256]
Craft and related trades workers, Skilled agricultural workers	-0.953***	[-1.223, -0.682]	-0.939***	[-1.209, -0.669]
Plant and machine operators, and assemblers	-1.433***	[-1.770, -1.095]	-1.397***	[-1.727, -1.067]
Elementary occupations	-1.018***	[-1.568, -0.467]	-1.011***	[-1.574, -0.448]
<i>Sector (reference = production, utilities)</i>				
Commerce, tourism, transport	-0.132	[-0.436, 0.173]	-0.090	[-0.381, 0.200]
Financial and professional services	-0.073	[-0.354, 0.208]	-0.129	[-0.391, 0.133]
Social and public services, health	-0.661***	[-0.954, -0.368]	-0.610***	[-0.894, -0.325]
Agreed-upon working hours	0.015**	[0.004, 0.025]	0.015**	[0.005, 0.0260]
Supervising responsibilities	0.422***	[0.300, 0.545]	0.427***	[0.304, 0.550]
Tenure	-0.011*	[-0.019, -0.002]	-0.011*	[-0.020, -0.003]

(Continues)

TABLE 3 (Continued)

	M1	95% Confidence interval	M2	95% Confidence interval
	Coefficient		Coefficient	
Competition	0.076*	[0.013, 0.138]	0.073*	[0.014, 0.132]
Number of respondents	−0.002	[−0.011, 0.007]	−0.005	[−0.015, 0.004]
Variance component attributable to organisation (sigma2_u)	0.323***	[0.217, 0.480]	0.299***	[0.200, 0.447]
Share of overall variance due to variation on the organisational level (rho)	0.089		0.083	

Note: $N = 4298$, ρ in the empty model (M_0) = 0.138.
Abbreviation: ISCO, International Standard Classification of Occupation.
* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

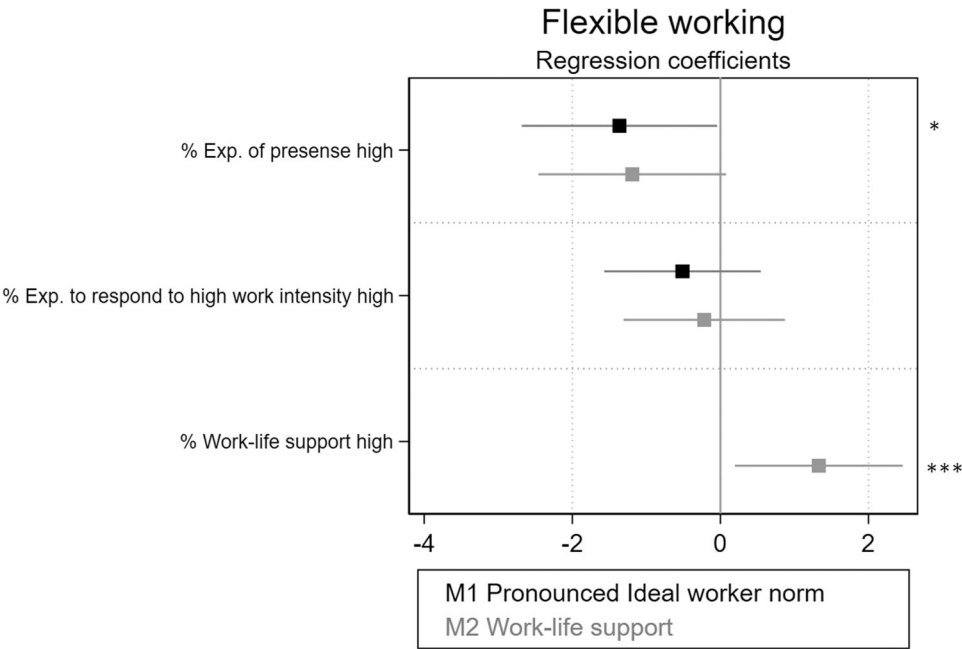


FIGURE 1 Flexible working regression coefficients. Exp., expectations.

and given that the rest of the variables were at their mean values. In contrast, the probability was 15.3% when the work-life support was at the minimum. At the other end of the association, the probability of very low flexible working (=dependent variable takes the value 1) was 29.8% if work-life support was at the minimum of the distribution, and 16.2% if it was at the maximum. Thus, the results supported *hypothesis 2* on the organisational promotion of flexible working by the prevalence of supervisory work-life support. Moreover, once work-life support was accounted for, the coefficient for expectations of presence was no longer statistically

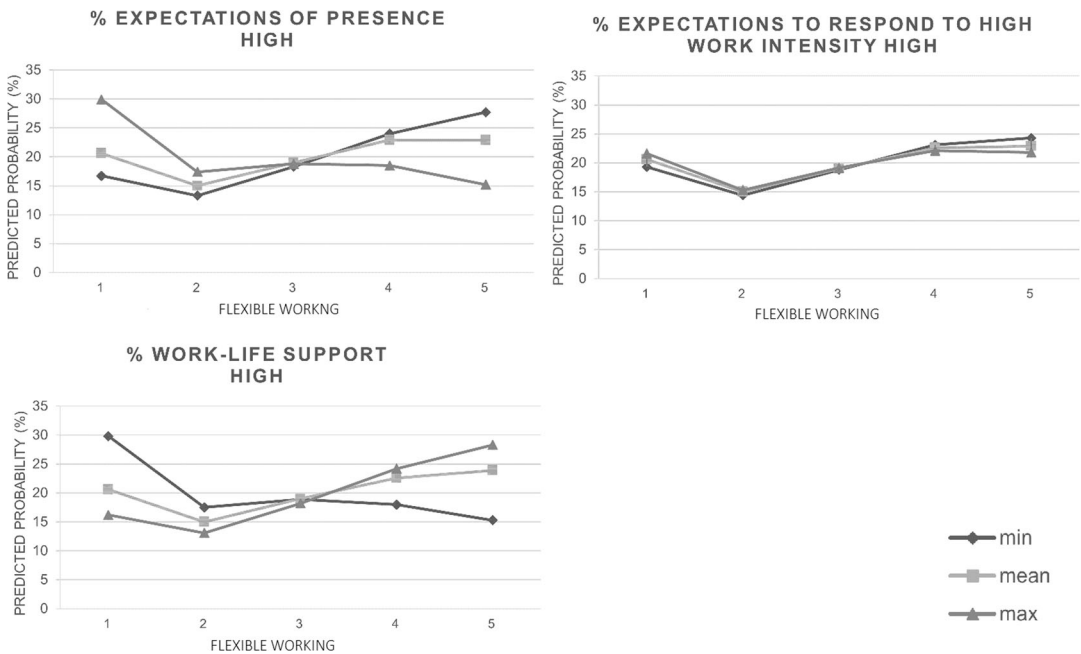


FIGURE 2 Predicted probabilities: Flexible working. max, maximum; min, minimum.

significant, indicating that not expectations of presence but the lack of work-life supportiveness (also see correlations in Table 1) inhibited employees work more flexibly due to the work-related ICT use.

Finally, on the individual level, employees who received work-life support were more likely to work very flexibly (probability of 24.0%, see Table 4) as compared to employees who did not receive support (probability of 19.1%, see Table 4), though the explained differences were smaller than those predicted by the organisational variable. While we did not find an additional effect for the expectation of presence on the individual level, we found a statistically significant and positive association for the expectation to respond to high work intensity. Employees who perceived those expectations to be high were slightly more likely to work flexibly due to the use of digital communication and information (probability of 23.9%) as compared to employees who perceived only low expectations (probability of 21%).

DISCUSSION

Work-related use of digital communication and information is not restricted to specific working sites and times. To the advantage of employees, this can involve opportunities for flexible working (Kossek, 2016). Applying an organisational comparative perspective based on the theoretical concepts of the ideal worker norm (Acker, 1990; Kelly et al., 2010; Williams et al., 2013) and family-friendly organisations (Kossek et al., 2011; Thompson et al., 1999), we examined whether organisational adherence to the ideal worker norm inhibits and adherence to family-friendliness promotes technologically enabled flexible working. We derive four main conclusions from our research based on linked employer-employee data of employees working in large German work organisations.

TABLE 4 Predicted probabilities: Flexible working.

Flexible working									
1	2		3		4		5		
	Predicted probabilities	SE	Predicted probabilities	SE	Predicted probabilities	SE	Predicted probabilities	SE	
<i>Organisational level</i>									
% Expectations of presence high									
Minimum	0.167	0.022	0.133	0.012	0.183	0.009	0.240	0.011	0.277
Mean	0.206	0.009	0.150	0.007	0.190	0.007	0.226	0.008	0.229
Maximum	0.299	0.055	0.175	0.012	0.188	0.009	0.185	0.024	0.152
% Expectations to respond to high work intensity high									
Minimum	0.193	0.032	0.144	0.014	0.188	0.008	0.231	0.014	0.243
Mean	0.206	0.009	0.150	0.007	0.190	0.007	0.226	0.008	0.229
Maximum	0.216	0.028	0.153	0.012	0.191	0.007	0.221	0.014	0.218
% Work-life support high									
Minimum	0.298	0.044	0.175	0.009	0.189	0.008	0.186	0.019	0.153
Mean	0.206	0.009	0.150	0.007	0.190	0.007	0.226	0.008	0.239
Maximum	0.162	0.020	0.131	0.012	0.182	0.009	0.242	0.010	0.283
<i>Individual level</i>									
Expectations of presence									
0 (low)	0.202	0.009	0.148	0.007	0.190	0.007	0.227	0.008	0.233
1 (high)	0.220	0.014	0.155	0.007	0.191	0.007	0.220	0.009	0.214

TABLE 4 (Continued)

Flexible working									
1	2		3		4		5		
	Predicted probabilities	SE	Predicted probabilities	SE	Predicted probabilities	SE	Predicted probabilities	SE	
Expectations to respond to high work intensity									
0 (low)	0.225	0.012	0.156	0.007	0.192	0.007	0.218	0.008	0.013
1 (high)	0.197	0.010	0.146	0.007	0.189	0.007	0.229	0.008	0.012
Work-life support									
0 (low)	0.246	0.013	0.163	0.008	0.192	0.006	0.209	0.008	0.013
1 (high)	0.196	0.010	0.145	0.007	0.189	0.007	0.230	0.008	0.013

Note: $N = 4298$, predicted probabilities for main independent variables, marginal effects estimated based on random-effects multilevel ordered logistic regression model including all studied variables; independent variables set to mean.

First, work flexibility in time and place enabled by work-related ICT use varies considerably between employees working in different organisations. This finding confirms the argument that technologically enabled flexible working is either inhibited or promoted in organisations and is in line with an emerging research field pointing to the prevalence of different organisational inequality regimes (Tomaskovic-Devey & Avent-Holt, 2019). Moreover, it aligns with the argument that ICT enables flexible working but that its implementation and use are dependent on social factors (Wajcman et al., 2010).

Second, the results allow for the conclusion that a high prevalence of supervisory work-life support promotes flexible working, whereas a low prevalence inhibits its dissemination. This is in line with the argument that work-life support is a complementary practice to flexible working (Brynjolfsson & Milgrom, 2013; Milgrom & Roberts, 1995). In line with the resources and demands approach (Abendroth & Den Dulk, 2011; Bakker & Demerouti, 2007) work-life support seems to buffer potential costs involved in flexible working increasing its use. Similarly, previous research has identified that flexible working is not only a resource but also involves new work demands for employees (Chung & Van der Lippe, 2020). For example, it requires employees to manage more flexible boundaries between work and personal life or to collaborate with colleagues and supervisors at a physical distance. Our research implies that supervisory work-life support helps to deal with these new demands without putting work-life balance, well-being or social integration at risk increasing the likelihood of employees' flexible working.

Third, the research results provide only mixed evidence for the argument that a high prevalence of ideal worker expectations inhibits and a low prevalence promotes employees' flexible working. The negative association between the prevalence of expectations of presence and flexible working vanished once the prevalence of supervisory work-life supportiveness was included in the analysis. With expectations of presence, we referred to the flexibility stigma identified in previous research for more formalised flexible workplace arrangements such as telework (Leslie et al., 2012; Munsch, 2016). Our results suggest that a low prevalence of expectations of physical presence and an involved flexibility stigma are not enough for the promotion of employees' flexible working.

With expectations of high work intensity, we identified ideals of high work devotion being a key characteristic of the ideal worker norm which might persist even if physical presence is no longer perceived and stigmatised as a deviation from this norm. The results, however, only reveal that individual experiences of expectations to respond to high work intensity and not the prevalence in the organisation were of importance. Moreover, these individual experiences seemed to involve a higher likelihood of working more flexibly in time and place due to the work-related ICT use. One possible explanation might be gift-exchange dynamics where workers receive the gift of flexibility in return for their responsiveness to high work intensity in direct supervisory-employee exchange dynamics (Chung, 2017). Thus, high work devotion might go along with some control over time and place among employees who use ICT at work. Distinguishing different dimensions of ideal worker norm expectations as well as their prevalence in the organisation and in the direct supervisory-employee exchange relations thus seems to be a fruitful path for future research. With the prevalence of ideal worker norm expectations and supervisory work-life support, we identified how institutionalised the ideal worker norm and the norm of family-friendliness are in organisations.

Fourth, we conclude that in organisations where work-life support is more common, the ideal worker norm is less prevalent as indicated by their negative correlation. However, this does not mean that the adherence to the ideal worker norm and the prevalence of work-life

support in organisations are mutually exclusive. Rather, elements of the ideal worker norm seem still be present alongside work-life support. Possible explanations are that organisations are still in transition or exposed to contradictory pressures in their environment they need to respond to.

Our research has some limitations. The cross-sectional nature of the data means that only conclusions on associations but not on causal connections can be made. Thus, we cannot rule out reversed causality. More flexible working due to the work-related use of digital communication and information may also shape how workers perceive expectations of presence, high work intensity and work-life support in the organisation. This is, however, less plausible for more institutionalised norms measured based on the aggregated information at the organisational level. Moreover, the variation in the sample of employees for each organisation has the consequence that for some firms the aggregated indicators at the organisational level might be more reliable than others even though a random sample was drawn in each organisation. Furthermore, this research was able to draw conclusions on large work organisations only. It can be argued that the described mechanisms and associations are likely to also exist among small- and medium-sized organisations. Future research is needed to investigate these assumptions. Finally, no direct measurements of the mechanisms behind ideal worker expectations and supervisory work-life support were available. Here, future research is required to provide a closer look at the dynamics in organisations. The presented findings suggest that future research which applies a multidimensional conceptualisation and investigation of adherence and deviation from the ideal worker norm and the norm of family-friendliness is necessary to further disentangle mechanisms behind the inhibition and promotion of flexible working. Moreover, variation between employees of different status groups was not part of the scope of this research. Nevertheless, the results point to differences between employees with different occupational status, suggesting that a more detailed investigation in the future is required. No evidence is provided for gender differences. This contrasts existing research on the flexibility stigma being gendered (Lott & Abendroth, 2020), which might more likely hold for formalised flexible working arrangements such as working from home and not for flexibility potentials of ICT use and more informal negotiation processes in direct supervisory-employee exchange relations.

The data for this paper were collected in 2019, and thus before the onset of the COVID-19 pandemic. The COVID-19 health and social crisis might have further contributed to reducing the norm of presence addressed in this research. The COVID-19 pandemic has resulted in workers being obliged to work completely from home for weeks and/or months to reduce the spread of the virus. As a consequence, many employers and employees had experiences with flexible working, which could have diminished flexibility stigmas and contributed to a much larger disruption of the norm of the ideal worker found in the pre-COVID analysis. This research provides important evidence that this does not necessarily imply that organisations no longer inhibit flexible working as work-life supportiveness of the organisation seems to be a required complementary practice. Our findings also hold important implications for workplaces, managers and CEOs, indicating that it is not enough to enable flexible working technologically. Workplaces, managers or CEOs need to identify and reduce additional costs of flexible working being perceived by employees. This can, for example, involve concerns about negative career consequences but also concerns of social isolation or blurred boundaries between life domains. Our research suggests that work-life support by supervisors or the management can here function as a complementary practice reducing the likelihood of such costs. This means that companies could additionally encourage the use of flexible working by

training supervisors to support employees in their daily work-life issues and to establish a more work-life-supportive organisational climate.

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CONFLICT OF INTEREST STATEMENT

The authors declare no conflicts of interest.

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APPENDIX
See Tables A1 and A2.

TABLE A1 Comparison missing versus analysis sample.

	Missing sample (<i>N</i> = 464–623 ^{A1})				Analysis sample (<i>N</i> = 4298)			
	Mean	SD	Min	Max	Mean	SD	Min	Max
% Expectations of presence in the workplace high	0.24	0.10	0	0.67	0.22	0.10	0	0.67
% Expectations to respond to high work intensity high	0.68	0.13	0.28	0.95	0.66	0.13	0.28	0.95
% Work-life support high	0.74	0.12	0.38	1	0.77	0.11	0.38	1
Expectations of presence high (reference = low)	0.27	0.45	0	1	0.22	0.42	0	1
Expectations to respond to high work intensity high (reference = low)	0.73	0.45	0	1	0.67	0.47	0	1
Work-life support high (reference = low)	0.72	0.45	0	1	0.78	0.41	0	1
Female	0.55	0.50	0	1	0.48	0.50	0	1
Age	44.2	9.78	19	58	45.1	9.76	20	58
Children in household (1 = yes)	0.61	0.49	0	1	0.57	0.50	0	1
Occupation, based on ISCO								
Managers	0.02	0.13	0	1	0.03	0.18	0	1
Professionals	0.23	0.42	0	1	0.29	0.45	0	1
Technicians and associate professionals	0.36	0.48	0	1	0.34	0.47	0	1
Clerical support workers	0.13	0.33	0	1	0.15	0.36	0	1
Service and sales workers	0.05	0.23	0	1	0.04	0.21	0	1
Craft and related trades workers, skilled agricultural workers	0.08	0.26	0	1	0.08	0.26	0	1

TABLE A1 (Continued)

	Missing sample (<i>N</i> = 464–623 ^a)				Analysis sample (<i>N</i> = 4298)				<i>t</i> Test
	Mean	SD	Min	Max	Mean	SD	Min	Max	
Plant and machine operators, and assemblers	0.09	0.29	0	1	0.05	0.21	0	1	0.04*
Elementary occupations	0.04	0.20	0	1	0.02	0.15	0	1	0.02*
Sector									−0.03
Production, utilities	0.26	0.44	0	1	0.29	0.45	0	1	0.03*
Commerce, tourism, transport	0.09	0.28	0	1	0.06	0.24	0	1	−0.121*
Financial and professional services	0.34	0.47	0	1	0.46	0.50	0	1	0.124
Social and public services, health	0.31	0.46	0	1	0.19	0.39	0	1	−0.138
Agreed-upon working hours	34.5	7.51	9.6	45	35.6	6.37	0	45	−1.10*
Supervising responsibilities	0.31	0.46	0	1	0.33	0.47	0	1	−0.02
Tenure, years	9.10	8.25	0.50	36.6	10.1	8.54	0.50	39.9	−0.95*
Competition	6.23	1.76	0	10	6.36	1.78	0	10	−0.08
Number of respondents	42.3	13.4	9	73	42.6	13.6	9	73	−0.52

Abbreviation: ISCO, International Standard Classification of Occupation.

^a*N* varies due to different shares of missing values.**p* < 0.05.

TABLE A2 Linear regression: Flexible working due to the use of digital communication and information.

	M3-B
	Coefficient (robust standard error)
<i>Organisational level</i>	
% Expectations of presence high	−0.760 (0.254)
% Expectations to respond to high work intensity high	−0.172 (0.406)
% Work-life support high	0.962* (0.420)
<i>Individual level</i>	
Expectations of presence high (reference = low)	−0.094 (0.057)
Expectations to respond to high work intensity high (reference = low)	0.140** (0.046)
Work-life support high (reference = low)	0.239*** (0.052)
<i>Controls</i>	
Female	−0.071 (0.056)
Age	−0.001 (0.003)
Children in household (reference = no)	0.149** (0.045)
<i>Occupation based on ISCO (reference professionals)</i>	
Managers	0.026 (0.145)
Technicians and associate professionals	−0.288*** (0.061)
Clerical support workers	−0.195 (0.085)
Service and sales workers	−0.510*** (0.128)
Craft and related trades workers, Skilled agricultural workers	−0.758*** (0.107)
Plant and machine operators, and assemblers	−1.105*** (0.126)
Elementary occupations	−0.777*** (0.193)
<i>Sector (reference = production, utilities)</i>	
Commerce, tourism, transport	−0.046 (0.108)
Financial and professional services	−0.113 (0.099)
Social and public services, health	−0.470*** (0.106)
Agreed-upon working hours	0.011** (0.004)
Supervising responsibilities	0.320*** (0.048)
Tenure	−0.008* (0.002)
Competition	0.055* (0.022)
Number of respondents	−0.004 (0.003)
Constant	2.929 (0.233)
Variance component attributable to organisation (sigma2_u)	0.299*** (0.061)
Share of overall variance due to a variation on the organisational level (rho)	0.054

Note: $N = 4294$.

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