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Digital Boundary Control and Family Relationship Quality

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Abstract

The expansion of smartphones, workplace messaging platforms, email, remote access systems, and flexible working arrangements has made the boundary between employment and family life increasingly permeable. Digital connectivity can provide useful flexibility, but it can also allow work demands to enter family time through after-hours messages, expectations of responsiveness, task-related notifications, and continuing cognitive engagement with work. The consequences of such connectivity are unlikely to depend solely on the amount of technology use. Boundary theory suggests that an important consideration is whether individuals possess meaningful control over when and how work crosses into the family domain. Research on work–nonwork boundary management has shown that low perceived boundary control is associated with less favorable work–family outcomes, while studies of workplace telepressure and information and communication technology use demonstrate that perceived availability demands can interfere with recovery and work–life balance.

The present study develops an integrated framework connecting digital boundary control, after-hours information and communication technology demands, work–family conflict, and family relationship quality. The simulation produced a positive independent association between digital boundary control and family relationship quality (standardized β = .300) and a strong negative association between work–family conflict and relationship quality (β = −.561). Once work–family conflict and boundary control were considered, the direct contribution of after-hours ICT demands became comparatively small and statistically nonsignificant (β = −.058, p = .105). The complete model explained 59.6% of variance in the simulated relationship-quality outcome.

The results illustrate an important theoretical distinction between digital connectivity and uncontrolled digital permeability. Technology use may not uniformly damage family relationships. Its implications depend on whether employees can decide when to respond, whether work interruptions are congruent with personal boundary preferences, whether organizational norms respect off-job time, and whether digital work produces conflict with valued family roles. The paper concludes that sustainable digital-work policies should emphasize employee boundary control, predictable communication expectations, legitimate nonavailability, and protection of family interaction rather than relying exclusively on numerical restrictions on technology use.

Keywords: digital boundary control; family relationship quality; work–family conflict; workplace telepressure; ICT availability; after-hours communication; work–family boundaries; smartphone use; segmentation preference; digital well-being

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1. Introduction

Digital technologies have fundamentally altered the temporal and spatial organization of work. Email, smartphones, collaborative platforms, cloud-based systems, instant messaging applications, and remote-access technologies allow employees to perform occupational tasks beyond conventional workplaces and schedules. These technologies can improve flexibility and coordination, particularly for employees who need to integrate work with caregiving and household responsibilities. At the same time, they make the boundary between employment and family life increasingly permeable. A work request arriving during dinner, an urgent message while caring for a child, an evening email that creates anticipatory concern, or a notification received during a conversation with a partner can initiate a rapid movement from the family role back into the work role. Clark's work/family border theory conceptualizes employees as recurring border crossers who continuously negotiate work and family domains rather than inhabiting two completely independent spheres. Ashforth, Kreiner, and Fugate similarly emphasized that everyday role transitions vary according to the strength and permeability of boundaries surrounding different life roles.

The emergence of continuous digital connectivity makes control over these transitions increasingly important. Boundary management is not synonymous with complete separation of work and family. Some employees prefer strong segmentation and may want to minimize occupational communication during family time, whereas others prefer greater integration and may willingly move between responsibilities throughout the day. Allen, Cho, and Meier's review of work–family boundary dynamics emphasizes that integration and segmentation represent important dimensions of boundary management but that their consequences depend on multiple personal and contextual characteristics. Kossek, Ruderman, Braddy, and Hannum extended this perspective by identifying distinct boundary-management profiles involving interruption behavior, work and family identity centrality, and perceived boundary control. Their research indicated that profiles characterized by relatively low boundary control tended to be associated with poorer work and family outcomes even when employees differed in how strongly they preferred integration or segmentation.

Digital communication adds a second complication because connectivity can shift from an available resource into a perceived obligation. Barber and Santuzzi conceptualized workplace telepressure as a preoccupation with and urge to respond rapidly to work-related electronic communication. Their research connected telepressure with impaired recovery outcomes, while Barber, Conlin, and Santuzzi subsequently found that greater workplace telepressure was negatively associated with satisfaction with work–life balance and that recovery experiences, particularly psychological detachment, helped explain this relationship. Kao and colleagues further demonstrated that ICT availability demands were linked with burnout and work–family conflict through workplace telepressure. These findings suggest that the practical availability of a device is not equivalent to the psychological experience of being required to remain available.

The family consequences of digital work are especially important because interference from employment can affect more than an employee's personal well-being. Fellows, Chiu, Hill, and Hawkins synthesized 49 samples from 33 studies and found a significant negative association between work–family conflict and couple relationship quality. Their meta-analysis therefore indicates that strain crossing the work–family boundary can become relational rather than remaining an individual

occupational experience. Derks and colleagues' diary research further illustrates the complexity of digital work. Work-related smartphone use during off-job hours did not produce identical outcomes for all employees; among individuals who preferred greater integration, such use could sometimes reduce work–family conflict and support family-role performance, whereas corresponding benefits were not observed among stronger segmenters. These findings caution against simplistic assertions that all after-hours technology use is intrinsically harmful.

The present study consequently focuses on digital boundary control rather than digital exposure alone. Digital boundary control refers to the perceived ability to determine when occupational communication enters nonwork time, which messages require immediate attention, when work-related devices or applications can be disengaged, and whether employees can protect family interaction without fearing professional penalties. The paper proposes that digital boundary control supports family relationship quality partly because it limits involuntary work–family interference. A simulation-based analytical design is used because no real participant data were supplied. The resulting model does not claim empirical prevalence or causal effects; instead, it provides a transparent methodological framework suitable for later testing through dyadic surveys, daily diaries, experience-sampling studies, or longitudinal employee–partner research.

2. Objectives of the Study

2.1 To Examine the Relationship Between Digital Boundary Control and Family Relationship Quality

The first objective is to determine whether digital boundary control provides a theoretically meaningful predictor of family relationship quality. Relationship quality is conceptualized broadly to include emotional availability, communication satisfaction, perceived support, relational harmony, and the ability to participate meaningfully in family interaction.

The expected relationship is positive. Employees who can decide when work enters family time should be better positioned to allocate uninterrupted attention to partners and family members, establish predictable periods of availability, and prevent routine occupational demands from repeatedly displacing valued family interactions.

2.2 To Assess Work–Family Conflict as a Central Explanatory Mechanism

The second objective is to evaluate the role of work–family conflict in the boundary-control process. Meta-analytic evidence shows that work–family conflict is associated with a wide range of occupational, family, and general well-being outcomes. Amstad and colleagues synthesized 427 effect sizes and found consistent relationships between work–family conflict and outcomes across multiple domains.

The present model therefore examines whether family relationship quality is more strongly associated with the amount of after-hours ICT demand itself or with the extent to which these demands actually generate interference between work and family roles.

2.3 To Examine the Conditional Role of After-Hours Digital Demands

The third objective is to determine whether the consequences of after-hours ICT demands depend partly on boundary control. Rather than proposing that every evening work message produces equivalent

relational harm, the study tests an interaction between after-hours ICT demands and digital boundary control.

The theoretical expectation is that high digital demands should be less detrimental when employees possess meaningful control over whether, when, and how they respond. Conversely, high availability expectations combined with low control should create a comparatively greater risk of family interference.

3. Review of Literature

3.1 Boundary Theory, Segmentation, Integration, and Perceived Control

Clark's work/family border theory provides one of the central conceptual foundations for understanding the intersection between employment and family relationships. The theory proposes that work and family represent domains with borders that differ in flexibility, permeability, and strength. Individuals regularly cross these borders and attempt to create an arrangement that allows satisfactory participation in both domains. Digital communication changes the nature of this crossing because physical movement is no longer required. An employee can remain physically present at home while psychologically and behaviorally crossing into the work role through a single message.

Ashforth, Kreiner, and Fugate similarly conceptualized everyday role transitions as movements across boundaries that vary from strong segmentation to extensive integration. Strong segmentation can reduce role blurring, although it may make individual transitions more psychologically distinct. Integration, by contrast, facilitates frequent transitions but can increase permeability. Neither strategy should automatically be treated as universally superior.

Matthews, Barnes-Farrell, and Bulger contributed to this literature by advancing measurement of work and family boundary characteristics, including flexibility-related properties of role boundaries. Their work is relevant to digital boundary research because employees differ not only in their preference for segmentation but also in whether their work and family environments actually allow boundaries to be adjusted.

Kossek, Ruderman, Braddy, and Hannum made perceived boundary control particularly prominent. Their work–nonwork boundary-management profiles incorporated cross-role interruption behaviors, identity centrality, and perceived control. Importantly, low-control profiles tended to show less favorable work–family outcomes than high-control profiles. This finding provides a critical distinction for the present paper: two employees may receive the same number of after-hours messages yet experience them very differently if one can defer responses and the other believes immediate availability is mandatory.

Allen, Cho, and Meier's synthesis of work–family boundary dynamics further demonstrated that boundary management involves several related but nonidentical constructs, including segmentation preferences, enactment, boundary characteristics, and contextual demands. Thus, preference alone cannot determine whether an employee successfully protects family time. Organizational norms and technological expectations may prevent preferred boundaries from being enacted.

3.2 Digital Connectivity, Telepressure, and Work–Family Interference

The growing use of mobile technologies has generated substantial research on occupational communication outside formal working hours. Derks, van Mierlo, and Schmitz used a four-day diary design involving employees supplied with smartphones by their employers. Their results indicated that greater daily work-related smartphone use was associated with reduced psychological detachment and that workplace segmentation norms altered aspects of this relationship. These findings established an important mechanism through which digital availability can extend the psychological workday even after employees have physically left work.

Related research by Derks and Bakker examined smartphone use, work–home interference, and burnout through daily observations. Their findings reinforced the importance of recovery and showed that work-related smartphone use can interact with work–home processes rather than functioning solely as a neutral communication behavior.

Barber and Santuzzi introduced workplace telepressure to describe the psychological preoccupation and urge to respond quickly to electronic work communication. Their research shifted attention from technology availability to the perceived pressure surrounding responsiveness. Barber, Conlin, and Santuzzi later examined 254 participants in one study and 409 in another and found that telepressure was negatively associated with satisfaction with work–life balance, while psychological detachment was among the recovery experiences implicated in this relationship.

Van Laethem and colleagues' diary research similarly found that work-related smartphone use after working hours was negatively associated with psychological detachment. Employees experiencing greater workplace telepressure also engaged more frequently in work-related smartphone use during off-job hours. Collectively, these studies suggest that digital boundary permeability becomes especially relevant when occupational communication prevents employees from mentally disengaging.

Yang, Zhang, Shen, Liu, and Zhang directly connected work–family segmentation preferences, work-related ICT use at home, group segmentation norms, and work–family conflict. Their multilevel analysis identified work-related ICT use at home as an important mechanism connecting segmentation preferences to conflict and showed that group-level norms shape the process. This organizational dimension is central because boundary control is partly social: employees may technically possess an “off” button while lacking normative permission to use it.

Kao, Chi, Thomas, Lee, and Wang extended the model by examining ICT availability demands, workplace telepressure, burnout, and work–family conflict among full-time employees. Telepressure mediated relationships between availability demands and both burnout and work–family conflict. The implication is that relational consequences may arise not only because employees perform additional work but because digital demands create persistent anticipatory readiness for work.

3.3 Work–Family Conflict and Family Relationship Quality

Work–family conflict occurs when participation in one role interferes with effective participation in another. Amstad and colleagues' meta-analysis analyzed work interference with family and family interference with work separately and reported consistent relationships with work-related, family-related, and domain-unspecific outcomes. Such findings provide a broader theoretical basis for expecting employment-related boundary problems to influence relational life at home.

More directly, Fellows, Chiu, Hill, and Hawkins conducted a meta-analysis focused specifically on work–family conflict and couple relationship quality. Across 49 samples derived from 33 papers, work–family conflict was significantly negatively related to couple relationship quality, with an overall association of approximately (r=-.19). Although this association is not extremely large, its consistency is important because couple relationships are shaped by many influences beyond employment.

Digital communication may influence family relationships through several routes. It can displace conversation, reduce attentional presence, interrupt shared activities, create conflict over availability, extend occupational emotion into home life, or prevent employees from psychologically transitioning into family roles. Nevertheless, the relationship is not inevitably negative.

Derks and colleagues found that work-related smartphone use during off-job hours could be associated with better family-role performance among employees who preferred stronger integration, through reductions in work–family conflict. Among segmenters, the same pattern was not observed. Jostell and Hemlin likewise concluded that after-hours teleworking was not uniformly problematic and emphasized the importance of boundary management and avoiding disruptive work interruptions during nonwork behavior.

These findings collectively suggest that the key issue is not the binary presence or absence of after-hours technology. Digital work may help some employees redistribute tasks in ways that increase flexibility. Relational harm becomes more likely when connectivity is involuntary, unpredictable, poorly controlled, inconsistent with segmentation preferences, or sufficiently intrusive to generate work–family conflict.

4. Research Methodology

4.1 Research Design and Study Framework

The present paper adopts a simulation-based quantitative cross-sectional design informed by boundary theory and work–family research. Simulation was necessary because no authentic employee or family dataset was supplied. This methodological decision prevents fictional participant responses from being presented as empirical evidence.

A synthetic dataset representing 480 hypothetical partnered employees was generated. Partnered employees were used conceptually because the outcome includes relational communication, emotional availability, and family-role functioning. No demographic attributes such as age, gender, occupation, country, organization, marital duration, or number of children were fabricated.

The analytical framework proposes the following basic pathway:

[\text{Digital Boundary Control} \rightarrow \text{Work–Family Conflict} \rightarrow \text{Family Relationship Quality}]

with after-hours ICT demands treated as a contextual digital demand and the interaction between ICT demands and boundary control used to represent conditional boundary protection.

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Table 1: Proposed Operationalization of Principal Constructs

Construct	Conceptual Definition	Illustrative Measurement	Analytical Role
Digital Boundary Control	Perceived ability to determine whether and when occupational communication crosses into family time	1–5 composite assessing response discretion, ability to disconnect, control over notification exposure, and confidence in postponing nonurgent work	Primary predictor
After-Hours ICT Demands	Perceived frequency and intensity of work-related digital availability expectations outside scheduled working time	1–5 composite covering email, messaging, smartphone, and remote-platform demands	Digital demand
Work–Family Conflict	Degree to which occupational demands interfere with participation in family responsibilities and interaction	1–5 work-interference-with-family composite	Explanatory variable
Segmentation Preference	Degree to which the individual prefers work and family roles to remain separate	1–5 preference composite	Individual boundary orientation

Note: Construct selection was informed by established boundary-management, ICT-use, telepressure, and work–family research. The quantitative observations reported below are synthetic.

4.2 Synthetic Data Generation and Model Specification

All variables were bounded between 1 and 5 to represent composite Likert-style measures. Digital boundary control was generated with both moderate and relatively high values represented in the synthetic sample. After-hours ICT demands were generated separately so that high digital demands could occur under either low or high boundary control.

Work–family conflict was generated as a function of after-hours ICT demands, digital boundary control, segmentation preference, an interaction between boundary control and ICT demands, and random variation. Higher ICT demands increased simulated conflict, whereas stronger boundary control reduced it.

Family relationship quality was then generated as a function of work–family conflict, digital boundary control, after-hours ICT demands, and a boundary-control interaction.

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The outcome model can be represented as:

[FRQ_i = \beta_0+ \beta_1 DBC_i+ \beta_2 ICT_i+ \beta_3 WFC_i+ \beta_4 SP_i+ \beta_5(DBC_i\times ICT_i)+ \varepsilon_i]

where (FRQ) represents family relationship quality, (DBC) digital boundary control, (ICT) after-hours digital demands, (WFC) work–family conflict, (SP) segmentation preference, and (\varepsilon) unexplained synthetic variation.

The structural coefficients used to generate the data were selected to produce theoretically coherent rather than empirically estimated relationships. They should therefore not be interpreted as population effect sizes.

4.3 Statistical Procedures and Research Ethics

Descriptive statistics were first calculated for digital boundary control, after-hours ICT demands, work–family conflict, and family relationship quality. Variables were standardized before multiple linear regression so that predictor coefficients could be compared on a common metric.

The regression tested the independent contributions of boundary control, ICT demands, work–family conflict, segmentation preference, and the interaction between digital boundary control and ICT demands. Model performance was summarized using (R^2).

For graphical analysis, digital boundary control was divided into four equal-frequency categories: low, lower-middle, upper-middle, and high control. Mean family relationship quality and corresponding 95% confidence intervals were then calculated for each synthetic group.

No institutional ethics approval or informed consent was required because the study did not involve real individuals. A genuine empirical implementation would require informed consent, confidentiality safeguards, appropriate institutional ethical approval, and particular caution where employee data might reveal work or family vulnerabilities. Partner or dyadic data would require independent consent procedures for each participating family member.

5. Analysis

5.1 Descriptive Pattern of Digital Boundaries and Family Outcomes

The synthetic sample produced a mean digital boundary-control score of 3.11 with a standard deviation of 0.85. Mean after-hours ICT demand was 2.95 (SD = 0.86), while mean work–family conflict was 2.63 (SD = 0.77). Family relationship quality averaged 3.56 (SD = 0.74).

These descriptive statistics have no population interpretation because they arise from the simulation. Their purpose is to provide a plausible distribution through which the proposed theoretical relationships can be examined.

The overall pattern suggests that relationship quality should not be modeled solely from digital exposure. Individuals represented in the dataset could experience relatively high after-hours connectivity while retaining stronger relationship quality when digital boundary control remained high and work–family conflict remained comparatively low.

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5.2 Multivariable Prediction of Family Relationship Quality

Table 2: Simulated Standardized Regression Predicting Family Relationship Quality

Predictor	Standardized β	p-value	Direction	Interpretation
Digital Boundary Control	0.300	< .001	Positive	Stronger control is independently associated with better family relationship quality
After-Hours ICT Demands	−0.058	.105	Negative	Small direct association after conflict and boundary variables are considered
Work–Family Conflict	−0.561	< .001	Negative	Strongest predictor; interference is associated with substantially poorer relationship quality
Segmentation Preference	−0.004	.889	Near zero	Preference alone contributes little after actual boundary conditions are modeled
Boundary Control × ICT Demands	0.062	.049	Positive	Small buffering pattern under greater boundary control
Model (R^2)	0.596	—	—	Model explains 59.6% of simulated variance

Note: N = 480 synthetic observations. Results are methodological simulation outputs rather than empirical employee findings.

The most substantial coefficient in the model was work–family conflict, β = −.561. This result illustrates the paper's central argument: digital connectivity may become relationally consequential primarily when it interferes with family participation. The size of this simulated coefficient is also conceptually consistent with the broader literature showing negative relationships between work–family conflict and family-related outcomes.

Digital boundary control remained independently positive at β = .300, even after work–family conflict and ICT demands were included. This pattern suggests that control may possess relational value beyond simply reducing the quantity of interference. Predictable boundaries can support communication, emotional presence, planning, and a shared sense that family time is legitimately protected.

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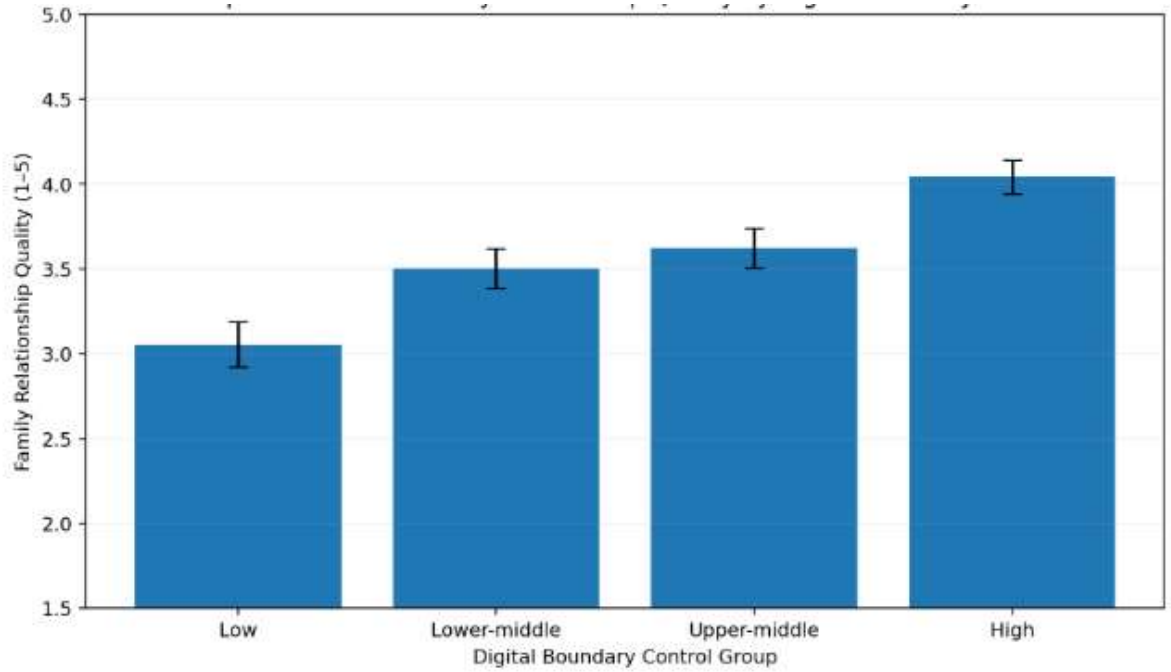
5.3 Relationship Quality Across Levels of Digital Boundary Control

Graph 1: Simulated Family Relationship Quality by Digital Boundary Control



Source/Note: Author-generated synthetic dataset, N = 480. Error bars represent approximate 95% confidence intervals. No real employee or family responses are represented.

The quartile comparison presents a clear gradient. Mean family relationship quality was approximately 3.05 among the low-boundary-control group, 3.50 among the lower-middle group, 3.62 among the upper-middle group, and 4.04 among those with the highest simulated boundary control.

The progression should not be interpreted as evidence that raising a boundary-control score by a particular amount will causally improve real family relationships. Rather, it demonstrates the theoretical expectation that digital boundaries become more sustainable when employees possess greater discretion over work-to-family transitions.

A particularly important point is that high boundary control does not necessarily require complete digital separation. An employee could intentionally respond to selected work demands during family time and still possess high control if the behavior is voluntary, predictable, and compatible with family expectations. Conversely, relatively few work messages could produce substantial conflict when each message is perceived as mandatory and unpredictable.

Key Finding: Within the simulation, family relationship quality increases consistently across digital boundary-control groups, while regression analysis shows that work–family conflict is the strongest proximal correlate of relationship quality.

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6. Discussion

6.1 Boundary Control Matters More Than Simple Connectivity Counts

The findings support a conceptual shift from asking whether employees use technology after working hours to asking who controls the boundary crossing. Smartphones, email, and digital work platforms are neither inherently family-supportive nor inherently family-damaging. Their effects depend partly on whether connectivity is voluntary, predictable, and consistent with an individual's preferred boundary arrangement.

This position is consistent with Kossek and colleagues' work showing that perceived control is an important characteristic differentiating work–nonwork boundary-management profiles. It also corresponds with Allen, Cho, and Meier's conclusion that work–family boundary dynamics cannot be reduced to a simple integration-versus-segmentation dichotomy.

The nonsignificant direct ICT-demand coefficient in the simulated multivariable model is particularly useful conceptually. It illustrates how raw connectivity may become less explanatory after the employee's experience of conflict and control is considered. Two people can receive the same evening message but experience fundamentally different outcomes. One employee may voluntarily answer a two-minute question and then return psychologically to family interaction. Another may feel required to remain continuously alert for additional requests, creating sustained interruption and anticipatory attention.

This distinction also helps explain why empirical findings concerning after-hours smartphone use have sometimes appeared inconsistent. Derks and colleagues found that greater smartphone use could support family-role performance among employees preferring integration, while Jostell and Hemlin concluded that after-hours teleworking itself was not uniformly associated with severe work–family conflict. The subjective and organizational context of connectivity therefore requires greater attention.

6.2 Work–Family Conflict as the Relational Transmission Mechanism

The simulated model identified work–family conflict as the strongest predictor of relationship quality. This is theoretically plausible because employment obligations do not have to damage relationships merely by existing. Relational consequences emerge when occupational demands prevent individuals from fulfilling valued family roles or repeatedly disrupt interpersonal exchanges.

Fellows and colleagues' meta-analysis provides direct empirical support for this relationship by identifying a significant negative association between work–family conflict and couple relationship quality across numerous studies. Amstad and colleagues likewise demonstrated that work–family conflict is associated with a broad range of family and nonwork outcomes.

Digital interruption can create conflict through both behavioral and psychological pathways.

Behaviorally, an employee may leave a family conversation to answer a call, interrupt childcare to respond to a message, postpone a shared activity, or repeatedly divide visual attention between family members and a device. Psychologically, the employee may remain preoccupied with unfinished tasks even when no device is actively being used.

Workplace telepressure is particularly relevant to the second pathway. Barber and Santuzzi showed that the urge to respond rapidly to work messages represents a meaningful occupational experience rather than merely a neutral communication habit. Barber, Conlin, and Santuzzi subsequently

linked telepressure with poorer evaluations of work–life balance through recovery-related processes. Kao and colleagues additionally showed that ICT availability demands can translate into work–family conflict through telepressure.

Family relationship research should therefore distinguish physical presence from relational presence. An employee can be sitting in the same room as family members while occupational communication continues to command attention. Repeated partial attention may be especially consequential when partners or children interpret digital responsiveness as evidence that work is consistently prioritized over family interaction.

6.3 Organizational Implications for Sustainable Digital Boundaries

Digital boundary management is often framed as an employee self-control issue: silence notifications, put away the phone, or avoid checking email. Such recommendations can be useful, but they are inadequate when organizational norms punish nonresponsiveness.

Yang and colleagues demonstrated that group segmentation norms influence the relationship between individual boundary preferences, ICT use at home, and work–family conflict. The implication is that organizations help determine whether employees can translate personal boundary preferences into actual behavior.

Employers should therefore establish differentiated communication norms. Truly urgent communication can remain available while routine messages are explicitly permitted to wait until scheduled working time. Organizations can clarify escalation procedures, distinguish expected from optional availability, discourage unnecessary copying of employees into evening communication, and avoid evaluating commitment through response speed outside formal work periods.

Managers have a particularly important role because formal policies can be undermined by informal expectations. A company may officially support work–life balance while supervisors routinely send evening messages accompanied by implicit expectations of immediate action. Employees usually respond to experienced consequences rather than written policy alone.

Remote and hybrid work make boundary control even more important. Wang, Liu, Qian, and Parker's research on effective remote working during the COVID-19 period highlighted the significance of work design and the challenges employees face under virtual working arrangements. Vaziri and colleagues similarly demonstrated substantial changes in employees' work–family interface during the pandemic. These studies reinforce the importance of designing digital work systems that provide flexibility without transforming flexibility into continuous availability.

7. Conclusion

Digital technologies have made the work–family boundary more permeable than at any earlier period of conventional office work. The practical capacity to communicate at almost any time offers genuine benefits, including temporal flexibility, rapid coordination, and opportunities to redistribute occupational responsibilities around family needs. Yet these benefits do not eliminate the possibility of relational strain. The critical distinction developed in this paper is between digital connectivity and digital boundary control.

The simulation demonstrates how this distinction can be examined analytically without fabricating empirical participants. In the synthetic sample, stronger digital boundary control was positively associated with family relationship quality, whereas work–family conflict emerged as the strongest negative predictor. After-hours ICT demands had only a small direct association after these variables were included, illustrating that the relational consequences of digital work may depend less on the mere existence of technology and more on whether digital demands actually interfere with family functioning.

This interpretation is consistent with boundary-management research showing the importance of perceived control, research demonstrating that ICT availability and telepressure can contribute to work–family conflict, and meta-analytic evidence connecting work–family conflict with poorer couple relationship quality. At the same time, evidence that some employees can use after-hours connectivity flexibly reinforces the need to avoid universal prescriptions.

The practical objective should therefore not be complete technological disconnection in every occupation or household. A more sustainable approach is to maximize meaningful choice over connectivity. Employees should know which demands genuinely require immediate attention, when they may disengage without penalty, and how family time can remain protected from routine occupational intrusion. Organizations that provide such control can preserve the advantages of digital flexibility while reducing unnecessary conflict between work and close relationships. Future empirical research should test this framework with longitudinal, daily-diary, and dyadic family designs so that the temporal movement from digital demand to boundary experience, work–family conflict, and relationship quality can be established with greater precision.

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