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Work-related mobile internet usage during off-job time and quality of life: The role of work family conflict and off-job control

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Abstract

The unexpected outbreak of the COVID-19 pandemic brought unprecedented challenges to various aspects of society, including education and work practices. Although tremendous progress has been achieved in reducing the severe impact of COVID-19 on education, its repercussions are still apparent in behaviours connected to the workplace and people's views of their general quality of life (QOL). In this research paper, we investigate the relationship between work-related mobile internet usage during off-job time and quality of life considering the mediating effect of work-family conflict and the moderating effect of off-job control. Data were collected from 341 faculty members and the obtained data was analyzed by Smart PLS structural equation modeling (PLS-SEM) using a cross-sectional research design. The study findings reveal that both work-related smartphone use during off-job hours and work-family conflict significantly and negatively impact the quality of life of faculty members. Moreover, the study identified that individuals with greater perceived off-job control demonstrated better quality of life outcomes despite the challenges posed by work-related smartphone use. The results of this study contribute to the understanding of the implications of COVID-19 on work practices and personal well-being. Given the growing reliance on smartphones and digital connectivity in the post-pandemic era, it underscores the importance of recognizing the boundaries between work and personal life. Additionally, it highlights the need for employers and policymakers to establish policies and interventions that promote off-job control enabling individuals to disengage from work-related demands during non-work hours effectively.

Keywords: COVID-19, Education, Hospitality, Off-job control, Quality of life, Smartphone, Work family conflict.

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1. Introduction

Telecommuting grew during the COVID-19 pandemic, keeping organizations, schools, universities and governments working virtually while the physical space was locked [1]. Globally, higher education was severely disrupted as a result of universities being obliged to move from face-to-face teaching to distance learning or online learning to stop the virus's spread [2]. The switch to online education was accompanied by lifestyle changes that adversely influenced the students' and faculty's mental health [3]. The faculty was affected by this abrupt change since they had to substantially reorganize lectures, courses and appraisal procedures in addition to adapting to all the other lifestyle adjustments required by the COVID-19 restriction [4]. During this period, faculty members were compelled to perform many work-related tasks using smartphones, i.e. frequently use information and communication technology (ICT) which allowed students to contact them during off-job time [5]. Though face-to-face education was considerably returned, students still continued to contact their faculty beyond work hours as they did during lockdowns though face-to-face education was considerably returned. The smartphone made faculty connected with their work (job and students) without being restrained by time or space by checking their work-related notifications such as WhatsApp messages or e-mails during their off-job time [6]. This made the work role spillover into personal and family life roles and, thus, inter-role conflict increase [7]. According to the boundary theory, when work and family times overlap due to the inability of the faculty staff to specify and balance work time and downtime, they lose the ability to achieve a work-life balance [8, 9]. Similarly, a growing body of empirical research related to this has revealed a link between increased work-to-family conflict (WFC) and everyday mobile internet usage for work-related tasks outside standard working hours [10].

Many studies relied on the “conservation of resources theory” (COR) [11] which asserts that individuals sense pressure when the required resources are lost or threatened to be lost to explore and prove the negative connection between work-family conflict and various facets of QoL [12] such as life satisfaction [13], job, family and marital satisfaction [14] and family well-being [15] based on the fact that resources are essential for helping families cope with stress and strain [16].

On the other hand, off-the-job resilience experiences are crucial for restoring self-control resources based on the “integrative self-control theory” (ISCT) [17]. Off-job control, one of the four recovery experiences in ISCT enables individuals to decide how to spend their leisure time and organize off-job time [17, 18]. Thus, exploring off-job control as a boundary variable can provide a nuanced interpretation of the relationships between work-related mobile internet usage during off-job time (WRMIU), quality of life (QOL) and work-family conflict (WFC).

In response to previous research recommendations to explore the significance of various antecedents of the QoL concept in different countries and sectors [19] specifically in the education sector during and post-COVID-19 due to new educational and academic challenges and growing student needs which greatly expanded the demand and expectations imposed on faculty members [20]. The current study based on the boundary theory which states that “the conservation of resources theory” (COR) and the integrative self-control theory (ISCT) strive to test the interrelationship between work-related mobile internet usage during off-job time (WRMIU), quality of life (QOL) and work-to-family conflict (WFC) with the moderating impact of off-job control (OJC) on two associations in the proposed model in the educational sector, specifically in the university sector in a developing country. Data were tested using “structural equation modelling” (SEM) with the Smart-PLS technique. Therefore, exploring the relationships between the variables in this study can contribute to understanding how the WRMIU creates WFC and affects the QoL of faculty members in general. This study places the solution in the necessity of setting clear boundaries between official working hours and the time allocated to the family to create a kind of balance between the two and thus improve the quality of life among faculty members which ultimately focuses on improving the entire educational process.

2. Literature Review

2.1. Work-Related Mobile Internet Usage during Off-Job Time (WRMIU) and Quality of Life (QOL)

Smartphones act as mini-computers and contain various features including internet and social media access, digital calendars, phone calls and most significantly, the ability to write and receive emails [21]. Therefore, the smartphone is one

of the most commonly used “information and communication technologies” (ICT) as a communication tool for the workforce [22]. Smartphones enable an increasing number of employees to complete their own tasks regardless of space and time [23]. Employees through mobile internet usage can remain in touch with patrons and co-workers and be always available for employers [24]. Thus, they became correlated and raised several expectations to always be available beyond official work hours [25]. The negative impacts of communications technology such as smartphones, use outside of work hours result from the distorting of boundaries between work and personal (family or life) time which leaves workers with less time to detach from their jobs and recover from stressful workplace situations [26]. Work-related mobile internet usage during off-job time (WRMIU) is linked to greater levels of WFC [27] and distress [28]. Although these investigations reveal the adverse effects of WRMIU on family aspects, studies on general well-being and QoL are sparse [29] especially during the impacts of COVID-19 in the education field.

The concept of quality of life (QoL) has several definitions in different sciences, i.e., “philosophy, political science and health” [30]. The QoL concept was defined as comprehensive satisfaction with life [31]. According to the World Health Organization, QoL refers to people's perceptions of their own position in life concerning their objectives, aspirations, standards and concerns in light of the culture and the value of the systems in which they live [32]. This definition was considered the most profound and based on it, scholars concluded a set of interrelated domains for the QoL concept, including (1) physical-related health which concerns functional-related ability, the comfort of the body, health maintenance and promotion. (2) Psychological related health which comprises social support, mental health, cultural and interpersonal dynamics. (3) Social related relationships which refer to both one's social network and the more extensive societal network at large. (4) Environment: this covers socioeconomic standing, transportation, safety, aesthetics and assistance devices. (5) Metaphysical domain: this addresses “self-esteem, self-determination, cognition, purpose, optimism and life satisfaction” and (6) spiritual domains: this encloses “prayer, worship, fellowship and meaning” in the spectrum of QoL [33]. In this context, according to studies, people's overall happiness in life is strongly correlated with their level of pleasure at work making work an essential source of QoL for individuals [34]. QoL is influenced by the health-related quality of work life [35]. Growing practical research has demonstrated that obligated WRMIU is connected to higher levels of WFC [36], lower employee well-being and lower levels of detachment and recovery [29] because the time used to work takes time away from interaction and relations with the family and recovery from work-related stress [26]. Furthermore, WRMIU specifically in the evening might deplete energy resources by affecting sleep quality [37]. Accordingly, we argue that WRMIU decreases the quality of work life and thus, negatively affects QoL. Consequently, the subsequent hypothesis was put forth as:

Hypothesis 1 (H₁): WRMIU has a negative correlation with HRQoL.

2.2. Work-Related Mobile Internet Usage during Off-Job Time (WRMIU) and Work Family Conflict (WFC)

The concept of WFC coined by Greenhaus and Beutell [38] is “a form of inter-role conflict in which the role pressures from the work and family domains are mutually incompatible in some respect.” According to Kossek and Lee [39] the WFC construct consists of three elements: (1) Behavior-based conflict which refers to circumstances where specific actions, regulations and demands necessary for one specific role (family or work) are discovered to be mismatched with those essential for the other role, (2) time-based conflict which is when one of these two specific roles (i.e., work-family or family-work) requires time that it is impossible to meet the requirements of the other role. (3) The final type of WFC is strain-based conflict which occurs when a person is overworked and tense, experiencing stress, anxiety and discontent in one area subsequently impairing performance in the other domain. Consequently, WFC has a negative relationship with worker outcomes in the workplace such as job satisfaction [40], affective commitment [41] and well-being [42, 43].

T usage can cause employment difficulties by causing various pressures, including overload, interference with family time, role ambiguity, and complexity [44, 45]. In the university context, a practical study conducted on university staff found that WRMIU was correlated with more WFC and boosted work satisfaction [46]. The role of work overshadowed the role of the family. These justifications lead to the following hypothesis:

Hypothesis 2 (H₂): WRMIU positively impacts WFC.

2.3. Work Family Conflict (WFC) and Quality of Life (QoL)

An imbalanced commitment to work and family responsibilities increases chronic WFC because imbalanced employees are not entirely committed to both roles, they let “situational urgencies” restrict role performance chronically [47]. Within this framework, a growing body of related research has linked WFC and life satisfaction [13] facets of QoL, like family, job, and marital satisfaction [14] well-being, like physical symptomatology and emotional impact [48] emotional distress and exhaustion [49], family intrusions into the job and the mood conditions of people [12]. Hence, the third hypothesis was suggested:

Hypothesis 3 (H₃): WFC negatively impacts QoL.

2.4. The WFC as a Mediator between WRMIU and QoL

The overhead hypotheses will be incorporated to construct a mediation model. The current study adopted the boundary and conservation of resources (COR) theories to theorize how WFC will mediate the connection between WRMIU and QoL. It is predicted that WRMIU will directly lessen the level of QoL (H1) and increase the level of WFC (H2) which in turn will indirectly reduce QoL (H3). Therefore, the next hypothesis was suggested:

Hypothesis 4 (H₄): WFC mediates the influence of WRMIU on QoL.

2.5. Off-Job Control (OJC) as a Moderator

The “integrative self-control theory” (ISCT) [17] postulates that a desire and goal conflict (e.g., a competition between a desire to fully perform the family role and a goal to persist in employment after time to satisfy the employer) decreases resources of self-regulation thus generating stress and tension which in turn may increase WFC. Similarly, boundary theory hypothesises that WRMIU performing supplemental work may increase WFC because the closeness of the two related roles may lead to unexpected disruptions while acting either role, misunderstandings regarding when to achieve the work-related role versus the family-pertaining role and the incapacity to disengage from one specific role to pass the other role entirely [36]. Otherwise, performing technology-founded flexible-mental work at home and time management may help employees decrease WFC and the negative effect on QoL that could result from WRMIU [50]. Thus, it's critical that staff members feel in control of their evening activities (i.e., off-job control). Off-job control enables employees to regulate off-job time and recover after work which mitigates the consequences of WRMIU in the evening [51]. Therefore, WFC and some aspects of QoL were affected by the level of off-job control and boundary control [45]. Therefore, the two theories that this study presents are as follows as shown in Figure 1:

Hypothesis 5 (H₅): OJC moderates the impact of WRMIU on WFC.

Hypothesis 6 (H₆): OJC moderates the effect of WFC on QoL.

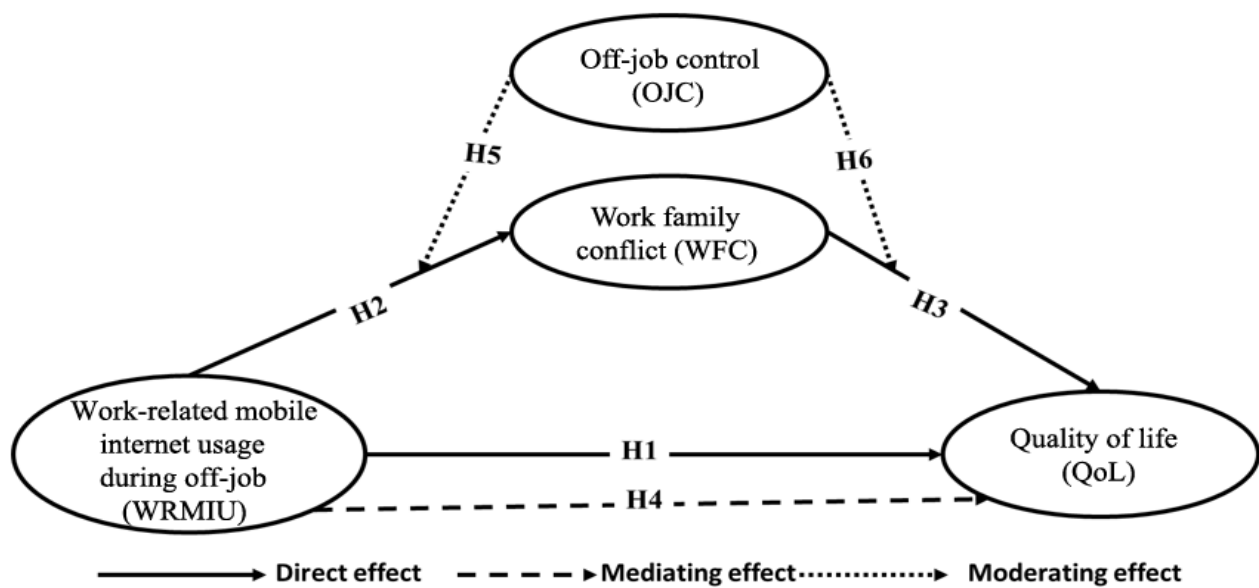


Figure 1.
The proposed research model.

3. Research Methodology

3.1. Samples and Data Sources

A questionnaire collected information from targeted faculty members in Egypt's tourism and hospitality faculties. Tourism and hotel faculties were chosen since the study authors closely relate to them under their common scientific specialization. The data were gathered from March to May 2023, using "convenient sampling" and "drop-off and pick-up" techniques. The survey was broken into two steps. At the beginning of the survey, faculty were given instructions to provide the required data for demographic data, work-related mobile internet usage during off-job time (WRMIU) and quality of life (QoL) variables in the first phase of the survey. One month following the first step, faculty staff at the same faculties completed the work-family conflict (WFC) and off-job control (OJC) variables questionnaires. The two-stage surveys involved a total distribution of 550 questionnaires. After eliminating the unqualifying responses, 341 questionnaires were considered to generate a 62% productive recovery ratio. The sample included 189 women (55.4%) and 152 men (44.6%). The participants' ages ranged primarily between 26 and 63 (see Table 1).

Table 1.
Respondents profile.

| Category | Group (N = 341) | Frequency % |
|--------------|-----------------|-------------|
| Gender | | |
| Male | 152 | 44.6 |
| Female | 189 | 55.4 |
| Age group | | |
| 25–35 | 42 | 12.3 |
| 36–45 | 82 | 24 |
| 46–55 | 123 | 36 |
| 56 and above | 94 | 27.7 |

3.2. Measurement of Variables

The literature was consulted for and used to create questionnaire questions for all the variables. Each variable was valued on a 5-point Likert scale. The WRMIU was evaluated using 4-items recommended by Derks and Bakker [52]. The three items proposed by Gonzalez-De-la-Rosa, et al. [53] were used to assess the QoL. 5-items from the study by Netemeyer, et al. [54] were used to evaluate the WFC. Finally, the 4 items from Sonnentag and Fritz [55] were adopted to measure the OJC. The survey questions were also transcribed and modified in order to increase their readability and clarity. Twenty-one faculty colleagues subjected it to validation. The survey's content remained unchanged throughout these assessments.

3.3. Data Analysis

Partial-least squares (PLS) was used with SmartPLS software version 4.0 to perform structural equation modelling (SEM) to assess the hypothesized model. PLS proves beneficial and practical when the study's primary aim is to predict or more variables as opposed to validating an already well-established theoretical framework [56]. In our paper, PLS-SEM demonstrates practicality by assessing the interconnections among WRMIU, QoL and WFC as a mediating factor between WRMIU and QoL and the moderating influence of OJC on both WRMIU's impact on WFC and WFC's impact on QoL. Furthermore, the PLS technique proves effective across diverse sizes, offers a more refined model with fewer data constraints and serves as a potent analytical tool [57]. Furthermore, PLS-SEM permits the insertion of several reflective variables per factor when assessed with alternative statistical techniques in accordance with Leguina [58]. The PLS-SEM approach passes through two steps: "structural modelling and measurement modelling".

4. Results

4.1. Assessment of the Outer Model

The measuring model evaluates both "convergent validity" (CV) and "discriminant validity" (DV) to ensure the quality of the collected data. In terms of CV, it examines Cronbach's alpha which should exceed 0.50 to assess associations between indicators [59], "composite reliability (CR)" which must be above 0.60 [60] "Average Variance Extracted" (AVE) which should surpass 0.50 [57] and "factor loading," preferably above 0.50 [61]. Regarding DV, the study ensures that items are distinguishable when using various techniques to evaluate other parameters. According to Fornell and Larcker [60], if the $\sqrt{\text{AVE}}$ of the dimension is greater than the link between that factor and other factors in the suggested model, the factor satisfies the statistical measures for "discriminant validity." Additionally, the "Heterotrait-Monotrait" ratio of correlation (HTMT) is tested to verify "discriminant validity" in response to critiques of "Fornell and Larcker's criterion" [62].

The CV values in Table 2 demonstrate that all specified maximum and minimum levels were satisfied confirming the validity of the proposed outer model. Furthermore, the values of $\sqrt{\text{AVE}}$ and "HTMT" as depicted in Tables 4 and 5, respectively meet the recommended criteria, establishing that their "discriminant validity" is acceptable (DV).

Table 2.
Psychometric results.

| Variables and their items | Path coefficient | (a value) | (C_R) | (AVE) |
|--|------------------|-----------|-------|-------|
| "Work-related mobile internet usage during off-job time" (WRMIU) | | 0.899 | 0.929 | 0.767 |
| WRMIU_1 | 0.886 | | | |
| WRMIU_2 | 0.896 | | | |
| WRMIU_3 | 0.894 | | | |
| WRMIU_4 | 0.826 | | | |
| "Quality of life" (QoL) | | 0.870 | 0.920 | 0.795 |
| QOL_1 | 0.790 | | | |
| QOL_2 | 0.950 | | | |
| QOL_3 | 0.926 | | | |
| "Work-family conflict" (WFC) | | 0.919 | 0.939 | 0.755 |
| WFC1 | 0.864 | | | |
| WFC2 | 0.843 | | | |
| WFC3 | 0.859 | | | |
| WFC4 | 0.887 | | | |
| WFC5 | 0.890 | | | |
| "Off-job control" (OJC) | | 0.845 | 0.894 | 0.680 |
| OJC1 | 0.841 | | | |
| OJC2 | 0.869 | | | |
| OJC3 | 0.874 | | | |
| OJC4 | 0.702 | | | |

Furthermore, the item loading within Table 3's construct which is greater than any of its cross-loadings with other constructs supports the DV.

Table 3.
Factor cross-loadings.

| Items | WRMIU | QoL | WFC | OJC |
|---------|--------|--------|--------|--------|
| WRMIU_1 | 0.886 | -0.434 | 0.422 | -0.342 |
| WRMIU_2 | 0.896 | -0.468 | 0.515 | -0.376 |
| WRMIU_3 | 0.894 | -0.450 | 0.508 | -0.398 |
| WRMIU_4 | 0.826 | -0.380 | 0.373 | -0.321 |
| QOL_1 | -0.277 | 0.790 | -0.328 | 0.363 |
| QOL_2 | -0.509 | 0.950 | -0.505 | 0.349 |
| QOL_3 | -0.501 | 0.926 | -0.498 | 0.373 |
| WFC_1 | 0.454 | -0.430 | 0.864 | -0.213 |
| WFC_2 | 0.427 | -0.454 | 0.843 | -0.249 |
| WFC_3 | 0.454 | -0.446 | 0.859 | -0.324 |
| WFC_4 | 0.473 | -0.421 | 0.887 | -0.271 |
| WFC_5 | 0.470 | -0.453 | 0.890 | -0.337 |
| OJC_1 | -0.269 | 0.307 | -0.253 | 0.841 |
| OJC_2 | -0.391 | 0.347 | -0.309 | 0.869 |
| OJC_3 | -0.408 | 0.419 | -0.298 | 0.874 |
| OJC_4 | -0.255 | 0.195 | -0.172 | 0.702 |

Emphasized elements: In the case of the dependent variable (DV), the "outer factor loading" of reflective variables should exhibit higher scores than the cross-loading-related scale measurements.

Table 4.
"Fornell–Larcker criterion matrix".

| Variables | OJC | QoL | WFC | WRMIU |
|--|--------|--------|-------|-------|
| Off-job control (OJC) | 0.824 | | | |
| Quality of life (QoL) | 0.402 | 0.891 | | |
| Work family conflict (WFC) | -0.323 | -0.508 | 0.869 | |
| Work-related mobile internet usage during off-job time (WRMIU) | -0.412 | -0.497 | 0.525 | 0.876 |

Highlighted scores: The Average Variance Extracted (AVE) values (highlighted) should surpass the inter-item correlation coefficient to establish the validity of the dependent variable (DV).

Table 5.
HTMT results.

| Variables | OJC | QoL | WFC | WRMIU |
|--|-------|-------|-------|-------|
| Off-job control (OJC) | | | | |
| Quality of life (HRQoL) | 0.453 | | | |
| Work family conflict (WFC) | 0.353 | 0.557 | | |
| Work-related mobile internet usage during off-job time (WRMIU) | 0.456 | 0.542 | 0.571 | |

Note: HTMT: For fit "discriminant validity", all HTMT values must be < 0.90.

4.2. Hypothesis Testing

This paper uses the "variance inflation factor" (VIF) to investigate collinearity issues aiming to identify their presence and alleviate the impact of variables on the expected model's contribution. According to [Hair, et al. \[57\]](#), multicollinearity correction is deemed unnecessary for VIF values below 5. The accuracy of the regression model in explaining the data is assessed using the "coefficient of determination" (R²) and "Stone-Geisser's" (Q²). In behavioral research, R² score of 0.20 is considered a high threshold [\[57\]](#). Similarly, Q² scores reach the recommended score of 0 [\[63\]](#). The VIF, R² and Q² results are detailed in [Table 6](#).

Table 6.
VIF, R², and Q² outcomes.

| Name | VIF score | Name | VIF score | Name | VIF score | Name | VIF score |
|----------------------------|-----------|-------|-----------|----------------|-----------|----------------|-----------|
| WRMIU_1 | 3.179 | QOL_1 | 1.752 | WFC2 | 2.459 | OJC1 | 2.054 |
| WRMIU_2 | 3.189 | QOL_2 | 4.248 | WFC3 | 2.681 | OJC2 | 2.155 |
| WRMIU_3 | 2.919 | QOL_3 | 3.582 | WFC4 | 3.032 | OJC3 | 2.074 |
| WRMIU_4 | 2.312 | WFC1 | 2.651 | WFC5 | 3.092 | OJC4 | 1.541 |
| Quality of life (QoL) | | | | R ² | 0.445 | Q ² | 0.338 |
| Work family conflict (WFC) | | | | R ² | 0.378 | Q ² | 0.276 |

In contrast to "covariance-based SEM" (CBSEM), PLS lacks certain statistical metrics such as χ^2 and other indicators for model fit validation [64]. To address this limitation, the "Goodness of Fit" (GoF) is recommended as a viable method to affirm the model's adequacy [65]. According to Mital, et al. [66] and Tenenhaus, et al. [65], the GoF can be computed using the method outlined below.

$$\text{Goodness of fit} = \sqrt{AVE_{\text{avg}} \times R^2_{\text{avg}}}$$

Tenenhaus, et al. [65] indicated that the GoF benchmark values of .1, .25 and .36 designate correspondingly low, moderate and strong levels of Goodness of Fit. The model presented in this research demonstrates a GoF score of 0.555 signifying a notably robust GoF measure. Furthermore, the model's appropriateness was measured using the "Standardized Root Mean Square Residual" (SRMR) which compares observed correlation variances. An SRMR score below .1 signifies a fitting model [67]. Our model's SRMR value stands at 0.061 indicating a favourable model fit.

After confirming the accuracy of the proposed models, we looked at the study's suggested and justified hypotheses. To compute the "regression weights" (β), "t-statistics" and the "significance P" of direct, indirect, mediating and moderating paths, a 5000 bootstrapping repetition was conducted employing Smart PLS v3. As shown in Table 7, six hypotheses were examined: three were direct hypotheses, one was a mediating hypothesis and two were moderating hypotheses.

Table 7
Hypotheses results.

| Paths | β value | t value | p value | Result |
|---|---------------|---------|---------|-------------|
| Direct paths | | | | |
| H1: WRMIU \rightarrow QoL | -0.154 | 2.262 | 0.024 | "Supported" |
| H2: WRMIU \rightarrow WFC | 0.556 | 9.479 | 0.000 | "Supported" |
| H3: WFC \rightarrow QoL | -0.490 | 6.445 | 0.000 | "Supported" |
| Indirect mediating paths | | | | |
| H4: WRMIU \rightarrow WFC \rightarrow QoL | -0.273 | 6.011 | 0.000 | "Supported" |
| Moderating effects | | | | |
| H5: WRMIU \times OJC \rightarrow WFC | -0.248 | 5.822 | 0.000 | "Supported" |
| H6: WFC \times OJC \rightarrow QoL | 0.261 | 4.589 | 0.000 | "Supported" |

Given the outcomes shown in Table 7 and Figure 2, the WRMIU significantly and negatively affected QoL ($\beta = -0.154$, $t = 2.262$, $p < 0.001$) and positively impacted WFC ($\beta = 0.556$, $t = 9.479$, $p < 0.000$) confirming H1 and H2. Additionally, the results give evidence that the WFC had a negative and significant effect on QoL $\beta = -0.490$, $t = 6.445$ and $p < .00$ supporting H3. The link between WRMIU and QoL was also mediated through the WFC according to the results at $\beta = -0.273$, $t = 6.011$, and $p < .00$ signifying that H4 can be confirmed.

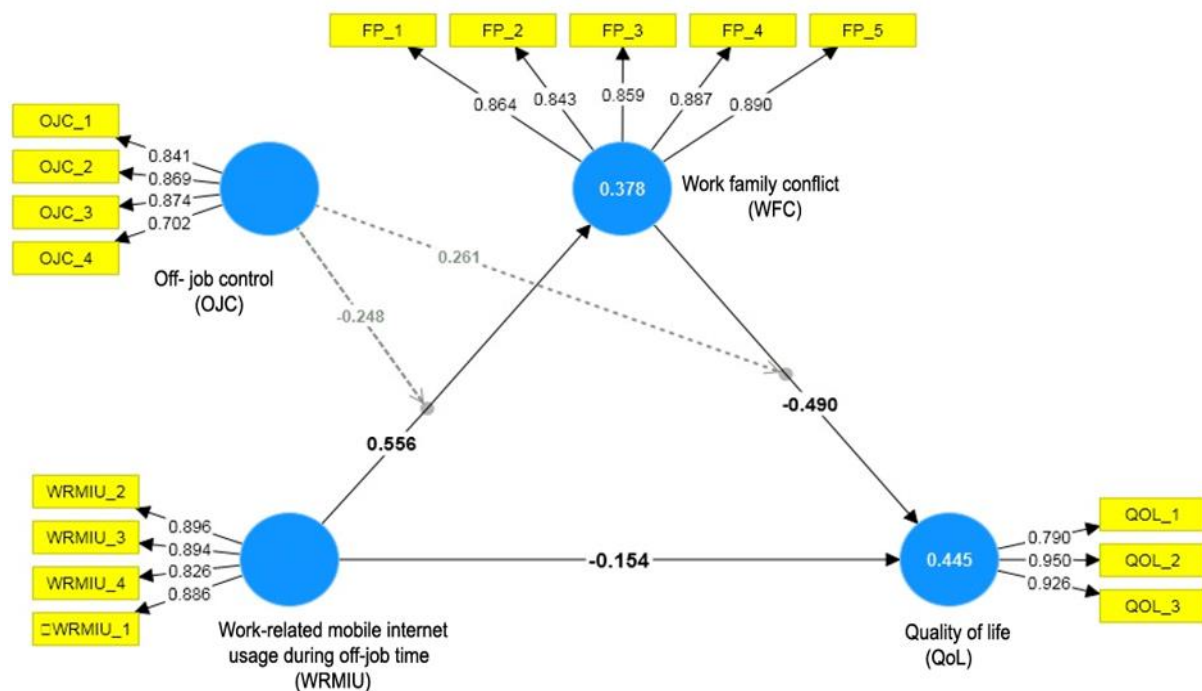


Figure 2.
The study models.

The SmartPLS examination revealed that OJC substantially reduces the significant and positive impact of WRMIU on WFC ($\beta = -0.248$, $t = 5.822$, and $p = 0.000$) confirming H5 with regard to moderating impacts as shown in Figure 3 .

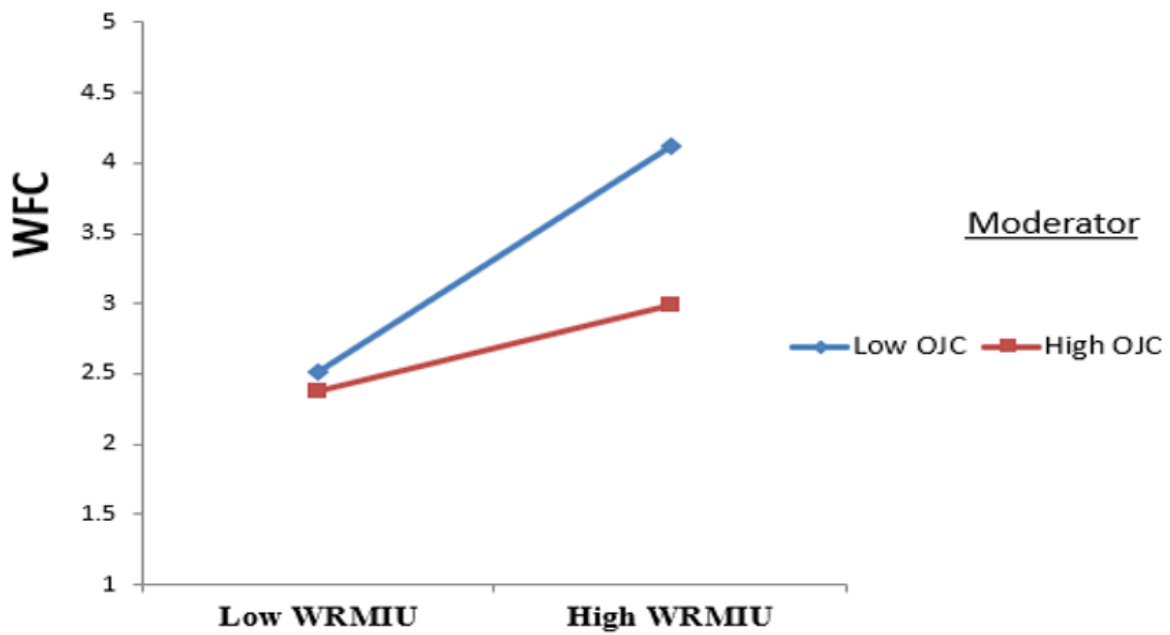


Figure 3.
Interaction plot for OJC's as a moderation between WRMIU and WFC.

Similarly, OJC reduces the negative effect of WFC on QoL ($\beta = 0.261$, $t = 4.589$, and $p = 0.000$) providing support for H6 as demonstrated in Figure 4.

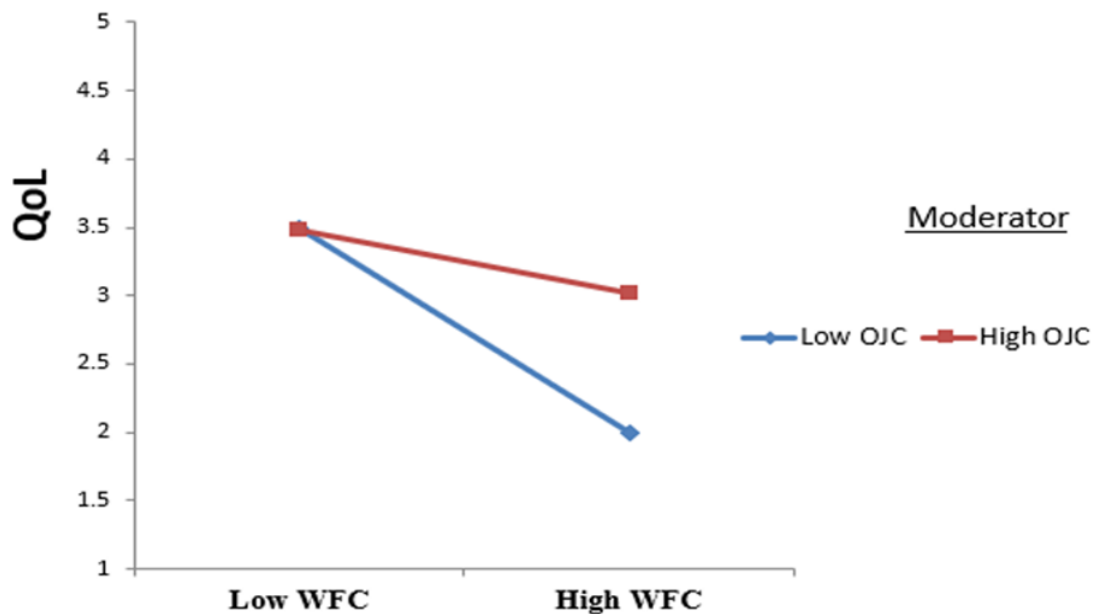


Figure 4.
Interaction plot for OJC's as a moderation between WFC and QoL.

5. Discussion and Implications

Prior studies on WRMIU have emphasized how it has significantly altered peoples' daily lives and more especially, how it has blurred the boundaries between work and people's personal lives [10, 52, 68]. The current study strives to add to previous related research by highlighting the effect of WRMIU as causing FWC and a negative impact on QoL in the faculty community considering the role of OJC in regulating off-job time and faculty recovering after work hours in Egyptian tourism and hotel faculties as an example of a developing country. Consequently, the outcomes of our empirical investigation successfully achieved their intended goals contributing to the advancement of the literature on family quality of life and enriching theoretical discourse through the application of the proposed model. The study's outcomes revealed a positive impact of WRMIU on QoL (H1). Interestingly, earlier empirical studies have argued that WRMIU is inversely

related to the vital psychological detachment necessary for effective recovery outside of work. Therefore, WRMIU might hinder the process of off-job recovery [69, 70] and arguably impact QoL.

Similarly, the research identified a positive relationship between WRMIU and WFC (H2). In a broader context, it is possible that these behaviours could conceal the boundaries between the personal and professional domains leading to the occurrence of work-family conflict (WFC) given how easily faculty members can access work-related emails they anticipate receiving in the evening or messages from their family after daily events through their smartphones [71].

The results of the study showed that WFC had a negative impact on QoL supporting an alternative statistical trajectory within the research framework that corresponds to the assertions that issues balancing work and family obligations may influence time-out activities, house management and parent-child relationships (H3). Generally, the quality of family life is represented by three dimensions, namely, (1) cohesion which helps family members feel connected and emotionally bonded to one another. Some people may be unable to support their families emotionally or psychologically due to the conflicting demands of work and family. (2) Decision-making refers to the family's evaluation process in selecting or resolving alternatives. WFC may make this process require a significant amount of time and effort. (3) Family satisfaction pertains to an individual's favorable or unfavourable evaluation of family life; WFC consequences will probably harm estimates of family satisfaction [72]. Thus, the negative impact of WFC on the three dimensions of quality of family life will predictably extend to the overall QoL.

One of the primary objectives of our study was to investigate the mediating role of WFC. Our findings indicate that WFC effectively mediates the relationship between WRMIU and QoL (H4). Drawing from boundary theory, faculty members navigate WFC aspects as a result of WRMIU transcending the boundaries between their family and work domains. Additionally, adhering to the "Conservation of Resources Theory" (COR), the combination of WRMIU and WFC leads to the depletion of resources that impact QoL. Consequently, these findings corroborate the mediating function of WFC.

Furthermore, our "PLS-SEM" analysis revealed the moderating impact of OJC on the connection between WRMIU and WFC (H5), as well as on the link between WFC and QoL (H6). OJC's ability to manage and structure faculty members' off-job time and its effectiveness in aiding post-work recovery demonstrated successful moderation of these relationships.

Finally, the practical implications of our study suggest that faculty deans should consider organizing training programs or workshops to raise awareness about the detrimental consequences of excessive WRMIU. Additionally, establishing clear policies regarding faculty availability expectations during off-job or evening hours can help safeguard personal boundaries and prevent work time from encroaching on family time.

6. Conclusion, Limitations and Future Research

This research paper investigated the interrelationship among WRMIU and its influence on the QOL of faculty members with a specific focus on the mediating influence of WFC and the moderating effect of OJC. The empirical investigation conducted in this study revealed a significant negative impact of WRMIU on faculties' QoL. Significantly, this negative influence is partially explained by the mediating role of WFC, signifying that constant connectivity through mobile internet can engender conflicts between work and family responsibilities, ultimately leading to reduced overall well-being. Furthermore, the results also demonstrated the moderating effect of OJC suggesting that employees who possess higher control over their off-job time are better equipped to manage the adverse consequences of work-related mobile internet usage, thereby mitigating its negative impact on their QoL and its positive effect on WFC. Thus, the findings obtained in this study give valuable insights into the intricate dynamics between mobile internet usage, work-family dynamics, and individual control over off-job time contributing to the broader literature on work-life balance and employee well-being in the digital age.

This study has certain limitations. This paper used a cross-sectional design collecting data at a single point in time. This design restricts the ability to establish causal relationships between work-related mobile internet usage, work-family conflict, off-job control and quality of life. Longitudinal studies that follow participants over time would provide a better understanding of the directionality and changes in the relationships between the variables. Furthermore, although this study examined work-family conflict as a mediator and off-job control as a moderator, other variables might also mediate or moderate the relationship between mobile internet usage and quality of life. For instance, personality traits, job characteristics and social support networks could play significant roles. Future research could explore additional mediators and moderators to provide a more comprehensive understanding of the complex dynamics involved.

As technology continues to evolve and permeate various aspects of life, the challenges and opportunities associated with work-related mobile internet usage are likely to persist. Therefore, continuous and further research, open dialogue and collaborative efforts are essential in devising effective strategies to manage technology usage, promote work-life harmony, and enhance the quality of life for individuals and society as a whole. Stakeholders can proactively shape the future of work to ensure a more balanced, fulfilling and sustainable work-life integration by recognizing the multifaceted nature of work-related mobile internet usage and its implications.

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