Through the Lens of Workers’ Motivation: Does It Relate to Work–Family Relationship Perceptions?

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Abstract: Workers’ motivations and the work–family relationship are two subjects that have been capturing the attention of researchers and practitioners. However, to date, little is known about the link between the two subjects. Thus, this research aimed to investigate the relationships among each type of motivation conceptualized in self-determination theory and work–family conflict, work–family enrichment, and work–family balance. In addition, the current study intended to investigate the relationships among work–family conflict, work–family enrichment, and Work–family balance. Data were collected through a self-administered questionnaire. To test the hypotheses, the PROCESS macro was used. The results suggested that intrinsic motivation is negatively associated with work–family conflict and positively associated with work–family enrichment and work–family balance. Additionally, identified regulations seem to be positively associated with work–family enrichment and work–family balance. However, contrary to expectations, this study revealed a positive relationship between introjected regulation and work–family enrichment and work–family balance. Concerning external regulation (material and social) and amotivation, globally, the findings were consistent with the hypotheses, i.e., the higher the external regulation and amotivation, the higher work–family conflict and the lower the work–family enrichment and work–family balance. Moreover, the higher the work–family conflict, the lower the work–family balance, and the higher the work–family enrichment, the higher the work–family balance. Theoretical and practical implications are discussed.

Keywords: motivation; self-determination theory; work–family balance; work–family enrichment; work–family conflict

1. Introduction

It is well-known that work and family connect in different and complex ways. The interplay between work life and personal life, namely the work–family balance (WFB), has been a topic of general interest [1,2]. In particular, more attention has been paid to the link between work and family due to the COVID-19 pandemic [3]. Nonetheless, several questions remain unanswered or in need of further analysis. One is the interplay between the constructs that relate to how individuals manage their lives in different domains. Based on the work of Rothbard et al. [1], the present study examines work–life balance through two contradictory perspectives: enrichment and depletion [1,4].

The work–family relationship has been identified as one of the strongest antecedents of well-being in European countries [5]. Research has shown that when individuals find...
it difficult to reconcile these two domains, they show lower well-being, job satisfaction, and commitment (for a review, please see [6]). For instance, using a three-wave design with an 18-month time lag between the first and third waves, Neto et al. [7] observed that work–family conflict (WFC) predicted lower individual psychological well-being over time. As such, WFC can be conceived as being a threat to individuals’ well-being [8].

On the other hand, built on the self-determination theory [9], motivation drives individuals to differently experience roles in all domains of their lives. That said, different motivations may lead to different experiences that could be more enriching or depleting [1]. Thus, it could be fruitful to understand individuals’ motivations, in terms of both their levels and types, since motivations may help to explain how balance, conflict, or enrichment between work and personal life is perceived by individuals.

Therefore, the present study aims to analyze how each type of motivation conceptualized in self-determination theory (i.e., intrinsic motivation, identified regulation, introjected regulation, external regulation, and amotivation) relates to WFC, work–family enrichment (WFE), and WFB. In addition, the current study seeks to investigate the contribution of WFC and WFE to explain WFB.

This research presents both theoretical and practical implications. Firstly, to the best of our knowledge, no studies have empirically examined the relationships among workers’ motivations, WFC, WFE, and WFB integratively. As such, this study aims to contribute to the human resource management (HRM) and organizational behavior (OB) literature. Secondly, this study relies on self-determination theory (SDT) to analyze workers’ motivation. Since SDT is a macro theory of human motivation that is continuously developed based on the findings of several researchers from distinct areas (e.g., healthcare, education, and work) following the seminal work of Edward Deci and Richard Ryan, the current research has the potential to contribute to the SDT literature [10]. Moreover, SDT differentiates various types of motivation, each of which leads to different qualitative results concerning individuals’ attitudes, behavior, and well-being levels [11]. By taking into account the particularities of each type of motivation, the present study further contributes to the SDT literature by showing how each type of motivation relates to WFC, WFE, and WFB. Adding further relevance to the present research, this study empirically tests the relationships among WFC, WFE, and WLB. As Rothbard et al. [1] noted, work–life balance is a topic gaining much attention from researchers and practitioners. However, the way this construct is being conceptualized and measured varies. Based on the configurations of enrichment and depletion in shaping WFB outlined by Rothbard et al. [1], the current research has the potential to empirically show the contribution of WFC and WFE to the global perception of WLB. Moreover, the analysis of the relationships among workers’ motivations, WFC, WFE, and WFB may have practical implications for human resource (HR) management.

2. Theoretical Framework and Hypotheses

2.1. Workers’ Motivation: Application of the Self-Determination Theory

Motivation is a psychological process that results from an interface between individuals and the environment around them [12]. In this sense, self-determination theory (SDT) provides a multidimensional conceptualization that allows for assessing the level and quality of motivation [13]. In other words, SDT allows for evaluating how motivated individuals are (i.e., motivation level) and the orientation or “nature” of the motivation (i.e., motivation quality) [14]. Additionally, SDT provides a framework for understanding the factors that promote individuals’ motivation by analyzing the impact of extrinsic and intrinsic forces and responses to the satisfaction of basic psychological needs that affect individuals’ well-being [9].

SDT’s applications vary in multiple contexts such as healthcare [15], education [16], and work [17]. From an organizational point of view, research on the SDT framework has been related to a set of outcomes. Recently, Van den Broeck et al. [18] conducted a meta-analysis to assess how different types of motivations predicted employee well-being,
attitudes, and behaviors. The authors observed intrinsic motivation as being the most determinant variable in explaining workers’ outcomes, yet they observed identified regulation as playing a crucial role in explaining workers’ in-role and extra-role performance. In addition, controlled motivation (i.e., introjected regulation and external regulation) showed less favorable outcomes. Overall, this meta-analysis highlighted the importance of considering a wide range of motivations as predicted in SDT. As such, it is fundamental to briefly explain what each type of motivation consists of.

SDT expresses a motivational continuum that ranges from amotivation to intrinsic motivation. Here, we identify three forms of extrinsic motivation (external regulation, introjected regulation, and identified regulation) [19] where individuals act mainly under external regulation compared to an intrinsic one.

Amotivation refers to a lack of motivation; in this case, individuals do not value the activity or do not feel competent to perform a specific task. The first form of extrinsic motivation is where external regulations (i.e., social norms, rules, and values) are still non-internalized. As such, an individual who is extrinsically motivated performs a certain task to obtain the desired consequence (e.g., income) or to avoid consequences (e.g., unemployment). Following external regulation, introjected regulation refers to doing something to avoid negative emotions such as shame or guilt or to feel positive emotions such as pride. Thus, the individual is moved by his/her ego. Next, identified regulation means that individuals perform a certain activity because they relate it with their own values and meanings. Workers feel more of a sense of volition because they relate closely and identify with the nature of the task and the task itself. Finally, intrinsic motivation involves performing a task just because of its inherent satisfaction and enjoyment. It is characterized by the natural tendency individuals have to look for novelties and challenges. As such, when intrinsically motivated, individuals tend to exercise their capabilities, explore, and learn. Thus, it is not related to external contingencies [10].

These types of motivation vary in degree and in terms of which can be more or less internalized. Hence, Deci and Ryan [9] proposed two different forms of motivation based on their levels of internalization. On the one hand, controlled motivation is less internalized and more externally regulated, comprising external and introjected regulation. On the other hand, autonomous motivation is when individuals take part in an activity just because of the meaning and satisfaction they retrieve from engaging in the activity, being more internalized and comprising identified regulation and intrinsic motivation [9,19].

2.2. The Relationship between Workers’ Motivation and Work–Family Conflict

The WFC approach is based on the depletion perspective, which emerges from role strain theory [20] and emphasizes that individuals’ resources and energy are limited. Thus, when engaging in a certain activity, both resources and energy will be reduced for other activities. To manage these limited resources and energy, individuals make trade-offs between roles and activities because resources and energy will be less available for subsequent roles and activities [21,22], which may lead to negative outcomes such as lower levels of well-being. Based on this assumption, WFC [23] is described as a conflict in which the pressures of roles in the work and family domains are conflicting. Thus, the resources and energy used in one role will create barriers that may limit the position in the other, creating negative outcomes. WFC considers work and family to be somewhat incompatible because participation in multiple roles, sometimes with low quality, may decrease the relationship between work and family, leading to WFC.

Greenhaus and Beutell [23] presented three distinct types of conflicts. In time-based conflicts, the conflict results from the time required to perform one role interfering with the time required for another. The second conflict type is the pressure type, which asserts that the pressure from one domain affects other domains—for instance, an exhausting day at work causes irritability in the individual, which will probably lead to a lack of patience with his/her family when returning home. Finally, behavioral conflict refers to the incompatibility of behaviors expected by individuals when performing their roles. At
work, they are expected to present communication skills; however, they are expected to present active listening skills in personal life.

Considering the role of motivation in WFC, the findings of Senecal et al. [24] suggested that low scores of self-determined motivation may contribute to the experience of family alienation, which could lead to WFC. More recently, Hong et al. [25] suggested that internal motivation, defined as performing some activity because of its pleasure and meaning, thus mostly being associated with autonomous motivation, reduces WFC. On the other hand, a study performed by Séguin-Levésque et al. [26] showed that people with lower levels of internal motivation might experience interpersonal conflicts, such as difficulty in managing the work domain with other domains of the individual’s life. Kuvaa et al. [27] also found a positive connection between extrinsic motivation and WFC and a negative relationship between intrinsic motivation and WFC. Additionally, Melati and Rizkillah [28] observed a negative and significant relationship between intrinsic motivation and WFC and identified motivation and WFC.

Based on the previous research, we present the following hypotheses:

**Hypothesis 1 (H1).** Workers’ motivations have a significant relationship with work–family conflict.

**Hypothesis 1a (H1a).** Autonomous motivation (i.e., intrinsic motivation and identified regulation) has a negative relationship with work–family conflict.

**Hypothesis 1b (H1b).** Controlled motivation (i.e., introjected regulation and external regulation) has a positive relationship with work–family conflict.

**Hypothesis 1c (H1c).** Amotivation has a positive relationship with work–family conflict.

### 2.3. The Relationship between Workers’ Motivation and Work–Family Enrichment

Although WFC is based on role strain theory and the depletion perspective, WFE is built under the spectrum of the theory of role accumulation [29], which emphasizes that resources used in one domain can expand to other roles. For instance, in the work domain, individuals may have to use skills of self-control; these skills when transferred to the family domain may help with the conflict resolution that may occur in this domain. Thus, the relationship between different domains can be synergistic [1,30–32]. The theory of role accumulation [33] has four pillars concerning the effects of involvement in multiple roles. The first states that the performance of one role provides resources for the performance of another role; thus, the more roles the individual plays, the more resources he/she will have for him/herself. The second states that involvement in multiple roles equates to a higher level of security for the individual. This is explained as the individual’s general well-being depending on the set of roles he/she plays. Through these multiple roles, he/she can feel more support in risky situations when performing a role. The third pillar is related to the variety of resources provided to the individual by the roles. Those resources can guide a better performance when handling other roles. The fourth aspect refers to the individual benefits from the performance of multiple roles, in which the individual will increase his/her personal enrichment, making him/her more tolerant and flexible. Likewise, the enrichment perspective highlights that once individuals experience high-quality roles in one domain, they will increase the multiple resources used in the other domains of their lives. Consequently, the use of resources from one domain to another will provide more positive outcomes such as satisfaction.

Concerning the relationship between motivation and WFE, the literature is still scarce. However, recently Roche and Haar [34] investigated the mediating role of WFE in the relationship between the self/non-self-determined motivation and job satisfaction of leaders. To achieve the research goals, two independent samples were created: CEOs and non-CEO leaders. In addition, to better cover the bi-directionality of the work–family domains, the research covered WFE and FWE. Although the results varied within samples,
some connections were made, namely the positive influence of intrinsic, integrated, and identified motivation (which comprises autonomous motivation) on WFE and the negative influence of amotivation on WFE. The influence of controlled motivation on WFE was less visible. The specificity of the sample may have determined these results.

Considering (1) the results of previous research (e.g., [34]) and that (2) individuals feel a sense of volition and want to perform a task/role when their motivations are more self-determined (autonomous motivation) and, on the contrary, feel pressure to perform a task/role and are moved by more extrinsic motives when they are more non-self-determined (controlled motivation), we present the following hypotheses:

**Hypothesis 2 (H2).** Workers’ motivations have a significant relationship with work–family enrichment.

**Hypothesis 2a (H2a).** Autonomous motivation (i.e., intrinsic motivation and identified regulation) has a positive relationship with work–family enrichment.

**Hypothesis 2b (H2b).** Controlled motivation (i.e., introjected regulation and external regulation) has a negative relationship with work–family enrichment.

**Hypothesis 2c (H2c).** Amotivation has a negative relationship with work–family enrichment.

### 2.4. The Relationship between Workers’ Motivation and Work–Family Balance

In 2018, Casper et al. presented a meta-analytic review of work–non-work balance [2]. The authors highlighted that although WFC and WFE are clearly defined, there is less consensus regarding the concept of WFB. Rothbard et al. [1] stressed different theoretical approaches, such as whether it is a long-term perception, a state, or a relationship. The authors identified two major approaches to WFB. First, the combined spillover approach [35] emphasizes that the process that shapes WFB is based on the intercorrelations between individuals’ different roles in terms of conflict and enrichment, i.e., individuals transfer their experiences from one role to another. The second perspective is called the global approach [35], in which individuals’ perceptions of WFB depend on their work and life roles. It is closely associated with outcomes such as job satisfaction, performance, and well-being [1,2]. Considering both approaches to WFB, Rothbard et al. [1] summarized the major definitions of WFB, identifying whether they are related to the spillover or the global approach. The results reinforced the lack of consensus regarding its definition. Until the early 2000s, WFB was primarily associated with the lack of depletion; i.e., WFB exists when individuals experience low levels of depletion and conflict [1,36]. More recently, authors have defended that WFB was present when the experience in one role increased the enrichment of resources to apply in another role [1,4,31,37,38].

Moreover, some considered WFB to exist when enrichment was present [1,4] and others when individuals experienced high levels of enrichment and low levels of conflict [1,31]. In this sense, the perception of balance between work and family can vary according to each individual. How work and family roles fit together and the relative amount of resources and energy spent in each role may vary from person to person. Thus, WFB is achieved when individuals positively evaluate how they have allocated their resources and energy and have integrated and separated their responsibilities in all roles. The balance is a product that results from how an individual adjusts the environment to his/her personal preferences [22]. The present study uses a global measure of WFB [39] beyond measuring WFC [40] and WFE [41], as previously noted.

Regarding the relationship between motivation and WFB, to the best of our knowledge there are no empirical studies analyzing the relationship between these variables. However, Haar et al. [39] developed a daily diary study, which showed that the higher the satisfaction of basic psychological needs (i.e., autonomy, competence, and relatedness) as conceptualized in SDT, the better the WLB is. Since the satisfaction of basic psychological
needs contributes to increasing autonomous motivation [42], it could be hypothesized that autonomous motivation and WFB would be positively related as well. In addition, bearing in mind the findings observed between controlled motivation, amotivation, WFC, and WFE [27,34], it can also be hypothesized that there is a link between controlled motivation and amotivation with WFB. As such, we present the following hypotheses:

Hypothesis 3 (H3). Workers’ motivations have a significant relationship with work–family balance.

Hypothesis 3a (H3a). Autonomous motivation (i.e., intrinsic motivation and identified regulation) has a positive relationship with work–family balance.

Hypothesis 3b (H3b). Controlled motivation (i.e., introjected regulation and external regulation) has a negative relationship with work–family balance.

Hypothesis 3c (H3c). Amotivation has a negative relationship with work–family balance.

2.5. The Relationships among WFC, WFE, and WFB

As previous studies have indicated, there is an unclear definition of what encompasses work–nonwork balance [43]. However, despite the fact that individuals may have different life-domain roles they value (e.g., leisure time, friendship, family, education, parenthood, sport), which may contribute to a general evaluation of work–nonwork balance [43], the current study only focuses on WFB. WFB results from the individual’s perception of managing the balance and satisfaction with the balance between the work and family domains [44–46].

Even though WFC, WFE, and WFB are different constructs that have been studied separately, their connections still need further attention [2,47]. Rothbard et al. [1] theoretically proposed four configurations of enrichment and depletion that represent different levels of WFB. The authors based their proposal on the spillover approach, whereas WFB can be defined as the individual overall assessment of the extent to which work and life roles and experiences are broadly compatible, with minimal or temporary incompatibility [1,48]. Thus, the process of enrichment and depletion is expected to influence this general assessment of compatibility between roles [1] known as WFB. Rothbard et al. [1] also emphasized the peak–end theory, wherein individuals’ perception of an experience being pleasant/unpleasant is more based on the evaluation made during its meaningful point (peak or end) rather than the average evaluation of the overall experience (for further understanding of the peak–end rule see Kahneman et al. [49].

Consequently, assessment of WFB can be influenced by the most recent significant experiences of enrichment or depletion. In addition, the peak–end theory also suggests that long-term evaluation of WFB may be influenced by recent and meaningful episodes of enrichment and depletion. These experiences may disproportionately contribute to WFB. Thus, WFB is more than the sum of episodes of enrichment and depletion.

The delayed gratification theory (Mischel 1974, cit. [1]) also contributes to the temporary approach to WFB. Individuals can experience short-term depletion episodes if they believe that such moments will ultimately lead to long-term enrichment. Thus, long-term enrichment may help individuals manage short-term depletion episodes.

Taking into account that enrichment (WFE) and depletion (WFC) episodes can co-occur, shaping WFB in the short and long term, Rothbard et al. [1] suggested four different configurations. The first configuration comprises high levels of enrichment and depletion and represents WFB. Secondly, high levels of enrichment and low levels of depletion represent flourishing, known as the higher level of WFB, where individuals experience positive inter-role relationships and a higher level of well-being [50]. The third configuration consists of low levels of enrichment and high levels of depletion, which represents no WFB. Finally, the fourth configuration comprises low levels of enrichment and depletion. In this particular case, individuals experience minimal WFB.
Haar et al. [39] developed a daily diary study relating, firstly, family–work conflict and enrichment with well-being (both engagement and burnout) through job resources such as the psychological needs of autonomy, competence, and relatedness. Secondly, the authors focused on the mediating role of WFC and WFE in the relationship between those job outcomes and WFB. Therefore, the authors established and confirmed the influence of WFC and WFE on WFB perceptions. Thus, we propose the following hypotheses:

**Hypothesis 4 (H4).** Work–family conflict relates negatively to work–family balance.

**Hypothesis 5 (H5).** Work–family enrichment relates positively to work–family balance.

### 2.6. Additional Tests

In addition to our hypotheses, we tested the mediating role of WFC and WFE in the relationship between each type of motivation and WFB. To the best of our knowledge, no studies have been published to analyze whether WFC and WFE play a decisive role in helping to explain the relationship between the different types of motivation and the perception of WFB. Despite the lack of research on these specific relations, we believe that adding this additional test will significantly contribute to this research area. Moreover, as Mathieu and Taylor [51] advanced, “one might test a mediational model on the basis of the theoretical ordering of variables” (p. 1035).

Following on the theoretical framework and the results of previous studies, we may posit that the different types of motivation may contribute to WFC and WFE perceptions (e.g., [25,28,34]), which in turn influence WFB perceptions (e.g., [39]). As such, WFC and WFE can be seen as processes that contribute to explaining the relationship between the different types of motivation and the perception of WFB.

### 3. Materials and Methods

#### 3.1. Study Design

The current research has an empirical quantitative design and employs descriptive and correlational analyses of the data. The data were obtained through an online survey in June 2021. The research sample was obtained using a convenience method and is therefore not probabilistic [52].

#### 3.2. Participants

The sample comprised 273 individuals working in Portugal, mainly women (64.7%), aged between 18 and 66 years (M = 38.40, SD = 12.23). Most of the participants possessed a bachelor’s degree (52.4%) or had completed a higher level of education (24.5%). Most of the participants were married (47.6%) or single (39.9%). The sample included both participants without children (50.9%) and participants who had children (48.7%). Additionally, the majority of participants were employed in the services sector (86%), and most had a permanent contract (65.9%) with a job tenure between 1 and 2 years (16.8%), between 3 and 5 years (15.8%), or between 21 years and 30 years (21.0%). The majority of the participants (60.3%) had not performed telework. Since the data were collected during the COVID-19 pandemic, the participants were asked to rate three questions on a 10-point Likert scale from 0 (“nothing impactful”) to 10 (“totally impactful”). The first question was: “On a 10-point scale, score the impact COVID-19 has had on getting your work done”. The second question was: “On a 10-point scale, score the impact COVID-19 has had on your personal life”. The third question was: “On a 10-point scale, rate the impact COVID-19 has had on the satisfaction with the company you work for”. Half the sample gave a score higher than 7, 8, and 6, in the first, second, and third questions, respectively. Thus, overall, the participants perceived COVID-19 as having had an impact on their work, personal life, and satisfaction with the company they work for.
3.3. Variables and Instruments

The study variables and their associated measures are outlined below.

Workers’ Motivation: To assess workers’ motivation, we used the Multidimensional Work Motivation Scale of Gagné et al. (2015) [19] (see Appendix A). This scale, headed by the phrase “Why do you or would you put efforts into your current job?”, is composed of 19 items, grouped into six factors that measure intrinsic motivation (“Because I have fun doing my job”); identified regulation (“Because putting efforts in this job aligns with my personal values”); introjected regulation (“Because it makes me feel proud of myself”); external regulation—material (“Because I risk losing my job if I don’t put enough effort in it”); external regulation—social (“To get others’ approval (e.g., supervisor, colleagues, family, clients . . . )”); and amotivation (“I don’t know why I’m doing this job, it’s pointless work”). All factors have three items apart from introjected regulation, which has four items. This study was based on the motivation continuum, from autonomous motivation (intrinsic motivation and identified regulation) to controlled motivation (introjected motivation and external regulation) and amotivation [10]. The response format was a Likert scale from 1 to 7, with 1 corresponding to “not at all” and 7 corresponding to “completely”. High scores for one of the six motivational factors indicate that the worker’s reasons to put effort into the current job are better reflected by this factor.

Work–Family Conflict: To measure WFC, we used the Portuguese version of a 15-item scale proposed by Carlson, Kacmar and Williams [40]. Example items included “After work I am too tired when I come home to do some of the things I’d like to do” and “My job takes time from me that I would like to spend with my family/friends.” The items were answered on a 5-point rating scale that ranged from “almost never” (1) to “almost always” (5); higher scores indicate greater interference with family.

Work–Family Enrichment: We measured WFE using the Portuguese version of a 9-item scale proposed by Carlson, Kacmar, Wayne and Grzywacz [41]. Example items included “My involvement with my work helps me to understand different viewpoints, and this helps me be a better family member” and “My involvement in my work helps me to develop my skills, and this helps me to be a better family member”. The items were answered on a 5-point rating scale ranging from “totally disagree” (1) to “totally agree” (5); higher scores indicate greater WFE.

Work–Family Balance: WLB was measured using a 3-item measure developed by Haar [39]. The items were as follows: “I manage to balance the demands of my work and personal/family life well”; “I am satisfied with my WLB, enjoying both roles”; and “Nowadays, I seem to enjoy every part of my life equally well”. All items were rated on a 5-point rating scale from “strongly disagree” (1) to “strongly agree” (5) and higher scores indicate greater WFB.

Control Variables: Concerning the inclusion of control variables, earlier research has indicated that demographic variables such as gender, age, educational level, and tenure could be related to workers’ motivation [17,53]. In addition, prior studies also suggested that marital status and having/not having children may influence the work–family relationship [54]. Moreover, among the new challenges created in the work domain by the COVID-19 pandemic was that several individuals experienced telework for the first time while other individuals remained in the workplace [55,56], so telework and three questions related to the COVID-19 pandemic experience were added as control variables (see Table 1).
Table 1. Descriptive statistics and reliability analysis.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Range</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Cronbach Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intrinsic Motivation</td>
<td>1–7</td>
<td>4.84</td>
<td>1.47</td>
<td>0.92</td>
</tr>
<tr>
<td>Identified Regulation</td>
<td>1–7</td>
<td>5.42</td>
<td>1.32</td>
<td>0.83</td>
</tr>
<tr>
<td>Introjected Regulation</td>
<td>1–7</td>
<td>4.91</td>
<td>1.34</td>
<td>0.74</td>
</tr>
<tr>
<td>External Regulation—Material</td>
<td>1–7</td>
<td>3.30</td>
<td>1.47</td>
<td>0.70</td>
</tr>
<tr>
<td>External Regulation—Social</td>
<td>1–7</td>
<td>2.81</td>
<td>1.30</td>
<td>0.71</td>
</tr>
<tr>
<td>Amotivation</td>
<td>1–7</td>
<td>2.14</td>
<td>1.27</td>
<td>0.80</td>
</tr>
<tr>
<td>WFC</td>
<td>1–5</td>
<td>2.55</td>
<td>0.85</td>
<td>0.95</td>
</tr>
<tr>
<td>WFE</td>
<td>1–5</td>
<td>3.47</td>
<td>0.76</td>
<td>0.93</td>
</tr>
<tr>
<td>WFB</td>
<td>1–5</td>
<td>3.36</td>
<td>0.99</td>
<td>0.91</td>
</tr>
</tbody>
</table>

Note. WFC = work–family conflict; WFE = work–family enrichment; WFB = work–family balance.

3.4. Procedure

The questionnaire was made available on the Qualtrics platform to collect participants’ questionnaire responses. The average completion time of the form was approximately 15 min. The participants declared their agreement through an informed consent form. The anonymity of the respondent’s answers and the opportunity to receive feedback were assured. We did not include any incentive (cash or otherwise) for participating in this project.

3.5. Data Analysis

The analysis consisted of three steps. First, using the AMOS 26.0 program, we conducted a confirmatory factor analysis (CFA) that aimed to test the measurement model and compare it with other alternative models. For this first step, we followed the two-step approach recommended by Anderson and Gerbing [57]. By performing a CFA, we explored the extent to which the different variables were empirically different [57]. The control variables were not included in the CFA. Second, with the SPSS 26.0 program, we calculated descriptive statistics (means and standard deviations) and performed a reliability analysis to evaluate the internal consistency of the items making up the study measures (Cronbach’s alpha). Third, intercorrelations among the variables in the study were calculated with the SPSS 26.0 program. Finally, to test the hypotheses, we used model 4 of the PROCESS macro developed by Hayes [58], which utilizes the bootstrapping method to calculate the mediation effect. We utilized a bootstrap approach (using 5000 bootstrap samples) to calculate 95% bias-corrected bootstrap confidence intervals (CIs) of standardized indirect effects.

4. Results

4.1. Confirmatory Factor Analysis and Model Fit Diagnostics

The theoretical model with nine factors (i.e., intrinsic motivation, identified regulation, introjected regulation, external regulation—material, external regulation—social, amotivation, WFC, WFE, and WFB) obtained an acceptable fit to the data ($\chi^2(947) = 1881.78$, $p < 0.01$, CFI = 0.90; IFI = 0.90; RMSEA = 0.06). We compared this model with the single-factor model, in which all items were loaded on a single latent variable, which obtained a poor fit ($\chi^2(983) = 5529.32$, $p < 0.01$, CFI = 0.51; IFI = 0.52; RMSEA = 0.13) that was significantly lower than that of the theoretical model ($\Delta \chi^2(36) = 3647.54$, $p < 0.01$). We further tested an alternative model with all six factors of motivation grouped as only one latent factor and each of the other analyzed variables considered a latent factor ($\chi^2(977) = 2780.66$, $p < 0.01$, CFI = 0.81; IFI = 0.81; RMSEA = 0.08). This model also showed a poor fit to the data that was significantly lower than that of the measurement model ($\Delta \chi^2(30) = 898.88$, $p < 0.01$). Then, we tested another alternative model, namely a five-factor model, in which intrinsic motivation and identified regulation were grouped as one latent factor (autonomous motivation) and introjected and external regulations—social and material—(controlled motivation) were grouped as only one factor. The other analyzed variables each remained a latent factor. The five-factor model also showed a poor fit to the data ($\chi^2(973) = 2704.41$, $p < 0.01$,
CFI = 0.81; IFI = 0.82; RMSEA = 0.08), significantly worse compared to the measurement model ($\Delta \chi^2 (26) = 822.41, p < 0.01$). Finally, a seven-factor model was tested. This model included all six factors of motivations analyzed as being only one factor, and WFC, WFE, and WFB were grouped to compose only one factor. The seven-factor model showed a poor fit to the data ($\chi^2 (962) = 3350.11, p < 0.01$, CFI = 0.74; IFI = 0.75; RMSEA = 0.10), significantly worse compared to that of the measurement model ($\Delta \chi^2 (15) = 1468.33, p < 0.01$). These analyses revealed that the factor structures of the research variables were consistent with the conceptual model and that the manifest variables loaded, as intended, on the latent variables.

4.2. Reliability Analysis and Descriptive Statistics

The reliability analysis (Table 1) showed that most factors had a Cronbach’s alpha value equal to or greater than 0.70 [59]. The means and standard deviations of the studied variables are displayed in Table 1. We observed higher average scores for intrinsic motivation (M = 4.84; SD = 1.47), identified regulation (M = 5.42; SD = 1.32), and introjected regulation (M = 4.91; SD = 1.34) than for external regulation—material (M = 3.30; SD = 1.47), external regulation—social (M = 2.81; 1.30), and amotivation (M = 2.14; SD = 1.27; considering a seven-point Likert scale). These findings suggest that intrinsic motivation, identified regulation, and introjected regulation seem to be the most likely reasons why the participants put or would put effort into their current job. The mean values obtained for WFC (M = 2.55; SD = 0.85), WFE (M = 3.47; SD = 0.76), and WFB (M = 3.36; SD = 0.99; considering a five-point Likert scale) suggested that employees perceived a neutral level of WFC and reported feeling some WFE and WFB.

4.3. Bivariate Correlations

The output of the correlational analysis is presented in Table 2. Overall, the relationships among the studied variables were all significant and in the expected direction. In addition, the control variables contributed significantly to explaining variance (see Table 2). Gender correlated positively with WFC (r = 0.22, p < 0.01) and negatively with WFB (r = −0.15, p < 0.05), indicating that women were more likely to perceive greater WFC and lower WFB. Age correlated negatively with external regulation—material (r = −0.21; p < 0.01) and positively with WFC (r = 0.16, p < 0.05), suggesting that the older the participants were, the lower the level of external regulation—material was and the higher the level of WFC was. Marital status correlated positively with identified regulation (r = 0.17, p < 0.05), intrinsic motivation (r = 0.12, p < 0.05), and WFC (r = 0.15, p < 0.05), which may suggest single individuals as being the ones who report the lower scores on these variables. Having children also seemed to contribute to participants reporting lower external regulation—material (r = −0.13, p < 0.05) but higher identified regulation (r = 0.13, p < 0.05), intrinsic motivation (r = 0.16, p < 0.05), and WFC (r = 0.13, p < 0.05). Longer organizational tenure also seemed to contribute to higher amotivation (r = 0.15, p < 0.05) but lower external regulation—material (r = −0.24, p < 0.01) and higher WFC (r = 0.17, p < 0.01). Furthermore, the individuals who scored higher concerning the perceived impact of COVID-19 on getting their work done seemed to report lower external regulation—material (r = −0.12, p < 0.05) but higher identified regulation (r = 0.13, p < 0.05) and higher WFC (r = 0.21, p < 0.01). The individuals who scored higher concerning the perceived impact of COVID-19 on personal life seemed to present higher WFC (r = 0.17, p < 0.01) and lower WFB (r = −0.20, p < 0.01). Finally, the participants in telework seemed to report lower amotivation as compared with individuals who did not perform telework (r = −0.13, p < 0.05).
Table 2. Bivariate correlations.

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<td>2. Age</td>
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<td>6. Tenure</td>
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<td>0.73 **</td>
<td>0.46 **</td>
<td>0.48 **</td>
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<td>7. COVID-19 1Q</td>
<td>0.24 **</td>
<td>0.21 **</td>
<td>0.12 *</td>
<td>0.19 **</td>
<td>0.06</td>
<td>0.22 **</td>
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<td>8. COVID-19 2Q</td>
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<td>−0.07</td>
<td>−0.05</td>
<td>−0.03</td>
<td>−0.07</td>
<td>−0.02</td>
<td>0.35 **</td>
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<tr>
<td>9. COVID-19 3Q</td>
<td>0.13 *</td>
<td>0.01</td>
<td>−0.04</td>
<td>0.04</td>
<td>−0.05</td>
<td>0.10</td>
<td>0.33 **</td>
<td>0.13 *</td>
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<td>−0.14 *</td>
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<td>0.00</td>
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<td>12. External Social</td>
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<td>−0.04</td>
<td>0.43 **</td>
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<td>13. External Material</td>
<td>−0.05</td>
<td>−0.21 **</td>
<td>−0.09</td>
<td>−0.13 *</td>
<td>0.02</td>
<td>−0.24 **</td>
<td>−0.12 *</td>
<td>0.00</td>
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<td>0.21 **</td>
<td>0.56 **</td>
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<td>14. Introjected</td>
<td>0.10</td>
<td>0.03</td>
<td>0.10</td>
<td>0.05</td>
<td>0.01</td>
<td>0.03</td>
<td>0.07</td>
<td>0.04</td>
<td>0.07</td>
<td>0.06</td>
<td>−0.17 **</td>
<td>0.23 **</td>
<td>0.25 **</td>
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<td>15. Identified</td>
<td>0.09</td>
<td>0.11</td>
<td>0.17 **</td>
<td>0.13 *</td>
<td>0.01</td>
<td>0.08</td>
<td>0.13 *</td>
<td>0.01</td>
<td>0.08</td>
<td>0.12</td>
<td>−0.39 **</td>
<td>−0.10</td>
<td>−0.02</td>
<td>0.70 **</td>
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<td>16. Intrinsic</td>
<td>0.03</td>
<td>0.07</td>
<td>0.12 *</td>
<td>0.16 **</td>
<td>−0.04</td>
<td>0.03</td>
<td>0.08</td>
<td>0.02</td>
<td>0.11</td>
<td>0.10</td>
<td>−0.53 **</td>
<td>−0.19 **</td>
<td>−0.11</td>
<td>0.49 **</td>
<td>0.72 **</td>
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<td>17. WFC</td>
<td>0.22 **</td>
<td>0.16 *</td>
<td>0.15 *</td>
<td>0.13 *</td>
<td>0.07</td>
<td>0.17 **</td>
<td>0.21 **</td>
<td>0.17 **</td>
<td>0.09</td>
<td>−0.02</td>
<td>0.36 **</td>
<td>0.27 **</td>
<td>0.152 **</td>
<td>0.08</td>
<td>−0.08</td>
<td>−0.21 **</td>
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<td>18. WFE</td>
<td>−0.04</td>
<td>−0.07</td>
<td>0.01</td>
<td>0.01</td>
<td>−0.09</td>
<td>−0.08</td>
<td>0.05</td>
<td>0.01</td>
<td>0.01</td>
<td>0.02</td>
<td>−0.48 **</td>
<td>−0.20 **</td>
<td>−0.09</td>
<td>0.30 **</td>
<td>0.48 **</td>
<td>0.59 **</td>
<td>−0.39 **</td>
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<tr>
<td>19. WFB</td>
<td>−0.15 *</td>
<td>−0.01</td>
<td>−0.04</td>
<td>0.01</td>
<td>−0.05</td>
<td>−0.04</td>
<td>−0.14 *</td>
<td>−0.20 **</td>
<td>−0.06</td>
<td>0.03</td>
<td>−0.33 **</td>
<td>−0.24 **</td>
<td>−0.17 **</td>
<td>0.16 **</td>
<td>0.26 **</td>
<td>0.31 **</td>
<td>−0.64 **</td>
<td>0.45 **</td>
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</tr>
</tbody>
</table>

Note. * p < 0.05; ** p < 0.001; gender (0 = men; 1 = women); marital status (1 = not married, 2 = married or in a relationship, 3 = widower, 4 = divorced, separate); children (0 = no; 1 = yes); COVID-19 1Q: “On a 10-point scale, score the impact COVID-19 has had on getting your work done”; COVID-19 2Q: “On a 10-point scale, score the impact COVID-19 has had on your personal life”; COVID-19 3Q: “On a 10-point scale, rate the impact COVID-19 has had on your satisfaction with the company you work for”; telework (0 = no; 1 = yes); WFC = work–family conflict; WFE = work–family enrichment; WFB = work–family balance.
4.4. Regression Analysis with Testing Hypotheses

Following the descriptive analysis and correlation results, we were able to obtain a broad idea of the pattern of the relationships among all the dimensions. Using the PROCESS macro in SPSS IBM Statistics 26.0 software, it was possible to complete a regression analysis and test the hypotheses.

Concerning the relationship between intrinsic motivation and WFC and the relationship between identified regulation and WFC, only intrinsic motivation was negatively and significantly related to WFC (B = −0.12, p < 0.01; see Table 3); therefore, H1a was only partially supported. Furthermore, with regard to H1b, only external regulation—material and external regulation—social were supported. Concerning H3b, contrary to our expectations, introjected regulation was only partially supported by the data. Concerning the relationship between amotivation and WFC (B = 0.24, p < 0.01), Thus, H1c was supported by the data.

Table 3. Estimates for direct effects.

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Direct Effect</th>
<th>Estimate; [95 percent CI]</th>
<th>Standard Error (SE)</th>
<th>p-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1a partially supported</td>
<td>Intrinsic motivation → WFC</td>
<td>−0.12 [−0.19; −0.05]</td>
<td>0.03</td>
<td>0.00</td>
</tr>
<tr>
<td>H2a supported</td>
<td>Intrinsic motivation → WFE</td>
<td>0.30 [0.25; 0.35]</td>
<td>0.03</td>
<td>0.00</td>
</tr>
<tr>
<td>H3a supported</td>
<td>Intrinsic motivation → WFB</td>
<td>0.21 [0.13; 0.29]</td>
<td>0.04</td>
<td>0.00</td>
</tr>
<tr>
<td>H1a partially supported</td>
<td>Identified regulation → WFC</td>
<td>−0.05 [−0.13; 0.03]</td>
<td>0.04</td>
<td>0.20</td>
</tr>
<tr>
<td>H2a supported</td>
<td>Identified regulation → WFE</td>
<td>0.27 [0.21; 0.33]</td>
<td>0.03</td>
<td>0.00</td>
</tr>
<tr>
<td>H3a supported</td>
<td>Identified regulation → WFB</td>
<td>0.19 [0.10; 0.28]</td>
<td>0.04</td>
<td>0.00</td>
</tr>
<tr>
<td>H1b partially supported</td>
<td>Introjected regulation → WFC</td>
<td>0.05 [−0.02; 0.13]</td>
<td>0.04</td>
<td>0.18</td>
</tr>
<tr>
<td>H2b partially supported</td>
<td>Introjected regulation → WFE</td>
<td>0.17 [0.10; 0.23]</td>
<td>0.03</td>
<td>0.00</td>
</tr>
<tr>
<td>H3b partially supported</td>
<td>Introjected regulation → WFB</td>
<td>0.12 [0.03; 0.21]</td>
<td>0.04</td>
<td>0.01</td>
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<tr>
<td>H1b partially supported</td>
<td>External regulation—material → WFC</td>
<td>0.09 [0.02; 0.16]</td>
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<tr>
<td>H2b partially supported</td>
<td>External regulation—material → WFE</td>
<td>−0.04 [−0.11; 0.02]</td>
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<td>0.16</td>
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<tr>
<td>H3b partially supported</td>
<td>External regulation—material → WFB</td>
<td>−0.12 [−0.20; −0.04]</td>
<td>0.04</td>
<td>0.00</td>
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<tr>
<td>H1b partially supported</td>
<td>External regulation—social → WFC</td>
<td>0.17 [0.10; 0.25]</td>
<td>0.04</td>
<td>0.00</td>
</tr>
<tr>
<td>H2b partially supported</td>
<td>External regulation—social → WFE</td>
<td>−0.12 [−0.18; −0.05]</td>
<td>0.03</td>
<td>0.00</td>
</tr>
<tr>
<td>H3b partially supported</td>
<td>External regulation—social → WFB</td>
<td>−0.18 [−0.27; −0.09]</td>
<td>0.04</td>
<td>0.00</td>
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<tr>
<td>H1c supported</td>
<td>Amotivation → WFC</td>
<td>0.24 [0.17; 0.32]</td>
<td>0.04</td>
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<tr>
<td>H2c supported</td>
<td>Amotivation → WFE</td>
<td>−0.29 [−0.35; −0.23]</td>
<td>0.03</td>
<td>0.00</td>
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<td>H3c supported</td>
<td>Amotivation → WFB</td>
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<td>0.00</td>
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<td>H4 supported</td>
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<td>0.00</td>
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<td>H5 supported</td>
<td>WFE → WFB</td>
<td>0.24 [0.09; 0.39]</td>
<td>0.08</td>
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Note. WFC = work–family conflict; WFE = work–family enrichment; WFB = work–family balance.

As expected, both intrinsic motivation and identified regulation were positively related to WFE (B = 0.30, p < 0.01 and B = 0.27, p < 0.01, respectively; see Table 3), which supports H2a. However, contrary to our expectations, introjected regulation presented a positive relationship with WFE (B = 0.17, p < 0.01). In addition, concerning external regulation—material and external regulation—social, only external regulation—social showed a significant and negative relationship with WFE (B = −0.10, p < 0.01). Thus, H2b was only partially supported by the data. Concerning the relationship between amotivation and WFE, a negative relationship was observed (B = −0.26, p < 0.01). Thus, H2c was supported.

As for H3a, the relationship between intrinsic motivation and WFB was found to be positive and significant (B = 0.21, p < 0.01), and the relationship between identified regulation and WFB was both positive and significant (B = 0.19, p < 0.01). Thus, H3a was supported. Concerning H3b, contrary to our expectations, introjected regulation was positively and significantly related to WFB (B = 0.19, p < 0.01). However, as predicted, the relationship between external regulation—material and WFB (B = −0.12, p < 0.01) and the relationship between external regulation—social and WFB (B = −0.18, p < 0.01) were both negative and significant. Thus, H3b was partially supported. As for H3c, amotivation and WFB were found to be negatively and significantly related (B = −0.21, p < 0.01). Thus, H3c was supported.
Hypothesis 4 and Hypothesis 5 focused on the relationship between WFC and WFB and the relationship between WFE and WFB, respectively. WFC showed a negative relationship with WFB ($B = -0.63$, $p < 0.01$), and WFE showed a positive relationship with WFB ($B = 0.24$, $p < 0.01$; see Table 3), which supports H4 and H5, respectively.

Finally, since the direct relationships between the six factors of motivation and WFB were all significant (see Table 3), we further inspected the mediating role of WFC and WFE in explaining the relationship between the six factors of motivation and WFB (see Table 4). Overall, the indirect effects were significant, which suggests that WFC and WFE are mediators that contribute to explaining the relationship between workers’ motivations and WFB. The only non-significant indirect effects found were as follows: (1) that of identified regulation on WFB through WFC, (2) that of introjected regulation on WFB through WFC, and (3) that of external regulation—material on WFB through WFE.

Table 4. Estimates for indirect effects.

<table>
<thead>
<tr>
<th>Indirect Effect</th>
<th>Estimate; [95 percent CI]</th>
<th>Standard Error (SE)</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intrinsic motivation → WFC → WFB</td>
<td>0.08 [0.03; 0.13]</td>
<td>0.02</td>
<td>Significant indirect effect</td>
</tr>
<tr>
<td>Intrinsic motivation → WFE → WFB</td>
<td>0.07 [0.02; 0.13]</td>
<td>0.03</td>
<td>Significant indirect effect</td>
</tr>
<tr>
<td>Identified regulation → WFC → WFB</td>
<td>0.03 [0.02; 0.09]</td>
<td>0.03</td>
<td>Non-significant indirect effect</td>
</tr>
<tr>
<td>Identified regulation → WFE → WFB</td>
<td>0.06 [0.02; 0.11]</td>
<td>0.02</td>
<td>Non-significant indirect effect</td>
</tr>
<tr>
<td>Introjected regulation → WFC → WFB</td>
<td>-0.03 [-0.09; 0.02]</td>
<td>0.03</td>
<td>Non-significant indirect effect</td>
</tr>
<tr>
<td>Introjected regulation → WFE → WFB</td>
<td>0.04 [0.01; 0.07]</td>
<td>0.02</td>
<td>Significant indirect effect</td>
</tr>
<tr>
<td>External regulation—material → WFC → WFB</td>
<td>-0.05 [-0.10; -0.01]</td>
<td>0.02</td>
<td>Significant indirect effect</td>
</tr>
<tr>
<td>External regulation—material → WFE → WFB</td>
<td>-0.01 [-0.04; 0.01]</td>
<td>0.01</td>
<td>Non-significant indirect effect</td>
</tr>
<tr>
<td>External regulation—social → WFC → WFB</td>
<td>-0.11 [-0.16; -0.06]</td>
<td>0.03</td>
<td>Significant indirect effect</td>
</tr>
<tr>
<td>External regulation—social → WFE → WFB</td>
<td>-0.04 [-0.07; -0.01]</td>
<td>0.01</td>
<td>Significant indirect effect</td>
</tr>
<tr>
<td>Amotivation → WFC → WFB</td>
<td>-0.15 [-0.22; -0.10]</td>
<td>0.03</td>
<td>Significant indirect effect</td>
</tr>
<tr>
<td>Amotivation → WFE → WFB</td>
<td>-0.09 [-0.13; -0.04]</td>
<td>0.02</td>
<td>Significant indirect effect</td>
</tr>
</tbody>
</table>

Note. WFC = work–family conflict; WFE = work–family enrichment; WFB = work–family balance.

5. Discussion

Given the lack of research associating workers’ motivations, WFC, WFE, and WFB, the aim of this research was to fill this gap in the literature. Moreover, this study relied on SDT to analyze workers’ motivations and therefore contributed to the body of studies using this theoretical background. In addition, following the work of Rothbard et al. [1], this research contributed to empirically testing the distinctiveness of the constructs of WFC, WFE, and WFB.

Starting with COVID-19 questions, we highlighted the influence of the COVID-19 pandemic that impacted different domains of individuals’ lives. Our results are in line with Beck and Hensher [60] and Hitka et al. [61], confirming the influence of COVID-19 on both teleworking and individuals’ motivations, respectively.

Concerning the relationship between workers’ motivations and WFC, as expected, intrinsic motivation (e.g., exerting effort on the job because it is fun doing it) seemed to contribute to decreasing the perception of WFC. On the other hand, external regulation (material and social), which consists of exerting effort on the job to avoid or to obtain consequences (e.g., income), seemed to contribute to increasing the individuals’ perception of WFC. In the same way, amotivation (i.e., a lack of intention to exert effort in the job) also showed a positive relationship with WFC. However, contrary to our expectations, both identified regulation and introjected regulation were not significantly related to WFC in the present study. Indeed, the recent meta-analysis conducted by Van den Broeck et al. [18] showed intrinsic motivation as being the most determinant motivation type in explaining positive attitudes and behaviors as well as higher individual well-being. In addition, external regulation was also observed as contributing to less favorable outcomes (e.g., burnout and absenteeism). Furthermore, the findings of Senecal et al. [24] suggest that non-self-determined motivations may contribute to an experience of family alienation. As a result, individuals with higher amotivation and external regulation in their job may experience higher WFC. To strengthen this argument, future studies should analyze workers’
motivations based on SDT, family motivation [62], and WFC in the same conceptual model to observe the pattern of relationships among these variables.

The results of this study also revealed that autonomous motivation (i.e., intrinsic and identified motivation) relates positively to WFE. On the other hand, both external regulation (social and material) and amotivation are related negatively to WFE. These results are in line with those suggested by SDT [53]. However, curiously, contrary to our expectations, this research revealed a positive relationship between introjected regulation and WFE. This finding suggests that exerting effort at work due to egotistical reasons, including avoiding negative emotions (e.g., shame) or feeling positive emotions (e.g., pride), contributes to a higher perception of WFE. As such, although introjected regulation represents a less self-determined reason for exerting effort in the job, it seems it may make as positive a contribution to WFE as identified regulation and intrinsic motivation (i.e., autonomous motivation) do. In fact, pride, an example of positive emotion included in introjected regulation, is considered a basic human motivation spontaneously displayed by individuals when having pride experiences [63]. For instance, teachers may find their work meaningful because of their contribution to students’ performance. This sense of having a meaningful job may contribute to their spontaneous sense of pride concerning their work, underlying an autonomous nature of motivation. In addition, ego-related reasons are also related to the individual’s self-concept, such as the self-concept of being able to face life adversities, which also includes a process of internalization [64]. As such, by contributing somehow to the satisfaction of basic psychological needs of autonomy, competence, and relatedness, the characteristics of introjected regulation may contribute to increasing WFE. However, the relationship between introjected regulation and WFE was weaker compared to what was observed between the two types of autonomous motivation and WFE. As such, although introjected motivation may also contribute to the satisfaction of basic psychological needs, this contribution can be to a lower extent when compared with the two types of autonomous motivation (i.e., intrinsic motivation and identified motivation). As well, the relationship between introjected motivation and WFE can be weaker when compared to the relationship between autonomous motivation and WFE. Future studies should replicate the analysis of these relationships to see if the same pattern of results is obtained.

Overall, the hypothesis that workers’ motivations would be significantly related to WLB was supported. More precisely, intrinsic motivation and identified regulation (i.e., autonomous motivation) were positively related to WFB. Additionally, both external regulation (social and material) and amotivation were negatively related to WFB. Once again, these findings seem to be in line with what is predicted by SDT [65]. Thus, positive results from individuals could be expected both when individuals behave due to a genuine satisfaction from exerting effort in their job or when the individuals fully internalize the external reasons to exert effort in their job (i.e., putting effort into the job aligns with the individuals’ values). By contrast, when individuals exert effort in their job because they feel pressure and control that arises from forces perceived to be external to the self, they are more likely to experience less-positive results, such as lower WLB. However, contrary to our expectations, introjected regulation seems to be positively related to WFB. Thus, introjected regulation seems to contribute to increasing not only WFE, as previously noted, but also WFB. As also previously noted, this result could be due to the internalization process resulting in the individual’s self-concept [64]. However, once again, it should be noted that the relationship between introjected regulation and WFB was weaker than the relationship between identified regulation and intrinsic motivation and WFB.

Regarding the relationships among WFC, WFE, and WFB, the findings were in line with expectations. In line with the observation of Haar et al. [66], the higher the WFC was, the lower the WFB, and the higher the WFE, the higher the WFB. To broaden the findings of the current research, future studies could analyze other variables that may contribute to WFB, such as personal (e.g., proactive health behaviors), and work and family resources (e.g., work and family support); for instance, see the work of Wayne et al. [67].
Concerning the mediation analyses, where the indirect effects of the different types of motivation on WFB through WFC and WFE were tested, we generally observed significant indirect effects. As such, the current findings shed a light on the importance of WFC and WFE in explaining the relationship between workers’ motivations and WFB. Therefore, as predicted in the literature, the different types of workers’ motivations will contribute to WFC and WFE perceptions (e.g., [25,28,34]). In turn, in line with the suggestion by Rothbard et al. [1], WFC and WFE perceptions will contribute to shaping the individuals’ perception of WFB. However, WFC seems to have a stronger contribution to WFB than WFE, since the strength of the relationship between WFE and WFB was weaker. Future studies should continue analyzing the relationships among these variables and include other variables that may contribute to explaining WFB [46].

5.1. Limitations and Future Research

Although this research offers theoretical and practical implications, certain limitations need to be discussed. First, the current research employed cross-sectional data; therefore, causality cannot be established. However, as Spector [68] emphasized, “there seems to be a universal condemnation of the cross-sectional design and at the same time acceptance of the superiority of the longitudinal design in allowing conclusions about temporal precedence and even causality. Often overlooked is that the cross-sectional design can tell us much that is of value and that the longitudinal design is not necessarily superior in providing evidence for causation” (p. 125). Thus, we suggest that in the future longitudinal data could be used to overcome this difficulty. Second, this study used only self-reported measures, which may raise common method bias concerns. However, since all the variables refer to the individual’s personal experiences and perceptions, the self-reported measures seemed to be adequate for the main research goals. Additionally, the methodological recommendations proposed by Podsakoff et al. (2003) [69] were followed. More precisely, we conducted a confirmatory factor analysis and also guaranteed the anonymity and confidentiality of the answers. In addition, in the beginning of the questionnaire, it was stated to the participants that there were no right or wrong answers. Third, our sample was collected from only one country (Portugal). Thus, we recommend that future research conduct this study in other countries to reproduce, expand, and generalize the present results. In addition, most of the participants were employed in the services sector (86%), which may constrain the generalization of these results to other labor market sectors. Future studies should collect a more diverse sample that better represents the workforce diversity existent in the country.

5.2. Theoretical Implications

Despite its limitations, this study presents several conceptual and theoretical implications. First, this study may have contributed to demonstrating the applicability of the Multidimensional Work Motivation Scale of Gagné et al. (2015) [19] to the Portuguese context, broadening the applicability of the conceptualization around several types of motivation to another context. The Multidimensional Work Motivation Scale of [19] has already been tested in seven languages, namely Chinese (Mandarin), Dutch, English, French, German, Indonesian, and Norwegian. Since Portuguese is one of the most-spoken languages, we believe the use of this measure in the Portuguese context may have added to the literature. Second, to the best of our knowledge, this was the first study to include the study of workers’ motivations according to SDT and the studying of WFC, WFE, and WFB in the same conceptual model. Thus, this study contributed to advancing our theoretical understanding of the relationship between workers’ motivations and work–family relationship perceptions (i.e., WFC, WFE, and WFB) based on SDT. Moreover, the findings of the current research seem to be in line with what is predicted by SDT [65]. More precisely, the more self-determined the reasons to exert effort in the job are, the more positive results individuals show (e.g., higher WFB and WFE and lower WFC). Finally, from the theoretical point of view, the current research seems to provide support for the model of configurations of enrichment and depletion outlined by Rothbard et al. [1]. In other words, the findings of
this study showed that despite WFC, WFE, and WFB being different constructs, they are interrelated, and WFC and WFE seem to contribute to decreasing and increasing, respectively, the perception of WFB.

5.3. Practical Implications

The main findings of the study also provide some practical implications. First, in the selection process for new candidates for a job offer, future employers need to pay attention to candidates’ motivations for a job opening. This practice can benefit both employers and individuals. From the employer’s side, it may prevent costs by avoiding the need to reconduct the selection process due to a person-job misfit [70]. From the individual’s side, this study showed a relationship between motivation to work and perceptions of the work–family relationship. Therefore, bearing in mind these findings, hiring individuals with a higher self-determined motivation to perform a job may help to prevent individuals from perceiving higher WFC and may contribute to increasing the perception of WFE and WFB. As mentioned above, the work–family relationship is one of the main predictors of well-being in European countries [5]. Therefore, human resource practices directed to increase workers’ autonomous motivations are also of crucial relevance. To do so, Stone et al. [71] recommended a set of human resource practices, including actively listening and acknowledging workers’ perspectives, offering choices to individuals (e.g., regarding the work timetable), and sharing knowledge, which may contribute to the satisfaction of the psychological needs of autonomy, competence, and relatedness. In addition, an experiment conducted in Israel [72] showed that intrinsic rewards, such as acknowledgment for a job well done, can motivate employees to increase their performance. Thus, by using those practices we positively contribute to workers’ and organizations’ sustainability.

Despite the practical implications retrieved from the findings of the present study, as previously noted, the sample of the current research included mainly individuals working in the services sector (86%). As such, the practical implications derived from this research might only be relevant to this sector.

6. Conclusions

In conclusion, this research sought to uncover identified gaps in the literature by analyzing the relationship of each type of motivation conceptualized in SDT to work–family relationship perceptions (i.e., WFC, WFE, and WFB). In addition, the findings of this research shed light on the contribution of WFC and WFE to reducing and increasing, respectively, the perception of WFB.

To summarize, this study discovered that intrinsic motivation (the most self-determined form of motivation) seems to contribute to decreasing the perception of WFC and increasing the perception of WFE and WFB. Following the motivation continuum of SDT, identified regulation (i.e., an autonomous type of motivation) seems to contribute to both WFE and WFB but was not significantly related to WFC. Moving to a less self-determined motivation, introjected regulation showed a positive relationship both with WFE and WFB but was not significantly related to WFC. As previously noted, this finding was not expected, since introjected regulation can be conceptualized as a controlled form of motivation along with external regulation. However, contrary to external regulation, introjected regulation includes some internalization of the social norms and rules within the individual, and this characteristic may contribute to explaining this unexpected result. Concerning external regulation and amotivation, the two constructs were found to be positively related to WFC and negatively related to WFE and WFB. Finally, in line with the findings outlined by Rothbard et al. [1], WFC was negatively related to WFB and WFE was positively related to WFB. Overall, these findings highlighted the importance of the development of human resource practices directed to increase workers’ autonomous motivations. More precisely, since autonomous motivations are linked to an increase in positive results (i.e., higher WFE and WFB) and a decrease in negative results (i.e., WFC) of the individuals, these outcomes will impact, in turn, the organizational results. As such, by developing human resource
practices directed at increasing workers’ autonomous motivations, we contribute to both workers’ and organizations’ sustainability.

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**Conflicts of Interest:** The authors declare no conflict of interest.

**Appendix A. The Multidimensional Work Motivation Scale (Portuguese-Translated Items)**

Gagné et al. (2015) [19]

Porque se esforça ou esforçaria para realizar o seu trabalho?

Why do you or would you put efforts into your current job?

Escala Likert de 7 pontos: 1 = “nada”, 2 = “muito pouco”, 3 = “pouco”, 4 = “moderadamente”, 5 = “fortemente”, 6 = “muito fortemente”, 7 = “completamente”.

7-point Likert scale: 1 = “not at all”, 2 = “very little”, 3 = “a little”, 4 = “moderately”, 5 = “strongly”, 6 = “very strongly”, 7 = “completely”.

**Amotivation**

1. Não sei, porque sinto realmente que estou a perder tempo no meu trabalho.
2. Não sei, porque não vale a pena investir o meu esforço neste trabalho.
3. Não sei, porque este trabalho é inútil.
4. I don’t, because I really feel that I’m wasting my time at work.
5. I do little because I don’t think this work is worth putting effort into.
6. I don’t know why I’m doing this job, it’s pointless work.

**Extrinsic regulation—social**

4. Para ter a aprovação dos outros (ex. supervisor, colegas, família, clientes . . . ).
5. Porque os outros vão respeitar-me mais (ex. supervisor, colegas, família, clientes . . . ).
6. Para evitar ser criticado por outros (ex. supervisor, colegas, família, clientes . . . ).
7. Porque os outros só me vão recompensar financeiramente se eu me esforçar o suficiente no meu trabalho (exemplo: empregador, supervisor . . . ).
8. Because others will reward me financially only if I put enough effort into my job (e.g., employer, supervisor . . . ).

**Extrinsic regulation—material**

7. Porque os outros oferecem-me maior segurança no trabalho se eu me esforçar o suficiente no meu trabalho (por exemplo, empregador, supervisor . . . ).
8. Because others offer me greater job security if I put enough effort into my job (e.g., employer, supervisor . . .).
9. Porque me arrisco a perder o meu trabalho se não me esforçar o suficiente.
9. Because I risk losing my job if I don’t put enough effort into it.

Introjected regulation
10. Porque tenho que provar a mim mesmo(a) que sou capaz.
10. Because I have to prove to myself that I can.
11. Porque faz-me sentir orgulho(a) em mim mesmo(a).
11. Because it makes me feel proud of myself.
12. Porque, caso contrário, sentiria vergonha de mim mesmo(a).
12. Because otherwise I will feel ashamed of myself.
13. Porque, caso contrário, sentir-me-ei mal comigo mesmo(a).
13. Because otherwise I will feel bad about myself.

Identified regulation
14. Porque considero pessoalmente importante esforçar-me neste trabalho.
14. Because I personally consider it important to put effort into this job.
15. Porque esforçar-me neste trabalho se alinha com os meus valores pessoais.
15. Because putting effort into this job aligns with my personal values.
16. Porque esforçar-me neste trabalho tem um significado pessoal para mim.
16. Because putting effort into this job has personal significance to me.

Intrinsic motivation
17. Porque me divirto a fazer o meu trabalho.
17. Because I have fun doing my job.
18. Porque o que faço no meu trabalho é entusiasmante.
18. Because what I do in my work is exciting.
19. Porque o trabalho que faço é interessante.
19. Because the work I do is interesting.

References

13. Cesário, F.; Sabino, A.; Moreira, A.; Portugal, M.; Correia, A. Students’ Motivation for a Sustainable Career in the Hospitality Industry in Portugal. *Sustainability* 2022, 14, 6522. [CrossRef]


42. Tang, M.; Wang, D.; Guerrien, A. The Contribution of Basic Psychological Need Satisfaction to Psychological Well-Being via Autonomous Motivation Among Older Adults: A Cross-Cultural Study in China and France. *Front. Psychol.* 2021, 12, 734461. [CrossRef]


