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Balancing Work, Home-schooling, and Childcare: Understanding How COVID-19 Has Affected Work-Life Balance in Greece

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Abstract

This study offers an insightful glimpse into the experiences of working men and women in Greece during the unprecedented first lockdown from March to May 2020. As the pandemic enforced restrictions that led to teleworking, parents found themselves overwhelmed with the simultaneous demands of work, home-schooling, and childcare, all without external support. This situation severely tested work-life balance and placed additional strain on relationships between partners due to the increased burden of unpaid work. This paper shares findings from the Greek segment of the "Covid19 - Health emergency and work-life balance" research, conducted across six countries during the pandemic's initial surge using a standardized online questionnaire and quota sampling. The study included 840 Greek participants aged 18 to 70, analysing the pandemic's effects on work relations, workspace and time organization, job performance, the balance between paid and unpaid work, domestic roles and tasks division, and familial and partner relationships. Employing a work-life balance Likert scale (WLB) with 8 items based on Hayman (2005) and Fisher-McAuley et al. (2003), the study utilized multinomial logistic regression to delve into factors affecting work-life balance during COVID-19. This statistical method predicts outcomes based on a mix of continuous and categorical predictors, aiming to identify individuals with high or low WLB scores using socio-demographic variables such as gender, education level, age group, and marital status.

Keywords: Coronavirus outbreak, balancing work and life, social research, empirical study

1. Introduction

The transition from traditional in-person work environments to online, remote teleworking has undeniably reshaped the landscape of the labour market, compelling a swift and often challenging adaptation to a new global context. The COVID-19 pandemic has fundamentally reshaped the dynamics of work-life balance, presenting unprecedented challenges for individuals striving to navigate the intersection of professional responsibilities with familial obligations. As the pandemic enforced widespread teleworking and stringent lockdown measures, many workers found themselves grappling with the intricate juggling act of balancing work commitments alongside home-schooling and childcare responsibilities. Against this backdrop, understanding the nuanced interplay between individual coping

mechanisms, dyadic coping strategies, and work-family conflict becomes imperative in deciphering the impact of the pandemic on workers' psychological well-being across diverse cultural contexts (Donato et al., 2022). This paper delves into an analysis of primary data extracted from the Greek segment of a comprehensive international quantitative survey titled "Covid19 - Health emergency and work-life balance". This survey, conducted concurrently in six countries—Italy, Spain, Greece, Cyprus, Malta, and Russia—during the initial phase of the pandemic, from March to May 2020, investigates the profound implications of transitioning from office-based work to teleworking on work-life balance. Specifically, this study hones in on the determinants of work-life balance, employing a Multinomial Logistic Regression (MLR) model to elucidate these factors.

A substantial body of research highlights the persistent challenge many employees face in striving to achieve a harmonious balance between their professional and personal lives (Baltes, Clark, & Chakrabarti, 2010). The quest to maintain this equilibrium, safeguarding their quality of life and overall well-being, is a common struggle among workers (Linley, Harrington, & Garcea, 2010; Lunau, Bambra, Eikemo, van der Wel, & Dragano, 2014; Orkibi & Brandt, 2015). Furthermore, the ability to manage stress is intricately linked to an individual's quality of life and well-being (Chen & Cooper, 2014). The COVID-19 pandemic has undeniably inflicted unprecedented levels of stress on populations worldwide. The initial lockdown phase, marked by the sudden shift to teleworking and the imposition of restrictive measures across many countries, placed an immense burden on working parents. They were thrust into a maelstrom of juggling their professional responsibilities, remote schooling, and childcare—all without external support (Eurofound 2020a, 2020b). This situation has inevitably strained work-life dynamics, potentially upsetting family harmony. Conversely, it is conceivable that the crisis has fortified partnerships, fostering an environment of encouragement and mutual support despite the increased burden of unpaid labour. Thus, it is crucial to dissect the factors influencing the observed measures of work-life balance, given the significant changes in workspace and time organization, the balance between paid and unpaid labour, the allocation of roles and tasks within the home, and the dynamics of partner and family relationships. An initial descriptive analysis of the Greek dataset from the survey is presented in Symeonaki et al. 2020, offering preliminary insights into these dynamics.

This study incorporates a work-life balance Likert scale (WLB) consisting of 8 items, modified from Hayman's work-life balance scale (2005), which was itself adapted from an instrument initially introduced by Fisher-McAuley et al. (2003). Subsequent higher order factor analysis has validated that these items collectively serve as indicators of a singular latent construct, as highlighted by Fisher-McAuley and colleagues (2003). In assessing the determinants that influence work-life balance, the study applies a Multinomial Logistic Regression (MLR) model. This model is tasked with predicting work-life balance from a variety of factors pertinent to this distinct period, while also evaluating the significance of each factor.

The paper aims to tackle a set of specific inquiries: First, it examines the validity and reliability of the Likert scale used in the survey for the participants involved. Secondly, it assesses the work-life balance scores for the individuals taking part in the survey. Lastly, it considers

whether an MLR model can effectively evaluate the impact of factors such as age, gender, educational achievement, and marital status on work-life balance.

The paper is structured as follows: Section 2 offers an overview of the survey and the underlying raw data, delineates the theoretical framework guiding the research, and outlines the methodology employed along with the primary limitations. Following this, Section 3 delves into the presentation of results, the assessment of outcomes, and draws conclusions based on the research findings.

2. Method, Data and Limitations

This study undertakes a comprehensive analysis of raw data derived from the initial phase of the empirical survey titled "Covid19 - Health emergency and work-life balance," conducted amidst the early stages of the pandemic lockdown across six nations. The primary objective was to delve into the various strategies individuals employed to navigate the challenges posed by the pandemic crisis and the concurrent implementation of stringent measures in each country. A pivotal aspect of the survey was to shed light on the intricate task of harmonizing work responsibilities, personal life commitments, and familial obligations during this unparalleled period of sudden and profound change, which substantially disrupted the routines and lifestyles of individuals (Symeonaki et al., 2020).

The survey adopted a standardized e-questionnaire, common across all participating countries, and employed quota sampling with gender as the control variable to ensure diverse representation. Electronic distribution emerged as the primary mode of data collection, consistent with the prevailing practices observed in other European surveys conducted during this period (Eurofound, 2020a, 2020b).

In the specific context of Greece, a total of 840 individuals were granted access to the questionnaire hyperlink, with close to 750 respondents completing the survey in its entirety. The overarching objective was to achieve a balanced representation from various occupational sectors and geographical regions. Data collection took place between May 25th and June 15th, 2020, during which participants were tasked with reflecting on their experiences amid the initial phase of emergency restrictive measures and lockdown (March-May 2020). The socio-demographic profile of the sample is detailed in Table 1, showcasing an overrepresentation of educational attainment, consistent with prevalent trends observed in opinion surveys (Stephan and McCarthy, 1974), particularly those leveraging e-questionnaires. Additionally, a substantial proportion of respondents (67.3%) were employed, with 36.1% reporting having at least one child under the age of 18, further enriching the diversity of the sample.

Table 1. The socio-demographic characteristics of respondents (*N* = 757)

Variables	Sample (%)
Gender	
Female	51,1
Male	48.9
Age categories	
18-28	11,6
29-39	26,9
40-50	31,8
51-61	24,6
62-72	5,0
Highest educational attainment	
Primary school	0,4
Lower secondary	0,4
Secondary	10,4
Higher education	6,2
Higher education (non-University)	3,1
Higher education (University)	31,5
Postgraduate (Master's degree)	37,6
Postgraduate (PhD)	10,5
Marital status	
Single	29,3
In cohabitation	11,5
Married	51,0
Divorced	7,5
Widowed	0,8
Economically active (N=502)	
Fully employed	94,8
Part time employed: Working some hours or days of the week or month	2,8
Part time employed: Reduced working hours on a daily basis	2,4

Source: Covid19 - Health emergency and work-life balance, Greek sample

The questionnaire utilized in this study employed a Likert scale to measure work-life balance, selecting from 15 items-questions originally used by Hayman (2005), adapted from an instrument developed by Fisher-McAuley et al. (2003). Fisher-McAuley's scale, comprising 19 items, was designed to evaluate three dimensions of work-life balance: work interference with personal life, personal life interference with work, and work-personal life enhancement. In this study, respondents were asked to indicate their level of agreement or disagreement with a series of statements reflecting their experiences during the emergency period of the initial COVID-19 lockdown. Specifically, the 8 items used in this study featured 5 response categories, ranging from "totally disagree" to "totally agree." Responses were graded on a scale from 1 to 5, with categories including "totally disagree," "probably disagree," "neither agree nor disagree," "probably agree," and "totally agree." The questions posed to participants were as follows:

1. My personal life suffers because of work.
2. My job makes personal life difficult.
3. I neglect personal needs because of work.
4. I struggle to juggle work and non-work.
5. I am unhappy with the amount of time for non-work activities.
6. I am too worried about being effective at work.
7. My personal life gives me energy for my job.
8. My job gives me energy to pursue personal activities.

Two crucial psychometric properties of Likert scales and attitude scaling in general—reliability and validity assessment—must be addressed. Reliability pertains to the consistency of attitude measurement across repeated trials under stable conditions, while validity refers to the scale's ability to measure what it was intended to measure (in this case, work-life balance). The initial phase of attitude measurement analysis involves assessing the validity and reliability of the overall Likert scale (or its subscales). Once completed, decisions regarding the unidimentionality or multidimensionality of the Likert scale can be made. An informative flowchart outlining the stages involved in developing a Likert scale (or its subscales) is provided in Symeonaki et al. (2015). With evidence supporting the unidimentionality of the scale using 7 out of 8 items, the construction of the Multinomial Logistic Regression (MLR) model is pursued.

This study focuses on examining the relationship between various demographic factors and Work-Life Balance (WLB). The dependent variable, WLB, is assessed using a Likert scale, which has been validated and proven reliable through the survey instrument. The independent variables include age, gender, educational attainment, and marital status. The model aims to predict WLB scores based on these independent variables.

A significant limitation of this research lies in the sampling design employed in the survey, which is non-probabilistic in nature. Specifically, the snowball method with quota sampling corrections was utilized. While this approach allows for adjustments to the sample composition based on known characteristics of the population, it tends to yield a non-representative sample. Despite efforts to address this limitation through ex-post corrections to ensure gender representation, inherent biases may still exist.

Moreover, the exclusion of individuals without internet access—often associated with lower levels of digital literacy, particularly among the elderly, residents of remote areas, and those with lower education levels—poses a further challenge. Participation in online surveys inherently requires a certain level of digital literacy and attempts to mitigate this bias through ex ante checks may not fully justify the sampling method employed. As a result, caution should be exercised when interpreting the outcomes of this study.

3. Results

In this study, the assessment of work-life balance utilized seven questions/items, as detailed

in Section 2. Reliability assessment was conducted using Cronbach's alpha reliability coefficients for the overall scale, adhering to the well-established criterion of a coefficient greater than 0.70 to ensure reliability. The reliability and Principle Components Analysis (PCA) analysis revealed the exclusion of one question: "My personal life gives me energy for my job." The Cronbach's alpha reliability coefficient for the remaining 7 questions was calculated to be 0.881, exceeding the threshold of 0.70 and indicating increased reliability compared to the 8-item scale (0.864). Prior to analysis, the ordering of positive and negative items was reversed to ensure consistency with the overall scale's definition, resulting in higher work-life balance scores reflecting greater balance.

Furthermore, PCA was employed to assess the construct validity of the proposed Work-Life Balance (WLB) scale. A one-component factor solution was derived based on the eigenvalue greater than 1.0 criterion, indicating the unidimentionality of the underlying attitude when using the 7-item scheme. The Kaiser-Meyer-Oklin (KMO) measure of sample adequacy was calculated, yielding values greater than 0.60 in both cases (KMO=0.859 for the 8-item investigation and KMO=0.864 for the 7-item model). Factor loadings for Principle Components Analysis using 8 and 7 items, along with varimax rotation, are presented in Tables 2 and 3, respectively. Moreover, the two-factors model proposed explains 66.6% of the total variance when the 8-item scale is used, while the unidimensional model of the 7-item scale accounts for 62.86% of the total variance.

Table 2. Loadings for Principle Components Analysis and varimax as rotation, 8-items scale

	Component	
	1	**2**
My personal life suffers because of work.	**0.749**	**0.366**
My job makes personal life difficult.	**0.863**	0.188
I neglect personal needs because of work.	**0.793**	0.062
I struggle to juggle work and non-work.	**0.664**	-0.023
I am unhappy with the amount of time for non-work activities.	**0.819**	**0.329**
I am too worried about being effective at work.	**0.767**	0.171
My personal life gives me energy for my job.	-0.011	**0.863**
My job gives me energy to pursue personal activities.	**0.328**	**0.729**

Table 3. Loadings for Principle Components Analysis and varimax as rotation, 7-items scale

	Component
	1
My personal life suffers because of work.	**0.833**
My job makes personal life difficult.	**0.874**
I neglect personal needs because of work.	**0.766**
I struggle to juggle work and non-work.	**0.608**
I am unhappy with the amount of time for non-work activities.	**0.884**
I am too worried about being effective at work.	**0.779**
My job gives me energy to pursue personal activities.	**0.565**

Subsequently, we evaluated the one-component solution for simplicity and interpretability by conducting both varimax and ProMax rotations. Based on the results, we interpreted the single factor as representing work-life balance (WLB). A unidimensional measurement of a construct, such as WLB, is deemed appropriate when construct validity assessments suggest the presence of a single underlying dimension. In such cases, item scores can be summed directly, allowing WLB scores to theoretically range from 7 to 35.

Interestingly, the observed minimum and maximum WLB scores in our sample were 7 and 35, respectively, with a mean score of 23.34. To facilitate interpretation, we divided the range of WLB scores into five categories representing varying levels of WLB, as illustrated in Figure 1.
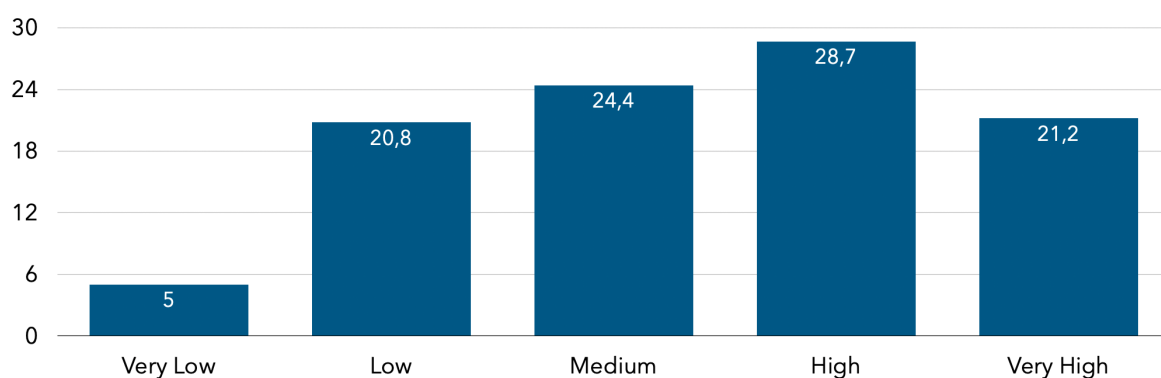

Figure 1. Categories of respondents' work-life balance, $N = 460$

In the model utilized for analysis, valid cases amounted to N=460, encompassing a comprehensive set of independent variables constituting the input layer. These variables include gender, age, educational attainment, and marital status.

Multinomial logistic regression (MLR) models serve as a prevalent tool in literature for investigating the determinants of unemployment (Msigwa and Kipesha, 2013; Andrews and Bradley, 1997; Dănăcică, 2015; Verdier-Chouchane 2011). This method is particularly adept at modeling the outcome of a nominal variable, where the log odds of outcomes are expressed as a linear combination of predictive variables. Herein, we employ MLR to develop a predictive framework aimed at identifying high-risk groups for experiencing low Work-Life Balance (WLB). Our objective is to discern the socio-demographic factors influencing an individual's WLB outcomes and delineate profiles of those predisposed to low WLB.

The reference category chosen for comparison is the high/very high WLB category, deemed as the desired standard against which others are gauged. This allows us to assess the odds of having low/very low WLB relative to high/very high WLB, while considering socio-demographic characteristics.

Specifically, our interest lies in three WLB categories: low/very low, medium, and high/very high. We conceptualize three unobserved continuous variables, each representing

propensity toward a WLB category, with higher values indicating greater likelihood of belonging to that category. The Relative Risk Ratios (RRR) are examined to understand the influence of various factors on the likelihood of having low/very low WLB or medium WLB compared to high/very high WLB.

Validation of the multinomial logistic regression analysis entails ensuring that the data adhere to the necessary assumptions. Preliminary analysis, including cross-tabulation, chi-square tests, and Likelihood ratio tests, revealed significant associations between gender, educational attainment, age, marital status, and WLB. Notably, in Greece, educational attainment and marital status were found to be insignificant factors influencing WLB propensity. Gender emerged as a key determinant, with females exhibiting a 1.592 times higher propensity for low/very low WLB compared to males. Additionally, age played a significant role, with younger individuals (18-34) and those aged 35-50 demonstrating substantially higher propensities for low/very low WLB compared to older individuals (+50). Specifically, individuals aged 35-50 exhibited a 2.505 times higher propensity for low/very low WLB than those over 50, indicating a strong association between age group and WLB outcomes.

Table 1. Relative risk ratios for individuals (low/vey low WLB vs high/very high), Greece, 2020

Factors	Categories	Low/very Low	Std.
Level of Education	Low	-	-
	Medium	-	-
Gender	Female	1.592**	0.238
Age categories	18-34 (vs.	2.623***	0.354
	35-50 (vs.	2.505***	0.285
Marital status	Single	-	-

***p<0.001, **p<0.01, - not statistically significant

4. Conclusions and Discussion

This study delved into the intricate dynamics of work-life balance (WLB) among working individuals in Greece during the unprecedented circumstances of the COVID-19 pandemic's initial lockdown phase from March to May 2020. The profound impact of the pandemic-induced restrictions, notably the transition to teleworking, was keenly felt by parents who grappled with the daunting challenge of balancing work responsibilities with home-schooling and childcare, all without external support. This study, a segment of the broader "Covid19 - Health emergency and work-life balance" research spanning six countries, aimed to shed light on the repercussions of this period on various facets of work and personal life, with a particular focus on WLB.

Drawing from a dataset of 840 Greek participants aged 18 to 70, we utilized a standardized online questionnaire and quota sampling methodology to capture insights into the effects

of the pandemic on work relations, workspace organization, job performance, unpaid work burden, household roles, and familial relationships. Employing a Likert scale comprising 8 items adapted from previous works, we employed Multinomial Logistic Regression (MLR) to dissect the factors influencing WLB during this tumultuous period, with demographic variables such as gender, age, education level, and marital status under scrutiny.

Our findings underscore the significance of addressing work-life balance, particularly amidst unprecedented disruptions such as those induced by the COVID-19 pandemic. The transition to teleworking brought forth a myriad of challenges, with implications for individuals' well-being and familial harmony. While some may have found strength and resilience in navigating these challenges together with their partners, others faced heightened stress and strain in balancing professional and personal responsibilities.

The validation and reliability assessment of the Likert scale used in our study revealed promising results, affirming its suitability for measuring WLB among our participants. Through comprehensive analysis, we identified a unidimensional construct underlying the WLB scale, providing a robust foundation for subsequent investigations.

Our Multinomial Logistic Regression analysis unveiled compelling insights into the determinants of WLB among Greek workers. Notably, gender emerged as a significant predictor, with females exhibiting a higher propensity for low WLB compared to males. Age also played a pivotal role, with younger individuals facing heightened challenges in achieving WLB compared to their older counterparts. Additionally, educational attainment and marital status yielded nuanced insights into the WLB landscape, highlighting the complex interplay of socio-demographic factors in shaping individuals' experiences during the pandemic.

However, it is imperative to acknowledge the limitations inherent in our study, particularly concerning the non-probabilistic sampling design and the exclusion of individuals without internet access, which may introduce biases into our findings. Despite these constraints, our study offers valuable insights into the nuanced dynamics of work-life balance during a period of unparalleled upheaval, underscoring the importance of holistic approaches to supporting individuals in achieving meaningful equilibrium between their professional and personal spheres. Moving forward, further research and targeted interventions are warranted to address the multifaceted challenges posed by evolving work arrangements and societal disruptions, with a view towards fostering resilient and thriving communities.

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Ethical considerations

Ethical clearance for this study was obtained from the Research Committees of the Catholic University of Milan (Commissione Etica per la Ricerca in Psicologia CERPS) and the Research Committee of Panteion University of Social and Political Sciences (25/5/2020). Prior to participation, respondents provided informed consent for inclusion, data collection/use, and/or publication by agreeing upon entering the electronic submission page.