## **RESEARCH ARTICLE**

## Burnout in Telecommunications Contracting Projects: Aggravating Factors and its Association with Gender

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## Abstract:

*Aim:* This research explores burnout in the telecommunications sector, focusing on personal and organizational factors based on gender. The hypotheses relate to gender differences, work-life balance, and organizational factors.

*Methods:* Using the quantitative methodology, 100 employees were interviewed, assessing variables, such as age, gender, marital status, work-life balance, and organizational support with the Maslach Burnout Inventory (MBI). The data analysis, conducted using Jamovi, led to the following key findings.

**Results:** No significant gender differences were observed in depersonalization, personal achievement, and emotional burnout (p = 0.498, p = 0.614, p = 0.285, respectively), rejecting the first hypothesis. The work-life imbalance was associated with higher depersonalization (p = 0.001) and emotional exhaustion (p < 0.001), partially confirming the second hypothesis. Respondents with a lack of work-life balance reported significantly greater depersonalization (average = 11.50 vs. 6.41) and emotional burnout (average = 29.60 vs. 17.24). High workload and insufficient support were associated with increased depersonalization (p = 0.023) and emotional burnout (p = 0.002), partially confirming the third hypothesis. Participants with high workloads reported greater depersonalization (average = 8.89 vs. 4.86) and emotional exhaustion (average = 23.42 vs. 12.86).

*Discussion:* Rapid technological changes and high demands in the telecommunications sector exacerbate stress, highlighting the need for effective workload management, organizational support, and promoting work-life balance to mitigate burnout.

*Conclusion:* Moreover, the implications of the fact that no significant gender differences are observed must be investigated in future studies.

**Keywords:** Burnout, Telecommunications, Contracting projects, Gender, Aggravating factors, Psychological syndrome.

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## **1. INTRODUCTION**

Burnout is a multifaceted psychological syndrome that occurs due to prolonged exposure to work-related stressors [1]. Initially observed among healthcare professionals, it has since emerged in various professional fields, including the telecommunications industry. Burnout, as mentioned earlier, includes three main dimensions consisting of emotional exhaustion, depersonalization, and feelings of diminished personal achievement [2]. Emotional exhaustion, a key aspect of burnout, refers



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to the depletion of a person's emotional reserves and manifests as deep fatigue that hinders their ability to cope effectively with daily professional demands. This phenomenon is intricately linked to the widespread exposure of the individual to emotional and interpersonal stressors prevalent in the workplace, which gradually erodes his emotional resilience [3]. The pervasive feeling of being overwhelmed by work-related demands can lead to a situation where recovery becomes impossible, thus perpetuating the cycle of burnout. Research by Halbesleben and Buckley [4] further clarifies this condition, showing how emotional exhaustion serves as a precursor to other dimensions of burnout, highlighting its central role in the progression of burnout syndrome. Depersonalization, the second dimension, manifests itself through an impersonal and indifferent attitude towards various aspects of a person's work, especially affecting interactions with service recipients, partners, or clients. This detachment is characterized by a growing sense of alienation and cynicism towards one's work responsibilities, leading to a dehumanized perception of others as mere tasks rather than individuals with distinct needs and feelings [2]. Such a defense mechanism, although maladaptive, serves as a coping strategy to distance the person from the emotional demands of work, thereby maintaining his reduced emotional resources. Wright and Cropanzano [5] have investigated this phenomenon, emphasizing that depersonalization can act as emotional protection, albeit at the expense of interpersonal relationships and job satisfaction. Finally, diminished personal achievement, the third dimension, is essentially a sense of diminishing efficiency and productivity in the professional role. It reflects an internalized sense of inadequacy, where individuals perceive their contributions and achievements as insufficient or unsatisfactory [2]. This self-criticism not only undermines one's self-confidence but also contributes to a pervasive sense of ineffectiveness, further exacerbating burnout. Research by Leiter and Maslach [6] highlights the reciprocal nature of reduced personal achievement and work commitment, suggesting that improvements in engagement strategies at work could potentially mitigate feelings of helplessness and enhance a person's sense of professional effectiveness. Collectively, these dimensions highlight the multifaceted nature of burnout, emphasizing the interaction between individual and organizational factors in its development and maintenance. The complex dynamics between emotional exhaustion, depersonalization, and diminished personal achievement require a holistic approach to both research and intervention strategies aimed at mitigating burnout. The evolution of the concept of burnout today reflects broader societal changes, including changes in the dynamics of work and family life and the increasing prevalence of chronic workplace stress across industries. The inclusion of burnout in ICD-11 by the World Health Organization has also highlighted its importance as a global occupational phenomenon, highlighting its relevance to the rest, beyond traditional high-pressure occupations, such as healthcare and education [7]. In addition to the above, in the field of

research on the content of burnout, gender differences in the manifestation of burnout symptoms have been a focal point of research, revealing complex patterns. In this regard, studies have shown that women tend to report higher levels of emotional exhaustion, attributed to factors, such as work-life balance challenges, social expectations, and roles that often involve emotional effort and pressure [8]. This may be due to the different social roles that females have during the last decades in modern societies, resulting in a poorer quality of life and mental health [8]. Conversely, men have been reported to experience higher levels of depersonalization, possibly due to different socialization processes and coping strategies [3]. However, these findings are not universal, with variations observed across cultures, professions, and organizational contexts. Inconsistent findings on gender differences in burnout have highlighted the importance of considering manv factors. including personal characteristics, such as age, marital status, and personality, as well as other organizational factors, such as job requirements, work environment, and leadership styles. For example, research has shown that high job demands combined with an inability to control or find balance can contribute significantly to burnout, highlighting the role of the work environment in its development [9]. The fast-paced and constantly evolving telecommunications industry is introducing a distinct set of challenges that may accelerate the exhaustion of its workforce. The industry's inherent demand for rapid technological adaptation and continuous improvement of staff skills places a heavy burden on workers, necessitating continuous learning and adaptation. This requirement for continuous professional development, combined with the project- and contract-based nature of work, creates an environment of job insecurity and increased work intensity [10, 11]. In this regard, research by Hobfoll [12] based on the theory of Resource Conservation argues that such environments, which require a high investment of personal resources with limited recovery time, contribute significantly to the depletion of a person's psychological and emotional resources, potentially leading to exhaustion. Also, the highly insecure nature of work in this sector further exacerbates these stressors. Sverke, Hellgren, and Näswall [13] emphasize that job insecurity not only contributes directly to stress and burnout but also undermines an individual's commitment to the organization, creating a cyclical pattern of stress and dissatisfaction. Moreover, the traditionally maledominated environment of the telecommunications sector introduces another layer of complexity when considering gender-related aspects of burnout. Research by Purvanova and Muros [8] suggests that gender may play an important role in how individuals experience and cope with burnout, with women potentially facing more stressors related to work-and-family balance as well as managing gender dynamics in the workplace. This interplay of gender roles and workplace dynamics requires a subtle exploration of how burnout manifests itself and is addressed across different demographic groups in the industry. Looking at

previous industry-related factors, it becomes imperative to adopt targeted strategies to mitigate the risk of burnout in the telecommunications sector. Organizational interventions aimed at enhancing job security, promoting worklife balance, and fostering a supportive work environment can be instrumental in addressing the root causes of burnout. In addition, recognizing and addressing the additional challenges faced by female workers in this traditionally male-dominated sector can help create an inclusive work environment. Given the multifaceted nature of burnout and its significant impact on individuals' wellbeing and organizational outcomes, it is important to take a holistic approach to researching and treating this syndrome. Understanding the specific risk factors and mechanisms underlying burnout in the telecoms sector, particularly in the context of gender gaps, can contribute to targeted interventions to mitigate its effects and promote a healthier work environment.

The primary goal of this research is to investigate the occurrence of burnout among employees in telecommunications contracting companies by examining how various personal and organizational factors, including gender, affect burnout levels. Exploring this issue is made important by the gap in the existing literature on gender differences in burnout in different occupational fields. Specifically, the number of studies related to the role of gender regarding burnout in telecommunications contracting projects is limited, particularly in Greece. Given the rapidly evolving environment of the telecom industry and the critical nature of its projects, understanding this dynamic is crucial to implementing effective interventions to mitigate burnout.

According to the comprehensive review of the existing literature, three [3] main research hypotheses are put forward in this study:

# **1.1. H1: Gender Differences in the Dimensions of Burnout**

It is assumed that women in the telecommunications industry experience higher levels of burnout in all dimensions compared to their male colleagues. This hypothesis builds on findings from previous research showing that women may experience higher levels of emotional burnout and, especially, reduced personal achievement.

## **1.2. H2: Influence of Personal Characteristics**

Personal characteristics, such as age, marital status, and work-life balance, are expected to significantly affect the level of burnout. This hypothesis aligns with research suggesting that these factors can exacerbate or mitigate the effects of work-related stressors.

## **1.3. H3: The Role of Organizational Traits**

Organizational characteristics, including work hours, workload, leadership support, and position responsibilities, are expected to affect burnout levels. Studies have highlighted the contribution of such factors to the development of burnout in various occupational contexts.

#### **2. METHOD**

The prevalence of burnout in the telecommunications industry, particularly among those involved in outsourcing, is the cornerstone of this research study. The rapid technological advances that characterize this sector, combined with contract work, lead to the emergence of unique stressors that may predispose individuals to experience symptoms of burnout. This study analyzed the factors contributing to burnout in this context, with particular emphasis on the role of gender. In this study, the methodology of quantitative research was used and in particular, an online survey was conducted to collect the data. One hundred individuals participated in the present study using a convenience sample. Data on demographic and organizational characteristics were collected through multiple-choice questionnaires. The survey included Likert questions with digits from 0 to 6, which are not typically used in the Maslach Burnout Inventory (MBI) psychometric tool, to assess participants' perception of burnout and the factors that contribute to its occurrence. This methodological selection allowed the participation of a wide and diverse group of participants, allowing the examination of burnout in various demographic groups in the telecommunications industry.

The survey targeted men and women over the age of 18 working in Greece for the telecommunications sector, including those working directly for telecommunications companies and their contractual partners. In collaboration with the Hellenic Fiber Optic Association and utilizing sampling techniques, the study aimed to reach a wide range of participants across the industry.

The research was divided into three sections:

## 2.1. Module A: Demographic Data

This module will collect information about participants' age, gender, marital status, and work-life balance, among other variables, to investigate their influence on burnout.

## 2.2. Module B: Organizational Characteristics

Questions in this section will address participants' work environment, including workload, hours worked, and level of management support, in order to assess their impact on burnout levels.

## 2.3. Module C: Burnout Scale

The Maslach Burnout Inventory (MBI) will be used to measure burnout, given its widespread use in previous research [14].

Before the main analyses, preliminary analyses were carried out to investigate descriptive indicators and correlations between the variables studied. Successive comparisons were then made between different sample groups *via* Mann-Whitney U and Kruskal Wallis on burnout variables. First, Mann-Whitney U analyses were performed on independent samples to investigate gender differences in burnout (H1) variables. Then, Mann-Whitney U and Kruskal Wallis were performed together to investigate differences in burnout variables in terms of demographic characteristics (marital status, age group, work-life

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balance) (H2). Finally, Mann-Whitney U analyses were performed for differences in burnout variables related to organizational characteristics (long working hours, heavy workload, holding a position of responsibility, leadership/ management support) (H3). These tests were performed to study potential gender differences regarding the variables investigated and if the variable of gender is a predictive factor. The analyses were carried out using the Jamovi statistical package.

## 3. RESULTS

## **3.1. Descriptive Statistical Indicators**

In total, 100 people (50 men and 50 women) consented to participate in the study. Most subjects were between 26-35 years old (n = 35, 35%), 36-45 years old (n = 26, 26%) and 46-55 years old (n = 22.22%). The majority of individuals stated that they were unmarried (n = 41.41%) and married (n = 45, 45%). The majority also stated that there is no work-life balance (68%) (see Table 1).

-	f	%
Age categories	100	100
18-25	13	13
26-35	35	35
36-45	26	26
46-55	22	22
55-65	2	2
66+	2	2
Sex	100	100
Man	50	50
Wife	50	50
Marital status	100	100
Single – Single	41	41
Married – In a Partner Relationship	45	45
Divorced	12	12
Widower	2	2
Work-life balance	100	100
Yes	32	32
No	68	68

Table 1. Demographic characteristics of the sample.

Regarding work, most participants stated that they work long hours (69%), undertake a heavy workload (79%), and hold positions of responsibility (70%) while stating that they do not receive support from leadership or management in their work environment (66%) (see Table 2).

Descriptive statistical indicators and reliability factors for the burnout sub-scales are presented below (see Table 3). Participants reported low levels of depersonalization (M = 8.04) while reporting a high level of personal achievement (M = 28.10) and low to moderate levels of emotional exhaustion (M = 21,20). Regarding reliability factors, reliability analyses showed that the internal coherence reliability of the Depersonalization ( $\alpha = 0.83$ ) and Personal Achievement ( $\alpha = 0.88$ ) sub-scales was good, and that of the Emotional Exhaustion sub-scale ( $\alpha = 0.91$ ) was excellent (for the assessment of credibility indicators, see George & Mallery, 2016).

## Table 2. Work-related variables.

-	f	%
Long working hours	100	100
Yes	69	69
No	31	31
Large amount of work	100	100
Yes	79	79
No	21	21
Leadership/management support at work	100	100
Yes	66	66
No	34	34
Holding a position of responsibility	100	100
Yes	70	70
No	30	30

Table 3. Descriptive statistical indicators andreliability coefficients for burnout subscales.

-	# items	M	SD	Min	Max	Alpha
Burnout	22	-	-	-	-	-
Depersonalization	5	8,04	7,35	0	30	0,83
Personal achievements	8	28,10	11,50	2	48	0,88
Emotional exhaustion	9	21,20	13,32	0	50	0,91

## **3.2. Checking Regularity**

In order to investigate whether the data follow the normal distribution and to decide the type of analyses to be performed subsequently (parametric-nonparametric), a regularity check was performed with the Shapiro-Wilk test. The test results showed that the null hypothesis must be disproved as none of the variables follows the normal distribution (p < 0.01) (see Table 4). Therefore, scores on the subscales of depersonalization, personal achievements, and emotional exhaustion are not normally distributed, and nonparametric analyses will be performed.

Table4. Normalitycheckforsub-scalesofdepersonalization,personalachievement,andemotionalexhaustion.

-	Shapiro-Wilk	р	М	SD
Depersonalization	0,90	0,000	8,04	7,35
Personal achievements	0,95	0,000	28,10	11,50
Emotional exhaustion	0,96	0,003	21,20	13,32

### **3.3. Review of Research Queries**

## 3.3.1. Differences in Group Averages for Depersonalization, Personal Achievement, and Emotional Exhaustion in Demographic Characteristics

To investigate transgender differences in the subscales of burnout, *i.e.* depersonalization, personal achievement, and emotional exhaustion, a nonparametric Mann-Whitney U analysis was performed for independent samples (2 comparison groups). The analysis showed that there were no statistically significant differences between men and women in depersonalization, with U = 1152, p = 0.498, personal achievements, U = 1117, p = 0.614, and emotional burnout, U = 1095, p = 0.285 (see Table 5). Therefore, there are no transgender differences with respect to the previous three variables.

Table 5. Mann-whitney U test for depersonalization, personal achievement, and gender emotional exhaustion.

-	S	-	
-	Man Wife [n=50] [n=50]		-
-	М	M	In the
Depersonalization	8,40	7,68	1152
Personal Achievements	27,52	28,62	1177
Emotional exhaustion	19,40	23,00	1095

To investigate differences in marital status regarding depersonalization, personal achievement, and emotional exhaustion, a nonparametric univariate Kruskal Wallis variance analysis was performed for independent samples (4 comparison groups). However, the groups of divorced and widowed persons were not represented by a sufficient number of persons (n = 2). The results showed no statistically significant difference in depersonalization, x2 [3] = 2.31, p = 0.511, personal achievement, x2 [3] = 3.15, p = 0.370, and emotional exhaustion, x2 [3] = 3.03, p = 0.386 (see Table 6). Therefore, there are no differences in the above-mentioned variables in terms of marital status.

Table 6. Kruskal-wallis test for depersonalization, personal achievements, and emotional exhaustion in marital status.

-	Marital Status				-	-
-	AE [n=41]	HS [n=45]	D [n=12]	X [n=2]	-	-
-	М	М	M	M	df	<b>X2</b>
Depersonalization	8,46	8,07	6,92	5,50	3	2,31
Personal Achievements	27,60	29,70	25,90	13,50	3	3,15
Emotional exhaustion	20,60	23,10	16,80	18,50	3	3,03

**Note:** AE = Single - Single, HS = Married - In a partnership, D = Divorced, X = Widowed.

Another univariate Kruskal-Wallis variance analysis was performed in order to investigate differences in the aforementioned variables in different age categories (6 comparison groups). The age groups 56-65 and 66+ were represented by very few people (n = 2). The results showed no statistically significant difference in depersonalization, with  $\chi^2$  [5] = 7.03, p = 0.218, personal achievements,  $x^2$  [3] = 1.94, p = 0.857, and emotional exhaustion,  $x^2$  [5] = 4.89, p = 0.429 (see Table 7). Therefore, there are no differences in the abovementioned variables in terms of age groups.

Finally, in order to investigate differences depending

on the existence or non-existence of a work-life balance according to the participants' statement (2 comparison groups) regarding depersonalization, personal achievements, and emotional exhaustion, a nonparametric Mann-Whitney U analysis was performed for independent samples (2 comparison groups). The analysis revealed statistically significant differences. Specifically, people who stated that there is a balance between their personal and professional lives reported significantly less

and professional lives reported significantly less depensionalization (M = 6.41) than those who said it does not exist (M = 11.50), with U = 647, p = 0.001, difference with moderate impact size, r = 0.41. In terms of personal achievement, people who said there was a work-life balance reported significantly more personal achievements (M = 29.31) relative to those who said it does not exist (M = 25.40), with U = 793, p = 0.029, and the difference with a small magnitude of effect, r = 0.27. Also, people who said there was a work-life balance reported significantly less emotional exhaustion (M =17.24) than those who said otherwise (M = 29.60), U =519, p < 0.001, difference with large effect size, r = 0.52(see Table 8).

Table 7. Kruskal-wallis test for depersonalization, personal achievements, and emotional exhaustion in age groups.

-		Age Groups				-	-	
-	18-25 [n=13]	26-35 [n=35]	36-45 [n=26]	46-55 [n=22]	56-65 [n=2]	66+ [n = 2]	-	-
-	М	М	М	М	M	M	df	<b>X2</b>
Depersonalization	8,69	10,30	6,12	6,05	4,00	15,00	5	7,03
Personal Achievements	28,00	28,50	29,70	26,50	29,00	17,5	5	1,94
Emotional exhaustion	21,80	24,70	17,80	19,40	22,00	20,50	5	4,89

Table 8. Mann-whitney U test for depersonalization, personal achievements and emotional exhaustion in work-life balance.

-	Work-life	-	
-	Yes No [n=68] [n=32]		-
-	М	М	In the
Depersonalization	6,41	11,50	647**
Personal Achievements	29,31	25,40	793*
Emotional exhaustion	17,24	29,60	519***

**Note:** Σημείωση: \*p < 0,05. \*\*p < 0,01. \*\*\*p < 0,001.

## 3.3.2. Various Group Averages for Depersonalization, Personal Achievement, and Emotional Exhaustion for Work-Related Factors

To investigate differences in work-related factors (long working hours, heavy workload, holding a position of responsibility, and leadership/management support), successive nonparametric Mann-Whitney U analyses were performed for independent samples (2 groups). Regarding the existence or non-existence of long working hours, no statistically significant differences were found in depersonalization, with U = 937, p = 0.324, personal achievement, U = 1042, p = 0.840, and emotional burnout, U = 862, p = 0.123 (see Table 9). Therefore, there are no differences in the aforementioned variables between people who work and people who do not work long hours.

Table 9. Mann-whitney U test for depersonalization, personal achievements, and emotional exhaustion in long hours.

-	Long Hou	-	
-	Yes No [n=69] [n=31]		-
-	М	М	In the
Depersonalization	8,67	6,65	937
Personal Achievements	28,09	28,03	1042
Emotional exhaustion	22,72	17,81	862

In terms of whether or not to have a large amount of work, statistically significant differences were found in depersonalization, U = 561, p = 0.023, with people taking on a large amount of work reporting significantly greater depersonalization (M = 8.89) compared to people not taking on a large amount of work (M = 4.86), indicating the difference with moderate effect size, r = 0.32. In terms of personal achievement, there were no statistically significant differences between those who reported and those who did not report a large amount of work, U = 798, p = 0.790. In terms of personal achievement, people who reported taking on a large amount of work reported significantly greater emotional burnout (M = 23.42) compared to those who reported not taking on a large amount of work (M = 12.86), U = 456, p = 0.002, indicating the difference with moderate effect size, r = 0.45 (see Table 10).

Table 10. Mann-whitney U test for depersonalization, personal achievements, and emotional exhaustion in workload.

-	Work V	-	
-	Yes No [n=79] [n=21]		-
-	М	М	In the
Depersonalization	8,89	4,86	561*
Personal Achievements	28,41	26,81	798
Emotional exhaustion	23,42	12,86	456**

Table 11. Mann-whitney U test for depersonalization, personal achievement, and emotional exhaustion in holding a position of responsibility.

-	Holding a Position	-	
-	Yes No [n=66] [n=34]		
-	М	М	In the
Depersonalization	6,03	11,90	600***
Personal Achievements	29,62	25,10	776*
Emotional exhaustion	16,77	29,80	527***

In terms of occupying a position of responsibility at work, no statistically significant difference was found in the two groups regarding depersonalization, with U = 897, p = 0.248, personal achievement, U = 1022, p = 0.836, and emotional burnout, U = 1020, p = 0.821 (see Table **11**). Therefore, there are no differences in the aforementioned variables between people who hold and people who do not hold a position of responsibility in their work.

Regarding the existence or absence of leadership/ management support, statistically significant differences were found in depersonalization, U = 600, p < 0.001, with individuals who reported receiving leadership/ management support at work reporting significantly less depersonalization (M = 6.03) compared to individuals who said they did not (M = 11.90), indicating the difference with moderate effect size, r = 0.47. In terms of personal achievement, individuals who reported receiving leadership/ management support at work reported significantly more personal achievement (M = 29.62) than those who reported not receiving it (M = 25.10), with U =776, p = 0.012, indicating the difference with moderate impact size, r = 0.31. Finally, individuals receiving leadership/management support at work reported significantly less emotional exhaustion (M = 16.77)compared to people who did not receive it (M = 29.80), U = 527, p < 0.001, indicating the difference with large impact size, r = 0.53 (see Table 12).

Table 12. Mann-whitney U test for depersonalization, personal achievement, and emotional exhaustion for leadership/management support.

-	Suppor Leadership/r	-	
-	Yes [n=66]	No [n=34]	-
-	М	М	In the
Depersonalization	6,03	11,90	600***
Personal Achievements	29,62	25,10	776*
Emotional exhaustion	16,77	29,80	527***

#### 4. DISCUSSION

The study investigated the occurrence of burnout among employees at companies that enter into tele-communications contracts, examining how various personal and organizational factors, including gender, affect burnout levels. The survey sample consists of a total of 100 employees, both men and women. At the same time, most respondents are 26 to 35 years old, married or in a partner relationship, and have a work-life balance. At the same time, more often, respondents report working long hours, agreeing that they have a large amount of work and that they receive support from leadership and management. Finally, most also hold a position of responsibility. The survey showed that respondents often fear that their work is emotionally difficult and that they easily understand the actions of their colleagues and supervisors. In addition, at a higher frequency, they report feeling that they are working too hard. In general, the level of depersonalization and emotional exhaustion is placed at a

moderate level, while their level of personal achievement is judged high. In our study, we investigated three research hypotheses, such as depersonalization, personal achievement, and emotional burnout among professionals.

Investigating the first research hypothesis, our results showed no statistically significant difference in levels of depersonalization, personal achievement, and emotional exhaustion between men and women. This finding aligns with some previous studies that have also reported no significant gender differences in burnout levels [8]. However, it contradicts other research suggesting that women may experience higher emotional burnout due to additional social and family expectations [2]. This finding may be due to the fact that the sample size is quite small. Also, this may reflect women's own subjective expectations or preferences regarding gender roles, showing their need to achieve their professional goals.

The second hypothesis argued that a lack of work-life balance could lead to higher levels of depersonalization and emotional burnout. Our findings partially supported this hypothesis. Respondents who reported imbalance did experience higher levels of depersonalization and emotional burnout. This finding is consistent with previous research showing that work-life imbalance is an important predictor of burnout [9]. Partial verification may be due to the complexity of work-life balance as a concept, which can be influenced by many factors, including individual coping mechanisms, organizational support, and personal life circumstances. Finally, the third hypothesis was also partially verified. Specifically, participants who reported having a high workload and insufficient leadership/ management support experienced increased levels of depersonalization and emotional burnout. This finding seems to be consistent with the existing literature identifying high workloads and lack of administrative support as key factors contributing to burnout [6, 15-20]. The partial nature of this verification can be explained by the interaction of additional variables, such as individual resilience, support from colleagues, and the presence of other organizational stressors. The observed results can be interpreted through the prism of many theoretical frameworks. The theory of Resource Conservation (COR) [12] argues that burnout can occur when individuals perceive a loss of resources or are unable to obtain sufficient resources to cope with the demands placed on their jobs. This theory explains why work-life imbalance and inadequate leadership support are important predictors of burnout.

## CONCLUSION

As can be seen from the findings of each research study, the telecommunications sector is particularly prone to rapid technological changes and market demands, which can exacerbate the stress and burnout of employees in this sector. Companies should consider adopting comprehensive health and wellbeing programmes that include regular workload assessment, employee support mechanisms, and ongoing monitoring of burnout levels. The provision of training to managers should also focus on the importance of recognizing and addressing early signs of burnout.

The limitations of this study include the relatively small sample size. Future studies are important to be conducted, including larger samples with more reliable results. In this context, different tests may be used, such as linear regression analyses. It is also important to conduct a longitudinal study in order to achieve a better understanding of the causality of observed relationships and possibly incorporate objective measures of assessment of burnout. In addition, exploring other demographic groups and their interactions with occupational actors could provide deeper insights into the dynamics of burnout in this area.

In general, longitudinal studies to explore how burnout evolves over time or further investigating the role of gender in different contexts would provide a more comprehensive view of the next steps in this field.

## **AUTHORS' CONTRIBUTIONS**

VEF, DDV, and PT helped with the study conception, design, and data collection, performed the analysis and interpretation of results, and drafted the manuscript. All authors reviewed the results and approved the final version of the manuscript.

## LIST OF ABBREVIATIONS

- MBI = Maslach Burnout Inventory
- COR = Resource Conservation

## ETHICS APPROVAL AND CONSENT TO PARTICIPATE

This research has received the approval of the Ethics and Research Committee of the SCG - Scientific College of Greece, Greece, number TER2024-235.

#### HUMAN AND ANIMAL RIGHTS

All human research procedures followed were in accordance with the ethical standards of the committee responsible for human experimentation (institutional and national), and with the Helsinki Declaration of 1975, as revised in 2013..

## **CONSENT FOR PUBLICATION**

Informed consent was taken from all the participants.

## STANDARDS OF REPORTING

STROBE guidelines were followed.

## AVAILABILITY OF DATA AND MATERIAL

All data generated or analyzed during this study are included in this published article.

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None.

## **CONFLICT OF INTEREST**

Dr. Paraskevi Theofilou is the Coeditor in Chief of the journal The Open Public Health Journal.

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