Employee Psychosomatic Distress in the Tourism Sector: Development of the Scale of Satisfaction with Working in Hospitality

Foteini Tatsi¹, Eirini Triarchi², Fotios Tatsis³, Elena Dragioti⁴, Mary Gouva⁵* and Kostas Karamanis⁶

¹*Department of Accounting and Finance, University of Ioannina, Greece*

²*Department of Accounting and Finance, University of Ioannina, Greece*

³*Faculty of Medicine, University of Ioannina, Greece*

⁴*Research Laboratory Psychology of Patients, Families & Health Professionals, School of Health Sciences, University of Ioannina, Ioannina*

⁵*Research Laboratory Psychology of Patients, Families & Health Professionals, School of Health Sciences, University of Ioannina, Ioannina*

⁶*Kostas Karamanis: Department of Accounting and Finance, University of Ioannina, Greece*

***Corresponding Author**
Mary Gouva, Research Laboratory Psychology of Patients, Families & Health Professionals, School of Health Sciences, University of Ioannina, Ioannina

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Abstract
Purpose: *This research introduces and preliminarily validates the Scale of Satisfaction with Working in Hospitality (SWH) to assess quality of working life and psychosomatic distress among hospitality employees, addressing a gap in employee well-being understanding.*

Method: *Conducted at the University of Ioannina's Department of Accounting and Finance from April to June 2022, the study began with a 10-item SWH scale, refined to 6 items through exploratory and confirmatory factor analyses with 1,007 Greek hospitality workers. Online platforms ensured participant confidentiality and anonymity, and tools like the SF-36 Health Survey and SCL-90-R were used for enhanced validity. Data analysis utilized SPSS 22 and Jamovi 2.4.1.*

Results: *The 6-item SWH scale showed strong reliability and validity, capturing quality of working life and psychosomatic distress. Significant findings included gender differences in psychosomatic distress and positive correlations between SWH and other measures, illustrating the link between job satisfaction and aspects like health, mental well-being, and burnout vulnerability.*

Conclusions: *This study offers a significant contribution to hospitality management, providing a validated tool for assessing employee satisfaction and psychosomatic issues. It underscores the importance of employee well-being in the hospitality sector for both workforce health and customer service quality. The SWH scale emerges as a valuable instrument for future research and practical application in organizational settings, potentially enhancing job satisfaction and mental health among hospitality employees.*

Key words: Job Burnout; Psychosomatic Distress; Satisfaction; Measurement; Tourism; Hospitality

1. Introduction
In recent years, the burgeoning field of hospitality and tourism has garnered extensive academic interest, particularly in the realms of service quality and customer satisfaction [1]. The tourism industry, marked by its intricate fragmentation into various sectors and sub-sectors, plays a pivotal role in defining the consumer experience through interactions with diverse service providers. These interactions, pivotal in shaping value, quality, and satisfaction, are at the core of the tourism consumption process [1-3]. The evolution of service quality models has significantly influenced the

tourism and hospitality sectors, underscoring the direct correlation between superior service quality and heightened customer satisfaction, which in turn fosters customer loyalty [3,4]. This paradigm shift towards an experiential rather than transactional consumption process emphasizes the increasing importance of experiential marketing, risk, value, and satisfaction in shaping customer experiences [1]. For, example, one study underscores the importance of sensory experiences in marketing, indicating how these experiences, enhanced by virtual reality technologies, can significantly influence consumer behavior and satisfaction [5].

Notwithstanding these advancements, a salient lacuna persists in comprehending the dimensions of job satisfaction among personnel in tourism-centric sectors. It has been suggested that when employees are satisfied with their jobs, it significantly enhances the adequacy of marketing information within the hotel industry [6]. This research aspires to ameliorate this deficiency by delving into the subtleties of job satisfaction within the hospitality and tourism domain, a critical area that has hitherto been somewhat overlooked in academic discourse. Consequently, in this scholarly work, we introduce and preliminarily validate an innovative evaluative tool, denominated as the Scale of Satisfaction with Working in Hospitality (SWH). This tool was designed to evaluate dual facets: the overall quality of working life (Qowl) and the psychosomatic distress (PsD) encountered in the daily professional milieu of individuals employed in tourism-centric sectors.

2. Method
This study, spanning April to June 2022, was performed within the confines of the Department of Accounting and Finance at the University of Ioannina in western Greece. A rigorously formulated questionnaire, was central to this study, designed to delve into the intricacies of job satisfaction and psychosomatic issues among employees in the Greek tourism hospitality sector. This investigation comprised a two-phase approach. Initially, we developed a 10-item Scale of Satisfaction with Working in Hospitality (SWH-10), which underwent a preliminary evaluation in a pilot study. Subsequently, the scale was comprehensively validated through its application to a substantial sample of 1,007 individuals working in the hotel and hospitality industry.

Our sampling methodology was meticulously architected, balancing the imperatives of ample sample magnitude and demographic representativeness. Utilizing social media as a dissemination conduit, the questionnaire strategically targeted groups within the tourism sector, focusing particularly on hospitality personnel in short-term rental accommodations and traditional tourist lodging establishments.

The study's procedural integrity was upheld through online interviews via Google Forms, post preliminary communications. Participants, having been briefed about the study's objectives and reassured of confidentiality and anonymity, utilized a unique, self-generated code for identification purposes. This methodological approach, singularly overseen by one researcher, substantially mitigated information breach risks, fostering a trustful environment.

Participants independently completed the questionnaires on Google Forms, with the resultant data being methodically collated and analyzed through IBM's SPSS 22 and Jamovi 2.4.1 software. A comprehensive demographic information of the sample is elaborated in the results section of this study.

2.1 Measurements
Participants completed a sociodemographic questionnaire that included self-assessment items about jobs in the tourism sector, years of work, educational qualification (level of education, studies in tourism), age, gender, region, and marital status.

2.1.1 Scale of Satisfaction with Working in Hospitality (SWH)
We administered the Scale of Satisfaction with Working in Hospitality (SWH) to assess the satisfaction levels of employees in tourism sector. Initially comprising 10 items contributing to the overall score, this scale specifically measured the satisfaction of them employees within the industry. The refined version of the SWH, however, was condensed to six items and two distinct dimensions, providing a more streamlined and focused assessment tool, as described below.

2.1.2 SF-36 Health Survey (SF-36)
The SF-36 Health Survey is a short-form, multipurpose, 36-item health survey [7]. The general health of the respondent is assessed using eight scales: a) physical functioning, b) role limitations due to physical health, c) physical pain, d) general health perceptions, e) role limitations due to emotional health, f) vitality, g) mental health, and h) social role function. Two composite scores representing overall physical (PCS) and mental (MCS) health are calculated from the eight scales by summing physical functioning, role limitations due to physical health, physical pain, general health perceptions, and role limitations due to emotional health, vitality, mental health, and social role function, respectively. The Greek version of the SF-36 has been translated and validated into Greek [8].

2.1.3 Symptom Check List 90 (SCL-90-R)
The Symptom Check List 90 (SCL-90-R) is a widely used screening tool for assessing mental well-being [9]. It contains 90 items with a 5-point scale and assesses symptomatology in 9 areas: a) Somatization, b) Obsessive-Compulsive, c) Interpersonal Sensitivity, d) Depression, e) Anxiety, f) Aggression, g) Phobia, h) Paranoid Ideation, and i) Psychoticism. The average score of all 90 items yields the global severity index (GSI), which represents the overall level of distress and is suggested to be the best single indicator of the current level of the disorder [9]. Higher scores on the scales of the SCL-90-R indicate higher distress, however, it should be noted that individual scales cannot be interpreted in diagnostic categories. The Greek version of the SCL—90 R questionnaire has been translated and validated into Greek [10].

2.1.4 Maslach Burnout Inventory (MBI)

The Maslach Burnout Inventory is a psychological assessment instrument comprising 22 symptom items pertaining to occupational burnout [11]. The MBI measures three dimensions of burnout: emotional exhaustion, depersonalization, [a] and personal accomplishment [11]. In the current study, it was used the subscale of Emotional Exhaustion. Emotional Exhaustion scale including 9 items, and measures feelings of being emotionally overextended and exhausted by work. Higher scores correspond to a greater level of burnout. The Greek version of the Maslach Burnout Inventory has been translated and validated into Greek [12].

3. Development of the Scale of Satisfaction with Working in Hospitality

3.1 Item Construction and Scale Development

A comprehensive set of 10 items (presented in Table 1) was initially developed and subsequently administered to a pilot group of 257 hotel employees in Greece, consisting of 100 females and 157 males with an average age of 43.45 years. This preliminary examination of the questionnaire revealed promising psychometric properties. Specifically, the SWH scale demonstrated robust reliability, as evidenced by Cronbach's alpha values exceeding 0.70 across all items and the overall scale, aligning with the standards for assessing internal consistency in scale development [13].

	Cronbach's α
Scale	**0.880**
SWH1: Working in Hospitality aids in the development of social relations.	0.869
SWH2: I enjoy my work in the field of Hospitality.	0.852
SWH3: Working in Hospitality facilitates human interaction.	0.859
SWH4: Working in Hospitality contributes to combating one's sense of loneliness.	0.884
SWH5: Working in Hospitality helps in enhancing one's emotional mood.	0.852
SWH6: Working in hospitality may impede the development of one's personal life.	0.884
SWH7: Working in Hospitality can lead to physical health problems.	0.884
SWH8: I feel fortunate in my work within the Hospitality sector.	0.869
SWH9: Working in Hospitality cultivates feelings of financial security.	0.852
SWH10: Working in Hospitality can foster high levels of interpersonal relationships.	0.869

Table 1: Scale and Item Reliability Statistics

Over a fortnight, the 10-item Scale of SWH was distributed to a total of 1,007 participants across three distinct groups. The initial group, mirroring the pilot study's sample, consisted of 257 hotel employees (as described above). The subsequent group encompassed 289 workers in rooms (144 females and 145 males, average age 46.81 years) from Greece. The final group included 461 Airbnb workers (274 females and 187 males, average age 47.07 years), also based in Greece, thereby providing a comprehensive evaluation across various facets of the hospitality sector.

The scale, then, underwent a comprehensive evaluation through both exploratory factor analysis (EFA) with a subset of 300 participants and confirmatory factor analysis (CFA) with a subset of 707 participants. The EFA suggested a two-factor dimension, as shown in Table 2. Subsequently, when this two-factor model was then tested through CFA, the model fit did not converge. This lack of convergence means that the model was unable to find an optimal solution that adequately fits the data according to the predefined criteria, such as parameter estimates and error tolerances.

	Factor		
	1	**2**	**Uniqueness**
SWH1	0.576		0.64072
SWH2	0.893		0.21215
SWH3	0.732		0.44587
SWH4		0.898	0.18978
SWH5	0.893		0.21215
SWH6		0.997	0.00492
SWH7		0.960	0.08286
SWH8	0.579		0.63718
SWH9	0.893		0.21215
SWH10	0.732		0.44587
Note. 'Minimum residual' extraction method was used in combination with a "oblimin" rotation			

Table 2: Factor Loadings of the SWH 10-Item Scale (n1=300)

Following a systematic series of analyses, where one item was excluded at a time and considering the magnitude of factor loadings, we successfully identified a two-factor solution consisting of six items as shown in Table 3.

	Factor		
	Quality of working life (Qowl)	**Psychosomatic Distress (PsD)**	**Uniqueness**
SWH2	0.841		0.59253
SWH3	0.786		0.33226
SWH4		0.896	0.09479
SWH6		0.900	0.00499
SWH7		0.870	0.04722
SWH8	0.681		0.64445
Note. 'Minimum residual' extraction method was used in combination with a "oblimin" rotation			

**Table 3. Factor Loadings of the SWH 6-Item Scale (n1=300)**

This solution was further validated through confirmatory factor analysis (CFA) conducted with a sample size of the subset n2=707, to avoid overlapping. The results indicated that the model fit was highly satisfactory, as demonstrated in Figure 1. The χ^2 value, associated with 8 degrees of freedom, was 9.93, with a corresponding p-value of 0.270. This suggested that the model fits the data well, as the p-value exceeds the conventional significance level of 0.05 [14]. Additionally, several fit indices further supported the model's adequacy. The Root Mean Square Error of Approximation (RMSEA) was 0.0185, indicating a good fit, and its 90% confidence interval (CI) ranges from 0.00 to 0.0501 [15]. The Comparative Fit Index (CFI) and Tucker-Lewis Index (TLI) both approached 1.0, with values of 0.999, indicating an excellent fit [16,17]. The Standardized Root Mean Square Residual (SRMR) was 0.0182, signifying a favorable fit between the model and the data [18].

4. Reliability and Scale Norms
4.1 Scale Reliabilities and Intercorrelations
The internal consistencies of the two subscales, as well as their intercorrelations for males and females separately, based on the data from the whole sample are presented in Table 4. All two subscales showed adequate internal consistencies, as demonstrated by Cronbach's alpha ranging from 0.81 to 0.95. The intercorrelations among the two subscales are generally quite low, indicating that they measure dimensions that are relatively distinct from one another.
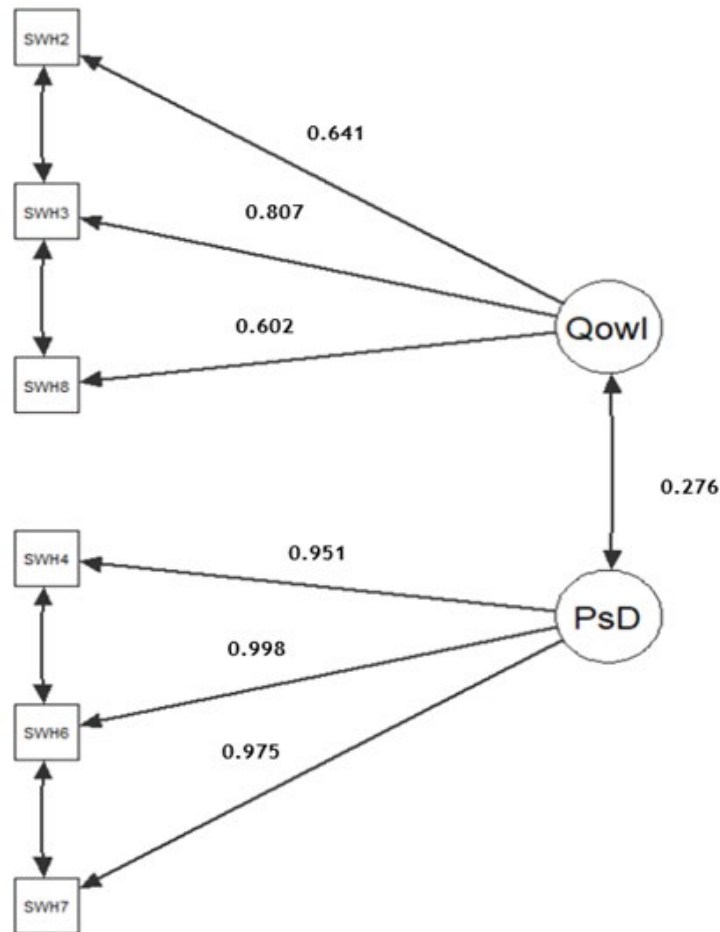
Figure 1: Path diagram of the factor structure of the SWH 6-Item Scale

Test-retest reliabilities were calculated using data from a cohort of 200 participants, comprising 95 males and 105 females. These participants were administered the scale on two separate occasions, spaced one week apart. The reliabilities for the Quality of Working lif (Qowl) and Psychosomatic Distress (PsD) subscales were 0.81 and 0.90, respectively, with all p-values being less than 0.001.

	Quality of working life (Qowl)	Psychosomatic Distress (PsD)
Quality of working life	0.810	0.28***
Psychosomatic Distress	0.22***	0.954
Note: Cronbach a-coefficients (total sample) are on the diagonal. Correlations for males are above the diagonal, for females below the diagonal. *** p < 0.001		

Table 4: Cronbach's a for all participants (n=1007) and intercorrelations of the two sub-scales on the SWH of for males (n=491) and females (n=516) separately

4.2. Scale Norms and Sex Differences

Table 5 displays the means and standard deviations for each of the two subscales, delineated for the entire sample as well as for males and females separately, based on data from 1,007 participants. Additionally, the table includes the significance levels of t-tests conducted to compare male and female scores. Males scored significantly higher than females on both scales. Notably, the difference in scores for Psychosomatic Distress was statistically significant (p = .002).

	Total Sample Mean±SD	t test		
		Males Mean±SD	Females Mean±SD	p-value
Quality of working life	9.36±4.90	9.55±5.12	9.18±4.69	0.280
Psychosomatic Distress	20.88±2.73	21.16±1.87	20,62±3.33	0.002

Table 5: Means and standard deviations for the two scales on the Scale of SWH for all participants, and for males and females separately (491 males, 516 females)

4.3. Correlations with other related measures

Participants have also completed several other measures relating to quality of life, burnout, and psychopathology. Table 6 presents the correlations between the Scale of SWH and the dimensions of Emotional Exhaustion, SF36 and SCL-90. The two factors Scale of Satisfaction with Working in correlated positively with all aspects of Emotional Exhaustion (MBI) (p<.001), Physical component score (SF36) (p<.001), Mental component score (SF36) (p<.001), and global severity index (SCL-90) (p<.001).

	Emotional Exhaustion MBI	Physical component score (SF-36 - PCS)	Mental component score (SF-36 - MCS)	GSI (SCL-90)
Quality of working life	0.441	0.529	0.568	0.616
Psychosomatic Distress	0.568	0.442	0.479	0.511

Table 6. Pearson Correlation Coefficients Between the sub-scales of SWH and Burnout, SF36 and SCL-90 Scores, Total Sample (N = 1007)

5. Discussion

This investigation, undertaken at the University of Ioannina's Department of Accounting and Finance, unveiled profound insights into the fields of job satisfaction and psychosomatic phenomena amongst personnel in Greece's tourism and hospitality industry. Additionally, the exploration of employee satisfaction within the hospitality sector assumes paramount importance, as it is intricately linked to the quality of service delivered to customers. The correlation between employee well-being and customer satisfaction has been a focal point in hospitality research, underscoring the notion that contented employees are more likely to provide superior service, thereby enhancing the overall customer experience [1]. This interconnection might suggest that investments in employee satisfaction can yield significant dividends in terms of customer satisfaction and loyalty. For instance, very early research by Heskett et al. demonstrated the ripple effect of employee satisfaction on customer loyalty and profitability [19]. Additionally, a study by Harter, Schmidt, and Hayes (2002) provided empirical evidence linking employee engagement and satisfaction with customer satisfaction and business performance.

By understanding and improving job satisfaction and psychosomatic health among hospitality employees, organizations can not only enhance the well-being of their staff but also potentially elevate the quality of service provided to customers, thereby contributing to the overall success and reputation of the hospitality establishment. This multifaceted impact underscores the value of the SWH scale, not only as a tool for assessing employee well-being but also as an instrument for identifying areas where interventions can lead to improved customer experiences and business outcomes. Incorporating these insights into the current study highlights the broader implications of the research findings.

The crux of this research lies in the meticulous development and subsequent validation of the Scale of Satisfaction with Working in Hospitality (SWH). Originating as a 10-item tool, the SWH was artfully distilled into a more succinct 6-item version through a rigorous process of exploratory and confirmatory factor analyses. The refined scale, distinguished by its robust reliability and validity, adeptly encapsulates two pivotal dimensions: the Quality of Working life and Psychosomatic Distress. A finding of particular note is the discernible disparity in psychosomatic distress scores between male and female respondents, with males exhibiting elevated levels. This observation is in harmony with existing scholarly discourse that highlights gender disparities in occupational stress and contentment, as exemplified in the research by Hochwarter and colleagues, contributing to our understanding of how gender can influence occupational stress and satisfaction [20]. Employing also well-established evaluative instruments such as the SF-36 Health Survey and the Symptom Check List 90 (SCL-90-R) to supplement the assessment significantly bolsters the study's veracity. The positive correlation between the SWH and SCL-90 suggests that higher work satisfaction is linked to lower levels of psychopathological symptoms. This is a significant finding as it underscores the impact of job satisfaction on mental health, aligning with studies that have highlighted the relationship between work environments and psychological well-being [24]. These results echo the findings of Anagnostopoulos, Niakas, and Pappa, who authenticated the Greek rendition of the SF-36, thereby emphasizing the integral role of comprehensive health surveys in occupational research [8]. Additionally, emotional exhaustion, a dimension of the Maslach Burnout Inventory, is a critical factor in understanding overall job satisfaction and employee mental health. The positive correlation between SWH and emotional exhaustion suggests that higher job satisfaction is associated with

a lower risk of burnout. This connection is critical because burnout can significantly impact an employee's performance at work and their overall quality of life [21-23].

This study's principal strength lies in its expansive sample size and the heterogeneous representation of participants, encompassing various strata within the hospitality sector. Moreover, the methodological diligence exhibited in the scale's development and validation is noteworthy. Nonetheless, the study is not devoid of limitations. The reliance on self-reported data could potentially introduce subjective biases, and the cross-sectional nature of the study curtails the capacity to establish causality. Additionally, the exclusive focus on the Greek tourism hospitality sector may impinge upon the broader applicability of the findings [25,26].

6. Conclusion
In summation, this study constitutes a significant advancement in decoding job satisfaction and psychosomatic concerns within the hospitality domain, especially pertinent to the Greek milieu. The creation of the SWH scale emerges as an invaluable asset for future scholarly inquiries and practical implementations in organizational contexts. Prospective research could enrich this foundation by delving into longitudinal analyses and embracing a more global perspective, thereby augmenting the universality of these insights. This study not only illuminates the current landscape of employee welfare in the hospitality sector but also lays the groundwork for targeted initiatives aimed at augmenting job satisfaction and mental health among workers in this field.

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Conflict of interest statement
The authors have no conflict of interest to declare.

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