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Posted Date: 29 July 2025

doi: 10.20944/preprints202507.2347.v1

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*Article*

# Resilience Protects Nurses from Workplace Gaslighting and Quiet Quitting, And Improves Their Work Engagement: A Cross-Sectional Study in Greece

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**Abstract**

**Background:** Although workplace gaslighting is an alarming issue, literature on predictors of this phenomenon is scarce. **Objective:** To examine the association between resilience and workplace gaslighting, quiet quitting, and work engagement among nurses. **Methods:** We conducted an online cross-sectional study with a convenience sample. We collected our data in Greece during December 2024. We used the Brief Resilience Scale (BRS) to measure levels of resilience in our sample. Moreover, we used the Gaslighting at Work Scale (GWS), the Quiet Quitting Scale, and the Utrecht Work Engagement Scale-3 to measure workplace gaslighting, quiet quitting, and work engagement, respectively. **Results:** The study population included 462 nurses with a mean age of 36.80 years (standard deviation; 10.49). We found that resilience protected nurses from workplace gaslighting. After adjusting for gender, age, educational level, and work experience, a negative association was found between resilience and GWS score (b = -0.427, 95% CI = -0.551 to -0.304, p<0.001), loss of self-trust (b = -0.387, 95% CI = -0.514 to -0.260, p<0.001), and abuse of power (b = -0.461, 95% CI = -0.595 to -0.327, p<0.001). Moreover, our multivariable analysis identified a negative association between resilience and QQS score (b = -0.324, 95% CI = -0.415 to -0.232, p<0.001), detachment (b = -0.216, 95% CI = -0.325 to -0.107, p<0.001), lack of initiative (b = -0.419, 95% CI = -0.535 to -0.303, p<0.001), and lack of motivation (b = -0.396, 95% CI = -0.521 to -0.271, p<0.001). Additionally, we identified a positive relationship between resilience and work engagement (b = 0.506, 95% CI = 0.312 to 0.700, p<0.001). **Conclusion:** Our findings suggested the protective role of resilience against workplace gaslighting and quiet quitting in nurses. Moreover, we found that resilience improved nurses' work engagement. Appropriate interventions should be implemented to improve nurses' resilience to increase their work productivity.

**Keywords:** resilience; nurses; workplace gaslighting; Gaslighting at Work Scale; quiet quitting; work engagement

## 1. Introduction

The nursing work environment is exceptionally challenging and stressful. Nurses frequently deal with trauma and terminally ill patients, experience workplace violence, and lack organizational

 doi:10.20944/preprints202507.2347.v1



support and essential resources [1,2]. Within this context, resilience is an important asset for nurses to cope and continue their work effectively. Resilience can be defined as "*a complex and dynamic process which, when present and sustained, enables nurses to adapt positively to workplace stressors, avoid psychological harm, and continue to provide safe, high-quality patient care*" [3]. Nurses exhibiting elevated resilience levels encounter reduced prevalence of burnout, secondary traumatic stress, depression, and turnover, concurrently displaying heightened self-esteem, life and job satisfaction [4–6]. Moreover, resilience guarantees the safety of patients and nurses by improving the safety climate and performance of nurses, hence decreasing occupational accidents [7,8]. The benefits of resilience also enhance the overall quality of patient care, as resilience mitigates the adverse effects of compassion fatigue among nurses on care quality [9]. Throughout the COVID-19 pandemic, when nurses faced a significant number of challenges, resilience emerged as a protective factor mitigating the burnout resulting from the pandemic's effects on their personal and professional lives [10]. Alongside biological components, numerous environmental factors, especially resources, also influence resilience [11]. Nursing leadership and management have a crucial role in obtaining essential resources for cultivating resilience. By engaging in behaviors that enhance social relationships, promote positivity, leverage nurses' strengths, cultivate their growth, encourage self-care, support mindfulness practices, and express compassion, nursing leaders can strengthen the resilience of their staff [12]. Nurses who received organizational support and opportunity to engage in policy and procedure development during the COVID-19 pandemic exhibited elevated levels of resilience [13].

However, nurses often not only fail to receive organizational support, but also fall victim to psychological manipulation by their supervisors through gaslighting. The term "gaslighting" originated in a 1944 film centered on a couple's relationship. Subsequently, stories emerged indicating that mentally sound individuals were victims of gaslighting, being confined in institutions for money or other benefits by those in their proximity. Subsequently, incidents emerged of gaslighting victims being hospitalized, and ultimately, there are accounts of elderly individuals being subjected to gaslighting by care home personnel or relatives in their residences for financial exploitation [14]. Stern, author and psychoanalyst, provides the following definition of gaslighting in the introduction to the second edition of her book "*Gaslighting, is a type of emotional manipulation in which a gaslighter tries to convince you that you're misremembering, misunderstanding, or misinterpreting your own behaviors or motivations, thus creating doubt in your mind that leaves you vulnerable or confused*" [15]. The aims for gaslighting conduct may encompass material and financial advantages, albeit they are not confined to these aspects. Additional motivations for this activity may encompass the gaslighter's insecurity, the desire to be right, to exert control, to eliminate any potential for disagreement, and the urge to alleviate their anxiety through projective identification [14,16,17]. Gaslighters employ multiple tactics to attain their objectives, including denial (refusing to recognize truths despite evidence, substituting dismissive statements for dialogue), deception, dismissal, minimization, behavioral inconsistency, isolation, and coercion [17]. The consequences of gaslighting are extensive and primarily impact the mental well-being of victims, encompassing withdrawal from interpersonal and social contexts, anxiety, guilt, depression, grief, suicidal ideation and actions, and compromised mental health. Experiencing gaslighting behavior heightens the likelihood of developing post-traumatic stress disorder (PTSD), which may manifest as flashbacks, nightmares, anxiety, social withdrawal, apathy, hypervigilance, insomnia, or recurrent anger outbursts [18]. Studies on gaslighting in the workplace, although limited, have highlighted its effects on employees, including its negative impact on job embeddedness, motivation, and affective organizational commitment [19,20]. In the healthcare sector, nurses who are victims of gaslighting are more likely to experience burnout, express an intention to leave their job, and have their career entrenchment and agility negatively affected [21–23].

In recent years, work engagement has garnered attention, as an international research conducted across 160 countries, involving over 200,000 employees from various industries in both the private and governmental sectors, revealed that only one in five employees is engaged at work [24]. Engaged employees exhibit considerable energy and mental resilience, display enthusiasm and pride in their

 doi:10.20944/preprints202507.2347.v1



work, get inspiration from it, and become so engrossed that they lose track of time while working [25]. Engaged nurses exhibit heightened job satisfaction and enhanced performance, manage daily work demands more efficiently, and express reduced inclinations to leave their positions [26–28]. Simultaneously, nurses work engagement serves as a predictor of care quality [28,29]. As in the case of resilience, supportive nursing leadership that responds to nurses' needs can enhance work engagement, while a poor work environment limits it [30,31]. Also, when nurses cultivate a high degree of resilience, they seem to exhibit greater engagement in their work [32,33].

Quiet quitting is a work behavior that has been progressively prevalent since the COVID-19 pandemic. Initially revealed via a brief video on social media, it soon became evident that a significant proportion of employees were already engaging in this behavior [34,35]. Employees who choose for quiet quitting do not formally resign but restrict their performance to the minimum required to evade termination. They fail to articulate novel concepts, refrain from working beyond regular hours, and typically have a passive disposition toward their tasks [35,36]. Despite the apparent paradox of nurses opting to quiet quitting, considering the demanding and continuous nature of patient care, findings indicate that a significant proportion of nurses engage in this work behavior more frequently than other healthcare professionals [37–39]. Job burnout and dissatisfaction excessive workload, insufficient recognition of nurses' efforts, bullying, workplace conflicts, perceived injustice, and stress have been identified as factors associated with the emergence of this work behavior [38,40–44]. Conversely, perceived workplace support and innovation support mitigate this phenomenon [40,45]. Nurses who choose quiet quitting are not "comfortable" with this condition for the rest of their working lives. Essentially, quiet quitting is an attempt to protect themselves in a particularly demanding and unsupportive work environment, while at the same time seeking a way out, as they have higher turnover intention rates [46].

To the best of our knowledge, this is the first study that investigated the association between resilience and workplace gaslighting and quiet quitting, and one of the few that explored resilience and work engagement among nurses.

## 2. Materials and Methods

### *2.1 Study Design*

A cross-sectional study was implemented in Greece, with data gathered through an online survey in December 2024. The study questionnaire was digitized using Google forms and distributed via nurses' social media groups on Facebook and Instagram, as well as through LinkedIn messages. This method resulted in a convenience sample. Participants were required to be clinical nurses in healthcare facilities, subordinates rather than supervisors, have at least one year of work experience, and consent to study participation. The study adhered to the Strengthening the Reporting of Observational studies in Epidemiology (STROBE) guideline [47].

We used G*Power v.3.1.9.2 to calculate our sample size. We included one predictor (resilience) and four confounders (gender, age, educational level, and work experience) in our models. Thus, considering an anticipated effect size of 0.03 between resilience and outcomes (workplace gaslighting, quiet quitting, and work engagement), a statistical power of 95%, and a margin of error of 5%, the sample size was estimated to be 436 nurses.

### *2.2 Measurements*

We measured the following demographic data: gender (males or females), age (continuous variable), educational level (MSc/PhD diploma), and work experience (continuous variable).

Resilience was evaluated using the Brief Resilience Scale (BRS), a six-item instrument with items like "I tend to bounce back quickly after hard times" and "I have a hard time making it through stressful events" [48]. Responses were recorded on a 5-point Likert scale ranging from strongly disagree (1) to strongly agree (5). The BRS total score spans from 1 to 5, with higher scores indicating

 doi:10.20944/preprints202507.2347.v1



greater resilience. The validated Greek version of the BRS was utilized [49], yielding a Cronbach's alpha of 0.805 in our study.

The Gaslighting at Work Scale (GWS) was employed to assess workplace gaslighting among nurses [50]. This 11-item scale includes statements such as “In the last six months, your supervisor denies saying things that you remember him/her saying”, “In the last six months, your supervisor lies to you”, and “In the last six months, your supervisor makes you depend on him/her for making decisions about your work”. The GWS comprises two factors: "loss of self-trust" (five items) and "abuse of power" (six items). Responses are recorded on a five-point Likert scale from never (1) to always (5). The GWS score and its two factors are calculated as the average of all answers, ranging from 1 to 5, with higher scores indicating more frequent gaslighting behaviors from supervisors. The Greek version of the GWS was used, demonstrating a Cronbach's alpha of 0.940. The "loss of self-trust" and "abuse of power" factors showed Cronbach's alpha values of 0.902 and 0.904, respectively.

To assess quiet quitting among nurses, we employed the Quiet Quitting Scale (QQS) [51]. This instrument comprises nine items, such as “I do the basic or minimum amount of work without going above and beyond”, “I take as many breaks as I can”, and “I do the basic or minimum amount of work without going above and beyond”. Responses are recorded on a five-point Likert scale, ranging from 1 (strongly disagree/never) to 5 (strongly agree/always). The QQS encompasses three factors: "detachment" (four items), "lack of initiative" (three items), and "lack of motivation" (two items). Each factor's score is calculated as the mean of its item responses, resulting in a range of 1 to 5. Higher scores indicate increased levels of quiet quitting. We utilized the validated Greek version of the QQS . In our study, the Cronbach's alpha for the QQS was 0.851. Additionally, Cronbach's alpha for the factors "detachment," "lack of initiative," and "lack of motivation" was 0.812, 0.763, and 0.797, respectively [39].

Work engagement was measured using the Utrecht Work Engagement Scale-3 (UWES-3) [39,52]. This three-item tool includes questions like "At my work, I feel bursting with energy", with responses on a seven-point Likert scale from never (0) to every day (6). The UWES-3 mean score ranges from 0 to 6, with higher scores signifying greater work engagement. The validated Greek version of the UWES-3 was utilized, yielding a Cronbach's alpha of 0.765 in this study [53].

### *2.3 Ethical Issues*

Our study adhered to the Declaration of Helsinki guidelines [54]. The Ethics Committee of the Faculty of Nursing, National and Kapodistrian University of Athens approved our study protocol (approval number; 15, December 9, 2024). Data collection was conducted anonymously and voluntarily. Participants were informed about the study's aim and design and provided their informed consent.

### *2.4 Statistical Analysis*

We present categorical variables as numbers and percentages, while continuous variables are described using mean, standard deviation (SD), median, and interquartile range. The Kolmogorov-Smirnov test and Q-Q plots were used to examine the distribution of continuous variables, which were found to follow a normal distribution. Resilience was the independent variable, while workplace gaslighting, quiet quitting, and work engagement were the dependent variables. Demographic variables (gender, age, educational level, and work experience) were considered potential confounding factors. To identify associations between resilience, workplace gaslighting, quiet quitting, and work engagement, we conducted simple and multivariable linear regression analyses. We first performed simple linear regression analysis, followed by the construction of a final multivariable model. This model eliminated confounders to estimate the independent effect of resilience on the dependent variables. Age and work experience showed high correlation (Pearson's correlation coefficient = 0.946, p-value < 0.001). To avoid multicollinearity issues in the multivariable models, we included work experience rather than age in these models. We present unadjusted and adjusted coefficients beta, 95% confidence intervals (CI), and p-values. P-values less than 0.05 were

 doi:10.20944/preprints202507.2347.v1



considered statistically significant. We used the IBM SPSS 28.0 (IBM Corp. Released 2021. IBM SPSS Statistics for Windows, Version 28.0. Armonk, NY: IBM Corp) for the analysis.

## 3. Results

### *3.1 Demographic Characteristics*

Table 1 presents the demographic profile of the nurses in the study. The sample consisted of 462 nurses, predominantly female (85.3%). The average age was 36.8 years (SD: 10.49), with a median of 35.5 years (interquartile range; 16). More than half of nurses possessed a MSc/PhD diploma (54.3%). The mean work experience was 12.84 years (SD: 10.11), with a median of 10 years (interquartile range; 16).

**Table 1.** Demographic characteristics of nurses (N=462).

| Characteristics | N | % |
|---|---|---|
| Gender | | |
| Males | 68 | 14.7 |
| Females | 394 | 85.3 |
| Age (years)[a] | 36.80 | 10.49 |
| MSc/PhD diploma | | |
| No | 211 | 45.7 |
| Yes | 251 | 54.3 |
| Work experience (years)[a] | 12.84 | 10.11 |

[a] mean, standard deviation

### *3.2 Study Scales*

Table 2 outlines the descriptive statistics for the study scales. Mean resilience score (3.31, SD; 0.68) indicated a moderate level of resilience among our nurses.

The GWS mean score was 2.57 (SD; 0.95), with "loss of self-trust" and "abuse of power" factors scoring 2.25 and 2.84, respectively. This indicates moderate levels of gaslighting behaviors from supervisors, with abuse of power being more prevalent than loss of self-trust. Quiet quitting levels were moderate (QQS mean: 2.42), with lack of motivation (mean: 2.81) occurring more frequently than lack of initiative (mean: 2.44) and detachment (mean: 2.22). Work engagement was moderate, with a UWES-3 mean score of 3.48 (SD: 1.46).

**Table 2.** Descriptive statistics for the study scales (N=462).

| Scale | Mean | Standard deviation | Median | Interquartile range |
|---|---|---|---|---|
| Resilience | 3.31 | 0.68 | 3.33 | 1.00 |
| Gaslighting at Work Scale | 2.57 | 0.95 | 2.45 | 1.55 |
| Loss of self-trust | 2.25 | 0.97 | 2.00 | 1.60 |
| Abuse of power | 2.84 | 1.03 | 2.83 | 1.67 |
| Quiet Quitting Scale | 2.42 | 0.71 | 2.33 | 0.89 |
| Detachment | 2.22 | 0.82 | 2.00 | 1.00 |
| Lack of initiative | 2.44 | 0.90 | 2.33 | 1.33 |
| Lack of motivation | 2.81 | 0.96 | 2.50 | 1.50 |
| Utrecht Work Engagement Scale-3 | 3.48 | 1.46 | 3.67 | 2.67 |

### *3.3 Association Between Resilience and Workplace Gaslighting*

Table 3 reveals that resilience protected nurses from workplace gaslighting. After adjusting for gender, age, educational level, and work experience, a negative association was found between resilience and GWS score (b = -0.427, 95% CI = -0.551 to -0.304, p<0.001), loss of self-trust (b = -0.387,

 doi:10.20944/preprints202507.2347.v1



95% CI = -0.514 to -0.260, p<0.001), and abuse of power (b = -0.461, 95% CI = -0.595 to -0.327, p<0.001). Thus, more resilient nurses experienced lower levels of gaslighting from their supervisors.

**Table 3.** Linear regression models with workplace gaslighting as the dependent variable (N=462).

| Dependent variable<br>Independent variable | Univariate models | | | Multivariable model[a] | | |
|---|---|---|---|---|---|---|
| | Unadjusted coefficient beta | 95% CI for beta | P-value | Adjusted coefficient beta | 95% CI for beta | P-value |
| Loss of self-trust[b] | | | | | | |
| Resilience | -0.376 | -0.502 to -0.249 | <0.001 | -0.387 | -0.514 to -0.260 | <0.001 |
| Abuse of power[c] | | | | | | |
| Resilience | -0.461 | -0.593 to -0.328 | <0.001 | -0.461 | -0.595 to -0.327 | <0.001 |
| Workplace gaslighting[d] | | | | | | |
| Resilience | -0.422 | -0.544 to -0.300 | <0.001 | -0.427 | -0.551 to -0.304 | <0.001 |

[a] Multivariable models are adjusted for gender, age, educational level, and work experience;[b] $R^2$ for the multivariable model = 8.5%, p-value for ANOVA < 0.001;[c] $R^2$ for the multivariable model = 10.7%, p-value for ANOVA < 0.001;[d] $R^2$ for the multivariable model = 10.8%, p-value for ANOVA < 0.001;CI: confidence interval

*3.4 Association Between Resilience And Quiet Quitting*

Linear regression analysis results for resilience and quiet quitting are presented in Table 4. After controlling for confounding factors, a negative relationship was observed between resilience and quiet quitting. In particular, we found a negative association between resilience and QQS score (b = -0.324, 95% CI = -0.415 to -0.232, p<0.001), detachment (b = -0.216, 95% CI = -0.325 to -0.107, p<0.001), lack of initiative (b = -0.419, 95% CI = -0.535 to -0.303, p<0.001), and lack of motivation (b = -0.396, 95% CI = -0.521 to -0.271, p<0.001). Thus, our findings suggested the protective role of resilience against quiet quitting among our nurses.

**Table 4.** Linear regression models with quiet quitting as the dependent variable (N=462).

| Dependent variable<br>Independent variable | Univariate models | | | Multivariable model[a] | | |
|---|---|---|---|---|---|---|
| | Unadjusted coefficient beta | 95% CI for beta | P-value | Adjusted coefficient beta | 95% CI for beta | P-value |
| Detachment[b] | | | | | | |
| Resilience | -0.181 | -0.290 to -0.072 | <0.001 | -0.216 | -0.325 to -0.107 | <0.001 |
| Lack of initiative[c] | | | | | | |
| Resilience | -0.416 | -0.531 to -0.300 | <0.001 | -0.419 | -0.535 to -0.303 | <0.001 |
| Lack of motivation[d] | | | | | | |
| Resilience | -0.403 | -0.527 to -0.278 | <0.001 | -0.396 | -0.521 to -0.271 | <0.001 |
| Quiet Quitting Scale[e] | | | | | | |
| Resilience | -0.309 | -0.401 to -0.217 | <0.001 | -0.324 | -0.415 to -0.232 | <0.001 |

[a] Multivariable models are adjusted for gender, age, educational level, and work experience;[b] $R^2$ for the multivariable model = 5.6%, p-value for ANOVA < 0.001;[c] $R^2$ for the multivariable model = 12.6%, p-value for

 doi:10.20944/preprints202507.2347.v1



ANOVA < 0.001;[d] $R^2$ for the multivariable model = 10.4%, p-value for ANOVA < 0.001;[e] $R^2$ for the multivariable model = 12.4%, p-value for ANOVA < 0.001;CI: confidence interval.

*3.5 Association Between Resilience And Work Engagement*

Our multivariable model identified a positive relationship between resilience and work engagement score (b = 0.506, 95% CI = 0.312 to 0.700, p<0.001). Therefore, our results suggested that resilience improves nurses' work engagement. Table 5 shows the linear regression analysis with work engagement as the dependent variable.

**Table 5.** Linear regression models with work engagement as the dependent variable (N=462).

| Dependent variable | Univariate models | | | Multivariable model[a] | | |
|---|---|---|---|---|---|---|
| Independent variable | Unadjusted coefficient beta | 95% CI for beta | P-value | Adjusted coefficient beta | 95% CI for beta | P-value |
| Work engagement[b] | | | | | | |
| Resilience | 0.501 | 0.310 to 0.691 | <0.001 | 0.506 | 0.312 to 0.700 | <0.001 |

[a] Multivariable model is adjusted for gender, age, educational level, and work experience;[b] $R^2$ for the multivariable model = 5.7%, p-value for ANOVA < 0.001;CI: confidence interval

## 4. Discussion

This study is the first to highlight the significant negative association between nurses' resilience and both workplace gaslighting and quiet quitting, as well as the positive impact of resilience on work engagement. The findings of the present study also indicated moderate levels of quiet quitting and work engagement.

Various forms of detrimental leadership, such as abusive, toxic, and manipulative leadership styles, including gaslighting, exercised by nurse supervisors affect a significant proportion of nursing staff and have a considerable impact on their mental health and work behavior [55,56]. Since such behaviors often go unnoticed by upper management, either due to underreporting or the administration's inability to effectively address them, nurses must be equipped with capacity to cope with these challenges. One such capacity is resilience, which enables nurses to respond to, adapt to, and recover effectively from difficult, stressful, or traumatic situations, including those arising from harmful leadership practices. When nurses are exposed to incidents of violence or inappropriate behavior, regardless of the source, their level of resilience may moderate the negative effects of such experiences [57,58]. Resilience is an important skill for nurse managers as well; those with high levels of resilience are more likely to exhibit empowering behaviors toward their staff [59]. When nurse managers adopt leadership styles such as authentic, exemplary, ethical, and transformational, they are better positioned to support nurses' resilience in highly demanding work environments, such as those experienced during the COVID-19 pandemic [60].

Quiet quitting and low work engagement have emerged as two of the most prevalent workplace behaviors across all sectors, including healthcare. In recent years, attention in the health sector has primarily focused on care outcomes, with patient safety and quality of care being the foremost priorities. However, it is crucial to acknowledge that frontline healthcare personnel, such as nursing staff, present the most vital resource within health systems, and it is through their contributions that optimal outcomes are achieved. High levels of work engagement and low levels of quiet quitting among nurses are associated with reduced turnover intentions, enhanced performance, and improved quality of care [27,46,61]. Increased levels of resilience among nurses are associated with a corresponding enhancement in their work engagement [62,63]. Given that patient care is characterized by high levels of stress, nurses with elevated levels of work engagement and resilience

 doi:10.20944/preprints202507.2347.v1



experience a reduced impact of stress on the development of occupational burnout [64], while also exhibiting better mental health outcomes [65].

Nursing administration plays a critical role in fostering nurses' resilience. Administrative strategies that include the provision of formal education programs, social support, and meaningful recognition have been associated with enhanced resilience [66]. Additional approaches, such as strengthening professional ability, promoting shared governance, encouraging teamwork and mutual support among colleagues, and supporting nursing staff development (professional, practice-based, and personal), have also been identified as significant predictors of resilience development among nurses [66–68].

Our study faced various constraints. Primarily, the cross-sectional nature of our study prevented us from establishing causality between resilience, workplace gaslighting, quiet quitting, and work engagement. Additionally, while we met the minimum sample size requirements, our use of convenience sampling introduced selection bias. For example, our participants were predominantly female, necessitating future studies with random, more representative nursing samples. Furthermore, as our study was conducted in a European country, additional research in diverse cultural contexts is needed to further explore the association between resilience, workplace gaslighting, quiet quitting, and work engagement. Although we employed multivariable models to control for several confounding factors, other potential confounders such as public or private sector employment, clinical settings, and personality traits of supervisors or subordinates were not accounted for. Future research should address these additional confounders to strengthen our findings. Lastly, despite using validated instruments (BRS, GWS, QQS, and UWES-3) to evaluate our study variables, the self-reported nature of these tools may have introduced information bias into our study

## 5. Conclusions

Nurses are continuously exposed to challenges and difficulties within their work environment. In order to effectively cope with these challenges and continue performing their duties, resilience is essential. According to the findings of the present study, resilience serves a protective role against the emergence of quiet quitting and diminished work engagement, while also shielding nursing staff from the effects of workplace gaslighting. As an increasing number of nurses report disengagement and adopt quiet quitting behaviors, factors that negatively impact the quality of care, there is a pressing need for healthcare organizations to strengthen nurses' resilience. Enhancing resilience should be regarded as a critical organizational intervention aimed at improving work engagement and mitigating the prevalence of quiet quitting among nursing professionals.

**Author Contributions:** Conceptualization, I.M., A.K. and P.G.; methodology, I.M., I.V.P., O.K. and P.G.; software, O.K. and P.G.; validation, I.M., I.V.P., A.K., M.R., I.P. and P.G.; formal analysis, A.K., O.K. and P.G.; investigation, I.M., M.K., I.P. and A.K.; resources, O.K., M.R., I.M., A.K., I.V.P. and P.G.; data curation, O.K. and P.G.; writing—original draft preparation, I.M., A.K., I.V.P., O.K., I.P., M.R. and P.G.; writing—review and editing, I.M., A.K., I.V.P., O.K., I.P., M.R. and P.G.; visualization, A.K. and P.G.; supervision, P.G.; project administration, I.M. and P.G. All authors have read and agreed to the published version of the manuscript.

**Funding:** This research received no external funding.

**Institutional Review Board Statement:** The study was conducted in accordance with the Declaration of Helsinki and approved by the Ethics Committee of the Faculty of Nursing, National and Kapodistrian University of Athens approved our study protocol (approval number; 15, December 9, 2024).

**Informed Consent Statement:** Informed consent was obtained from all subjects involved in the study.

**Data Availability Statement:** The data presented in this study are openly available in FigShare at https://doi.org/10.6084/m9.figshare.29651672.

**Acknowledgments:** We acknowledge all the participants who make this study possible.

 doi:10.20944/preprints202507.2347.v1



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

## References


1. Avander, K.; Heikki, A.; Bjerså, K.; Engström, M. Trauma Nurses' Experience of Workplace Violence and Threats: Short- and Long-Term Consequences in a Swedish Setting. *Journal of Trauma Nursing | JTN* **2016**, *23*, 51, doi:10.1097/JTN.0000000000000186.
2. Galanis, P.; Vraka, I.; Fragkou, D.; Bilali, A.; Kaitelidou, D. Nurses' Burnout and Associated Risk Factors during the COVID-19 Pandemic: A Systematic Review and Meta-Analysis. *Journal of Advanced Nursing* **2021**, *77*, 3286–3302, doi:10.1111/jan.14839.
3. Cooper, A.L.; Brown, J.A.; Rees, C.S.; Leslie, G.D. Nurse Resilience: A Concept Analysis. *International Journal of Mental Health Nursing* **2020**, *29*, 553–575, doi:10.1111/inm.12721.
4. Hudgins, T.A. Resilience, Job Satisfaction and Anticipated Turnover in Nurse Leaders. *Journal of Nursing Management* **2016**, *24*, E62–E69, doi:10.1111/jonm.12289.
5. Ang, S.Y.; Hemsworth, D.; Uthaman, T.; Ayre, T.C.; Mordiffi, S.Z.; Ang, E.; Lopez, V. Understanding the Influence of Resilience on Psychological Outcomes — Comparing Results from Acute Care Nurses in Canada and Singapore. *Applied Nursing Research* **2018**, *43*, 105–113, doi:10.1016/j.apnr.2018.07.007.
6. Foster, K.; Roche, M.; Delgado, C.; Cuzzillo, C.; Giandinoto, J.-A.; Furness, T. Resilience and Mental Health Nursing: An Integrative Review of International Literature. *International Journal of Mental Health Nursing* **2019**, *28*, 71–85, doi:10.1111/inm.12548.
7. Aghaei, H.; Askaripoor, T.; Siadat, M.; Saleh, E. Enhancing Hospital Safety: The Impact of Resilience on Safety Climate, Safety Performance, and Occupational Accidents. *PLOS ONE* **2025**, *20*, e0328062, doi:10.1371/journal.pone.0328062.
8. Walpita, Y.N.; Arambepola, C. High Resilience Leads to Better Work Performance in Nurses: Evidence from South Asia. *Journal of Nursing Management* **2020**, *28*, 342–350, doi:10.1111/jonm.12930.
9. Labrague, L.J.; de los Santos, J.A.A. Resilience as a Mediator between Compassion Fatigue, Nurses' Work Outcomes, and Quality of Care during the COVID-19 Pandemic. *Applied Nursing Research* **2021**, *61*, 151476, doi:10.1016/j.apnr.2021.151476.
10. Moisoglou, I.; Katsiroumpa, A.; Malliarou, M.; Papathanasiou, I.V.; Gallos, P.; Galanis, P. Social Support and Resilience Are Protective Factors against COVID-19 Pandemic Burnout and Job Burnout among Nurses in the Post-COVID-19 Era. *Healthcare* **2024**, *12*, 710, doi:10.3390/healthcare12070710.
11. Southwick, S.M.; Bonanno, G.A.; Masten, A.S.; Panter-Brick, C.; Yehuda, R. Resilience Definitions, Theory, and Challenges: Interdisciplinary Perspectives. *European Journal of Psychotraumatology* **2014**, *5*, 25338, doi:10.3402/ejpt.v5.25338.
12. Wei, H.; Roberts, P.; Strickler, J.; Corbett, R.W. Nurse Leaders' Strategies to Foster Nurse Resilience. *J Nurs Manag* **2019**, *27*, 681–687, doi:10.1111/jonm.12736.
13. Jo, S.; Kurt, S.; Bennett, J.A.; Mayer, K.; Pituch, K.A.; Simpson, V.; Skibiski, J.; Takagi, E.; Karaaslan, M.M.; Ozluk, B.; et al. Nurses' Resilience in the Face of Coronavirus (COVID-19): An International View. *Nursing & Health Sciences* **2021**, *23*, 646, doi:10.1111/nhs.12863.
14. Klein, W.; Wood, S.; Bartz, J. A Historical Review of Gaslighting: Tracing Changing Conceptualizations Within Psychiatry and Psychology.; OSF, August 23 2023.
15. Stern, D.R. *The Gaslight Effect: How to Spot and Survive the Hidden Manipulation Others Use to Control Your Life*; Harmony: New York, 2018; ISBN 978-0-7679-2446-7.
16. Abramson, K. Turning up the Lights on Gaslighting. *Philosophical Perspectives* **2014**, *28*, 1–30.
17. Darke, L.; Paterson, H.; van Golde, C. Illuminating Gaslighting: A Comprehensive Interdisciplinary Review of Gaslighting Literature. *J Fam Viol* **2025**, doi:10.1007/s10896-025-00805-4.
18. Clark, C.M. Navigating the Challenging Complexities of Gaslighting in Nursing Academe. *Teaching and Learning in Nursing* **2024**, *19*, 113–118, doi:10.1016/j.teln.2023.11.003.
19. Troth, A.C.; Ashkanasy, N.M.; Humphrey, R.H. Supervisory Gaslighting and Its Effects on Employee Affective Commitment. In *Emotions During Times of Disruption*; Emerald Group Publishing, 2023 ISBN 978-1-80382-837-4.

 doi:10.20944/preprints202507.2347.v1




20. Farid, H.; Zhang, Y.; Tian, M.; Lu, S. Unmasking the Interplay between Gaslighting and Job Embeddedness: The Critical Roles of Coworker Support and Work Motivation. *Journal of Management & Organization* **2024**, *30*, 2300–2317, doi:10.1017/jmo.2024.63.
21. El-Sayed, A.A.I.; Alsenany, S.A.; Atta, M.H.R.; Othman, A.A.; Asal, M.G.R. Navigating Toxicity: Investigating the Interplay Between Workplace Gaslighting, Workaholism, and Agility Among Nurses. *Nursing Inquiry* **2025**, *32*, e12697, doi:10.1111/nin.12697.
22. Atta, M.H.R.; Waheed Elzohairy, N.; Abd Elaleem, A.E.D.M.H.; Othman, A.A.; Hamzaa, H.G.; El-Sayed, A.A.I.; Zoromba, M.A. Comprehending the Disruptive Influence of Workplace Gaslighting Behaviours and Mobbing on Nurses' Career Entrenchment: A Multi-Centre Inquiry. *Journal of Advanced Nursing* **2025**, *81*, 1815–1828, doi:10.1111/jan.16368.
23. Moisoglou, I.; Katsiroumpa, A.; Konstantakopoulou, O.; Papathanasiou, I.V.; Katsapi, A.; Prasini, I.; Chatzi, M.; Galanis, P. Workplace Gaslighting Is Associated with Nurses' Job Burnout and Turnover Intention in Greece. *Healthcare* **2025**, *13*, 1574, doi:10.3390/healthcare13131574.
24. Gallup Global Engagement Falls for the Second Time Since 2009 Available online: https://www.gallup.com/workplace/659279/global-engagement-falls-second-time-2009.aspx (accessed on 22 July 2025).
25. Schaufeli, W.B.; Salanova, M.; González-romá, V.; Bakker, A.B. The Measurement of Engagement and Burnout: A Two Sample Confirmatory Factor Analytic Approach. *Journal of Happiness Studies* **2002**, *3*, 71–92, doi:10.1023/A:1015630930326.
26. Tomietto, M.; Paro, E.; Sartori, R.; Maricchio, R.; Clarizia, L.; De Lucia, P.; Pedrinelli, G.; Finos, R.; Group, P.N. Work Engagement and Perceived Work Ability: An Evidence-Based Model to Enhance Nurses' Well-Being. *Journal of Advanced Nursing* **2019**, *75*, 1933–1942, doi:10.1111/jan.13981.
27. Ghazawy, E.R.; Mahfouz, E.M.; Mohammed, E.S.; Refaei, S.A. Nurses' Work Engagement and Its Impact on the Job Outcomes. *International Journal of Healthcare Management* **2021**, *14*, 320–327, doi:10.1080/20479700.2019.1644725.
28. Wei, H.; Horsley, L.; Cao, Y.; Haddad, L.M.; Hall, K.C.; Robinson, R.; Powers, M.; Anderson, D.G. The Associations among Nurse Work Engagement, Job Satisfaction, Quality of Care, and Intent to Leave: A National Survey in the United States. *International Journal of Nursing Sciences* **2023**, *10*, 476–484, doi:10.1016/j.ijnss.2023.09.010.
29. Wee, K.Z.; Lai, A.Y. Work Engagement and Patient Quality of Care: A Meta-Analysis and Systematic Review. *Med Care Res Rev* **2022**, *79*, 345–358, doi:10.1177/10775587211030388.
30. Moisoglou, I.; Katsiroumpa, A.; Katsapi, A.; Konstantakopoulou, O.; Galanis, P. Poor Nurses' Work Environment Increases Quiet Quitting and Reduces Work Engagement: A Cross-Sectional Study in Greece. *Nursing Reports* **2025**, *15*, 19, doi:10.3390/nursrep15010019.
31. Moisoglou, I.; Katsiroumpa, A.; Papathanasiou, I.V.; Konstantakopoulou, O.; Katharaki, M.; Malliarou, M.; Tsaras, K.; Prasini, I.; Rekleiti, M.; Galanis, P. Engaging Leadership Reduces Quiet Quitting and Improves Work Engagement: Evidence from Nurses in Greece. *Nursing Reports* **2025**, *15*, 247, doi:10.3390/nursrep15070247.
32. Cao, X.; Chen, L. Relationships among Social Support, Empathy, Resilience and Work Engagement in Haemodialysis Nurses. *International Nursing Review* **2019**, *66*, 366–373, doi:10.1111/inr.12516.
33. Cabrera-Aguilar, E.; Zevallos-Francia, M.; Morales-García, M.; Ramírez-Coronel, A.A.; Morales-García, S.B.; Sairitupa-Sanchez, L.Z.; Morales-García, W.C. Resilience and Stress as Predictors of Work Engagement: The Mediating Role of Self-Efficacy in Nurses. *Front. Psychiatry* **2023**, *14*, doi:10.3389/fpsyt.2023.1202048.
34. Scheyett, A. Quiet Quitting. *Social Work* **2023**, *68*, 5–7, doi:10.1093/sw/swac051.
35. Harter, J. Is Quiet Quitting Real? Available online: https://www.gallup.com/workplace/398306/quiet-quitting-real.aspx (accessed on 26 November 2024).
36. Hungerford, C.; Jackson, D.; Cleary, M. Quiet Quitting, Resenteeism and Other Forms of Disengagement: What Are the Answers for Nurses? *Journal of Advanced Nursing* **2024**, *n/a*, doi:10.1111/jan.16574.
37. Rinaldi, S.; Pomarolli, E. Quiet Quitting Among Nurses: A Case Study in a Northern Italian Hospital. *Nursing Reports* **2025**, *15*, 239, doi:10.3390/nursrep15070239.

 doi:10.20944/preprints202507.2347.v1




38. Gün, İ.; Çetinkaya Kutun, F.; Söyük, S. Mediating Effect of Turnover Intention on the Relationship Between Job Burnout and Quiet Quitting in Nurses. *Journal of Advanced Nursing n/a*, doi:10.1111/jan.16807.
39. Galanis, P.; Katsiroumpa, A.; Vraka, I.; Siskou, O.; Konstantakopoulou, O.; Katsoulas, T.; Moisoglou, I.; Gallos, P.; Kaitelidou, D. Nurses Quietly Quit Their Job More Often than Other Healthcare Workers: An Alarming Issue for Healthcare Services. *International Nursing Review* **2024**, *71*, 850–859, doi:10.1111/inr.12931.
40. Geng, R.; Geng, X.; Geng, S. Identifying Key Antecedents of Quiet Quitting Among Nurses: A Cross-Profession Meta-Analytic Review. *Journal of Advanced Nursing n/a*, doi:10.1111/jan.16934.
41. Toska, A.; Dimitriadou, I.; Togas, C.; Nikolopoulou, E.; Fradelos, E.C.; Papathanasiou, I.V.; Sarafis, P.; Malliarou, M.; Saridi, M. Quiet Quitting in the Hospital Context: Investigating Conflicts, Organizational Support, and Professional Engagement in Greece. *Nursing Reports* **2025**, *15*, 38, doi:10.3390/nursrep15020038.
42. Galanis, P.; Moisoglou, I.; Katsiroumpa, A.; Malliarou, M.; Vraka, I.; Gallos, P.; Kalogeropoulou, M.; Papathanasiou, I.V. Impact of Workplace Bullying on Quiet Quitting in Nurses: The Mediating Effect of Coping Strategies. *Healthcare* **2024**, *12*, 797, doi:10.3390/healthcare12070797.
43. Galanis, P.; Moisoglou, I.; Katsiroumpa, A.; Gallos, P.; Kalogeropoulou, M.; Meimeti, E.; Vraka, I.; Galanis, P.; Moisoglou, I.; Katsiroumpa, A.; et al. Workload Increases Nurses' Quiet Quitting, Turnover Intention, and Job Burnout: Evidence from Greece. *AIMSPH* **2025**, *12*, 44–55, doi:10.3934/publichealth.2025004.
44. Galanis, P.; Moisoglou, I.; Katsiroumpa, A.; Vraka, I.; Siskou, O.; Konstantakopoulou, O.; Meimeti, E.; Kaitelidou, D. Increased Job Burnout and Reduced Job Satisfaction for Nurses Compared to Other Healthcare Workers after the COVID-19 Pandemic. *Nursing Reports* **2023**, *13*, 1090–1100, doi:10.3390/nursrep13030095.
45. Moisoglou, I.; Katsiroumpa, A.; Prasini, I.; Gallos, P.; Kalogeropoulou, M.; Galanis, P. Innovation Support Reduces Quiet Quitting and Improves Innovative Behavior and Innovation Outputs among Nurses in Greece. *Nursing Reports* **2024**, *14*, 2618–2628, doi:10.3390/nursrep14040193.
46. Galanis, P.; Moisoglou, I.; Malliarou, M.; Papathanasiou, I.V.; Katsiroumpa, A.; Vraka, I.; Siskou, O.; Konstantakopoulou, O.; Kaitelidou, D. Quiet Quitting among Nurses Increases Their Turnover Intention: Evidence from Greece in the Post-COVID-19 Era. *Healthcare* **2024**, *12*, 79, doi:10.3390/healthcare12010079.
47. von Elm, E.; Altman, D.G.; Egger, M.; Pocock, S.J.; Gøtzsche, P.C.; Vandenbroucke, J.P. The Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) Statement: Guidelines for Reporting Observational Studies. *Journal of Clinical Epidemiology* **2008**, *61*, 344–349, doi:10.1016/j.jclinepi.2007.11.008.
48. Smith, B.W.; Dalen, J.; Wiggins, K.; Tooley, E.; Christopher, P.; Bernard, J. The Brief Resilience Scale: Assessing the Ability to Bounce Back. *Int. J. Behav. Med.* **2008**, *15*, 194–200, doi:10.1080/10705500802222972.
49. Kyriazos, T.A.; Stalikas, A.; Prassa, K.; Galanakis, M.; Yotsidi, V.; Lakioti, A. Psychometric Evidence of the Brief Resilience Scale (BRS) and Modeling Distinctiveness of Resilience from Depression and Stress. *Psychology* **2018**, *09*, 1828, doi:10.4236/psych.2018.97107.
50. Katsiroumpa, A.; Moisoglou, I.; Konstantakopoulou, O.; Tsiachri, M.; Kolisiati, A.; Galanis, P. The Gaslighting at Work Scale: Development and Initial Validation. *Journal of Workplace Behavioral Health* **2025**, *In Press*, doi:10.21203/rs.3.rs-5791246/v1.
51. Galanis, P.; Katsiroumpa, A.; Vraka, I.; Siskou, O.; Konstantakopoulou, O.; Moisoglou, I.; Gallos, P.; Kaitelidou, D. The Quiet Quitting Scale: Development and Initial Validation. *AIMS Public Health* **2023**, *10*, 828–848, doi:10.3934/publichealth.2023055.
52. Schaufeli, W.B.; Shimazu, A.; Hakanen, J.; Salanova, M.; De Witte, H. An Ultra-Short Measure for Work Engagement. *European Journal of Psychological Assessment* **2019**, *35*, 577–591, doi:10.1027/1015-5759/a000430.
53. Katsiroumpa, A.; Moisoglou, I.; Kalogeropoulou, M.; Konstantakopoulou, Olympia; Gallos, P.; Tsiachri, Maria; Galanis, Petros Utrecht Work Engagement Scale (3 Items Version): Translation and Validation in Greek. *International Journal of Caring Sciences* **2024**, *17*, 1342–1349.
54. World Medical Association World Medical Association Declaration of Helsinki: Ethical Principles for Medical Research Involving Human Subjects. *JAMA* **2013**, *310*, 2191–2194, doi:10.1001/jama.2013.281053.
55. Labrague, L.J. Abusive Supervision and Its Relationship With Nursing Workforce and Patient Safety Outcomes: A Systematic Review. *Western journal of nursing research* **2024**, *46*, doi:10.1177/01939459231212402.

 doi:10.20944/preprints202507.2347.v1




56. Katsiroumpa, A.; Moisoglou, I.; Konstantakopoulou, O.; Gallos, P.; Rekleiti, M.; Rizos, F.; Galanis, P. Workplace Gaslighting Affects Nurses' Mental Health and Work Life: Evidence from Greece 2025.
57. Rubaca, U.; Munir, M.M. Supervisor Incivility, Emotional Exhaustion and Nurses' Job Neglect: The Moderating Role of Resilience and Professional Calling. *International Journal of Organization Theory & Behavior* **2025**, *28*, 214–233, doi:10.1108/IJOTB-01-2023-0029.
58. Chang, Y.-C.; Huang, S.-T.; Wang, C.-C.; Yang, C.-C. Resilience as a Moderator of the Effects of Types of Workplace Bullying and Job Performance. *BMC Nurs* **2025**, *24*, 254, doi:10.1186/s12912-025-02888-2.
59. Tau, B.; Du, P.E.; Koen, D.; Ellis, S. The Relationship between Resilience and Empowering Leader Behaviour of Nurse Managers in the Mining Healthcare Sector. *Curationis* **2018**, *41*, 1–10, doi:10.4102/curationis.v41i1.1775.
60. Sihvola, S.; Kvist, T.; Nurmeksela, A. Nurse Leaders' Resilience and Their Role in Supporting Nurses' Resilience during the COVID-19 Pandemic: A Scoping Review. *Journal of Nursing Management* **2022**, *30*, 1869–1880, doi:10.1111/jonm.13640.
61. Van Bogaert, P.; van Heusden, D.; Timmermans, O.; Franck, E. Nurse Work Engagement Impacts Job Outcome and Nurse-Assessed Quality of Care: Model Testing with Nurse Practice Environment and Nurse Work Characteristics as Predictors. *Front. Psychol.* **2014**, *5*, doi:10.3389/fpsyg.2014.01261.
62. Lyu, H.; Yao, M.; Zhang, D.; Liu, X. The Relationship Among Organizational Identity, Psychological Resilience and Work Engagement of the First-Line Nurses in the Prevention and Control of COVID-19 Based on Structural Equation Model. *Risk Management and Healthcare Policy* **2020**, *13*, 2379–2386, doi:10.2147/RMHP.S254928.
63. Nantsupawat, A.; Kutney-Lee, A.; Abhicharttibutra, K.; Wichaikhum, O.-A.; Poghosyan, L. Exploring the Relationships between Resilience, Burnout, Work Engagement, and Intention to Leave among Nurses in the Context of the COVID-19 Pandemic: A Cross-Sectional Study. *BMC Nurs* **2024**, *23*, 290, doi:10.1186/s12912-024-01958-1.
64. Hetzel-Riggin, M.D.; Swords, B.A.; Tuang, H.L.; Deck, J.M.; Spurgeon, N.S. Work Engagement and Resiliency Impact the Relationship Between Nursing Stress and Burnout. *Psychol Rep* **2020**, *123*, 1835–1853, doi:10.1177/0033294119876076.
65. Katsiroumpa, A.; Moisoglou, I.; Papathanasiou, I.V.; Malliarou, M.; Sarafis, P.; Gallos, P.; Konstantakopoulou, O.; Rizos, F.; Galanis, P. Resilience and Social Support Protect Nurses from Anxiety and Depressive Symptoms: Evidence from a Cross-Sectional Study in the Post-COVID-19 Era. *Healthcare* **2025**, *13*, 582, doi:10.3390/healthcare13060582.
66. Kester, K.; Wei, H. Building Nurse Resilience. *Nursing Management* **2018**, *49*, 42, doi:10.1097/01.NUMA.0000533768.28005.36.
67. Cusack, L.; Smith, M.; Hegney, D.; Rees, C.S.; Breen, L.J.; Witt, R.R.; Rogers, C.; Williams, A.; Cross, W.; Cheung, K. Exploring Environmental Factors in Nursing Workplaces That Promote Psychological Resilience: Constructing a Unified Theoretical Model. *Front. Psychol.* **2016**, *7*, doi:10.3389/fpsyg.2016.00600.
68. Paine, K.; Prochnow, J.A. Leadership Strategies to Support Resilience. *Nursing Management* **2022**, *53*, 12, doi:10.1097/01.NUMA.0000824024.53750.66.