

Nurses quietly quit their job more often than other healthcare workers: an alarming issue for healthcare services

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Abstract

Background: Quiet-quitting phenomenon is not new but has been frequently discussed during the COVID-19 pandemic. Interestingly, the level of quiet quitting among healthcare workers (HCWs) has not been measured yet.

Objective: To assess the level of quiet quitting among HCWs, and identify possible differences between nurses, physicians, and other HCWs. Moreover, we investigated the impact of socio-demographic variables, job burnout, and job satisfaction on quiet quitting levels.

Methods: We conducted a cross-sectional study with a convenience sample of HCWs during June 2023. HCWs included nurses, physicians, dentists, pharmacists, midwives, psychologists, and physiotherapists that have been working in healthcare services. We measured socio-demographic characteristics of HCWs, job burnout with “Copenhagen Burnout Inventory”, job satisfaction with “Job Satisfaction Survey”, and quiet quitting with “Quiet Quitting” Scale.

Results: Study population included 1760 HCWs with a mean age of 41.1 years. Among our sample, 57.9% were quiet quitters, while 42.1% were non quiet quitters. In particular, 67.4% of nurses were quiet quitters, while prevalence of quiet quitting for physicians and other HCWs were 53.8% and 40.3% respectively ($p < 0.001$). Multivariable linear regression analysis identified that the levels of quiet quitting were higher among nurses than physicians and other HCWs. Moreover, greater job burnout contributed more to quiet quitting, while less satisfaction implied more quiet quitting. Shift HCWs, and those working in private sector experienced higher levels of quiet quitting. Additionally, we found a negative relationship between clinical experience and quiet quitting.

Conclusions: More than half of our HCWs were described as quiet quitters. Levels of quiet quitting were higher among nurses even when controlling for several confounders. Higher levels of job burnout and lower levels of job satisfaction were associated with higher levels of quiet quitting.

Introduction

Quiet quitting refers to the phenomenon where workers limit their work effort to the basic requirements (Zuzelo, 2023). In that case, workers decide not to go above and beyond their bare requirements to achieve a better work-life balance. This phenomenon is not new but has been frequently described during the COVID-19 pandemic after a viral TikTok video in the middle of 2022 (Scheyett, 2022). COVID-19 pandemic influences workers' priorities since many of them chose to hold back from the demands of a demanding job (Zuzelo, 2023).

Quiet-quitting phenomenon seems to follow the “great resignation” trend starting in 2021 (Liu-Lastres et al., 2023). “Great resignation” could be considered as an economic movement where more than 48 million people only in the USA left their jobs in 2021, and more than 50 million people in 2022 (U.S. Bureau of Labor Statistics, 2023a). Nowadays, workers decide not to leave their job due to financial difficulties.

Instead, workers choose quiet quitting over resignation since they prefer to “work to live” and not “live to work” (Zuzelo, 2023). Especially, healthcare workers (HCWs) are reevaluating life balance and priorities after the pandemic due to the increased COVID-19-associated mortality and morbidity among them (World Health Organization, 2021).

COVID-19 pandemic causes among others a significant workload increase for HCWs. Moreover, healthcare systems worldwide have suffered from labor shortages. Thus, HCWs have experienced overwhelming pressures resulting on high turnover rates. For instance, before the pandemic, 3.2% of HCWs reported turnover, compared with 5.6% on the onset of the pandemic and 3.7% in the following year (Frogner & Dill, 2022). Moreover, nursing professional is a significant predictor of turnover intention especially during the pandemic since nurses are more likely to experience turnover intention as compared to other HCWs (Poon et al., 2022). Adverse working conditions and less organizational support and motivation are other significant determinants of turnover intention during the pandemic (Poon et al., 2022). Additionally, several systematic reviews has identified high rates of anxiety, depression, burnout, and post-traumatic stress disorder among HCWs during the pandemic (Galanis et al., 2021; Y. Li et al., 2021).

Moreover, insufficient investment in education of adequate numbers of nurses, aging population, and early retirement have resulted on a chronic worldwide nursing shortage. According to a recent report from the International Council of Nurses, the worldwide shortage of nurses is now a global health emergency (Buchan & Catton, 2023). For instance, turnover intention rates among nurses having risen to 20%, while nurses turnover costs hospitals more than \$9 billion annually (Murthy, 2022). Additionally, according to the U.S. Bureau of Labor Statistics, nursing is considered as one of the top jobs for growth since it is expected to grow by 6% from 2021–2031 (U.S. Bureau of Labor Statistics, 2023b). Literature confirms the high resignation rate in the nursing profession, and high turnover intention rate even among newly graduated nurses (Chen et al., 2021; Z. Li et al., 2020). Thus, a well-supported global nursing workforce is key to improving the sustainability of healthcare systems, and building healthier communities. Especially after the pandemic, healthcare systems should invest in a reliable nursing workforce with educated, well-motivated and supported nurses. In this context, policy makers should give special attention to how to support nurses within organizations (Nowell, 2022). In that way, we expected levels of quiet quitting being low among committed and motivated nurses. These nurses may also feel less burnt out and more satisfied providing high quality of care.

Therefore, increased turnover intention, high prevalence of mental health issues among HCWs, and current HCWs shortage threaten workers life, patients care and productivity. In this context, high prevalence of quiet quitting among HCWs could be another nail in the coffin of healthcare organizations. A great amount of literature has investigated work-related variables among HCWs such as job satisfaction, workplace empowerment, teamwork, work engagement, and job morale (Cicolini et al., 2014; Le et al., 2021; Rowan et al., 2022; Sabitova et al., 2019).

However, until now, the level of quiet quitting among workers including healthcare workers is unknown since there has not been an instrument to measure it. Interestingly there is only one instrument that has been recently developed to measure the quiet-quitting phenomenon among employees in a valid and reliable way (Galanis et al., 2023b). Inevitably, scholars have not yet also investigated the factors that influence quiet quitting. Therefore, the main purpose of our study was to measure the level of quiet quitting among HCWs and identify possible differences between nurses, physicians, and other HCWs. Moreover, we investigated several socio-demographic variables, job burnout, and job satisfaction as potential determinants of quiet quitting.

Methods

Study design

We conducted a cross-sectional study in Greece during June 2023. The inclusion criteria for our study were healthcare workers in healthcare services (e.g. hospitals, health centers, etc.) who have worked at least the last three years in clinical settings. Since we considered that COVID-19 pandemic may have affected quiet quitting we recruited healthcare workers (HCWs) that have been working during the pandemic. HCWs included nurses, physicians, dentists, pharmacists, midwives, psychologists, and physiotherapists.

We approached our sample through several ways, i.e. self-report questionnaire, e-mail campaigns, and social media. In particular, we conducted paper-and-pencil interviews with HCWs that were known to study scholars. Moreover, we asked these HCWs to invite their colleagues to participate in our study. In that case, we employed the snowball method. Then we created an anonymous online version of the study questionnaire using Google forms, and we sent it to our e-mail contacts who are HCWs. Also, we disseminate the questionnaire through social media, i.e. Facebook, Instagram, Viber, and WhatsApp. In that case, we published the questionnaire in groups referring to HCWs. Therefore, we obtained a convenience sample.

Measures

We measured several socio-demographic characteristics of HCWs, i.e. gender (females or males), age (continuous variable), educational level (university degree or MSc/PhD diploma), shift work (no or yes), job sector (private or public), understaffed workplace (no or yes), and years of clinical experience (continuous variable).

We measured HCWs' burnout with the "Copenhagen Burnout Inventory" (CBI) (Kristensen et al., 2005). We used the reliable and valid Greek version of the CBI (Papaefstathiou et al., 2019). The CBI comprises 19 items and three factors, i.e. work-related burnout, personal burnout, and client-related burnout. In our study, Cronbach's alpha for the three factors ranged from 0.812 to 0.878 indicating very good reliability. Scores on factors range from 0 to 100. Higher values are indicative of higher levels of burnout.

We used the “Job Satisfaction Survey” (JSS) to measure HCWs’ satisfaction (Spector, 1985). The JSS includes 36 items with a total score from 36 to 216. Higher scores on JSS indicate higher levels of job satisfaction. JSS has been validated in Greek (Tsounis & Sarafis, 2018). Cronbach’s alpha for the JSS in our study was 0.845.

We used the “Quiet Quitting” Scale (QQS) to measure the phenomenon of “quiet quitting” among our HCWs (Galanis et al., 2023b). The QQS comprises nine items and three factors, i.e. detachment (four items), lack of initiative (three items), and lack of motivation (two items). Each factor and overall QQS take values from 1 to 5 with higher values indicative of higher levels of quiet quitting. A suggested cut-off point of 2.06 for the overall QQS score discriminates quiet quitters from non quiet quitters (Galanis et al., 2023a). The QQS is a new instrument that has been validated in a sample of employees from different jobs. Thus, we performed a validation study to assess the validity and reliability of the QQS in our sample of HCWs.

Validation study

We used the overall sample to perform confirmatory factor analysis (CFA). We conducted CFA to verify the three-factor structure of the QQS. We applied the maximum likelihood estimator since the QQS was normally distributed. We calculated indices of absolute, relative, and parsimonious fit to check the goodness of fit indices in CFA. In particular, we calculated root mean square error of approximation (RMSEA) and goodness of fit index (GFI) as absolute fit indices, normed fit index (NFI) and comparative fit index (CFI) as relative fit indices, and chi-square/degree of freedom (χ^2/df) as a parsimonious fit index. The acceptable value for RMSEA is < 0.10 (Brown, 2015; Hu & Bentler, 1998), for GFI is > 0.90 (Baumgartner & Homburg, 1996), for NFI is > 0.90 (Hu & Bentler, 1998), for CFI is > 0.90 (Hu & Bentler, 1998), and for χ^2/df is < 5 (Yusoff et al., 2021). Additionally, we estimated the standardized regression weights between the nine items and the three factors, and correlation coefficients between the three factors.

Then, we calculated Cronbach’s alpha and McDonald’s Omega for the QQS and the three factors using the overall sample. Cronbach’s alpha and McDonald’s Omega values > 0.70 are acceptable (Bland & Altman, 1997). Moreover, we calculated Cronbach’s alpha by deleting one item from the QQS each time. Further, we estimated corrected item-total correlations with values between 0.15 to 0.75 considered as acceptable (DeVon et al., 2007).

To further assess the reliability of the QQS, we performed a test-retest analysis with 60 HCWs (20 nurses, 20 physicians, and 20 other HCWs). In that case, we calculated Cohen’s kappa for the nine items, two-way mixed intraclass correlation coefficient (absolute agreement) for QQS scores.

Ethical issues

The Ethics Committee of the Faculty of Nursing, National and Kapodistrian University of Athens approved our study protocol (approval number; 451, June 2023). We conducted our study in an anonymous and

voluntary basis. HCWs gave their informed consent before their participation. Moreover, we conducted our study in accordance with the Declaration of Helsinki (World Medical Association, 2001).

Statistical analysis

We use numbers (n) and percentages (%) to present categorical variables. Also, we use mean, standard deviation (SD), minimum value, and maximum value to present continuous variables. We performed the Kolmogorov-Smirnov test to identify the distribution of variables. We found that scores on scales and age followed normal distribution, while years of clinical experience did not follow normal distribution.

We compared socio-demographic characteristics with job status using chi-square test, analysis of variance, and Kruskal-Wallis test. In that case, we used chi-square test to compare two categorical variables, analysis of variance (ANOVA) to compare a continuous variable that followed normal distribution with a categorical variable with ≥ 2 categories, and Kruskal-Wallis test to compare a continuous variable that did not follow normal distribution with a categorical variable with ≥ 2 categories. Moreover, we used ANOVA to compare scores on scales with job status.

We performed linear regression analyses to identify the determinants of quiet quitting. We considered socio-demographic characteristics of HCWs, job burnout, and job satisfaction as independent variables. We found a high correlation between age and years of clinical experience (Spearman's correlation coefficient = 0.905, $p < 0.001$). Thus, we decided to use only years of clinical experience in the regression models to avoid multicollinearity. Similarly, we found high correlations between work-related burnout, personal burnout, and client-related burnout (Pearson's correlation coefficients ranged from 0.845 to 0.919, $p < 0.001$ in all cases). Thus, we included only work-related burnout in the regression analysis to avoid multicollinearity. First, we conducted univariate analysis, and then we constructed a final multivariable model to eliminate confounding. We calculated unadjusted and adjusted coefficients beta, 95% confidence intervals, and p-values. We assessed the independent effect of socio-demographic characteristics, burnout, and satisfaction with adjusted coefficients beta. P-values less than 0.05 were considered as statistically significant. We used the IBM SPSS 21.0 (IBM Corp. Released 2012. IBM SPSS Statistics for Windows, Version 21.0. Armonk, NY: IBM Corp.) for the analysis.

Results

Socio-demographic characteristics

Study population included 1760 HCWs; among them 946 (53.8%) were nurses, 390 (22.2%) were physicians and 424 (24.1%) were other HCWs. Detailed socio-demographic characteristics of HCWs are presented in Table 1. The mean age of our sample was 41.1 years (SD = 9.8), with a range from 23 to 67 years. The majority of HCWs were females 80.2%. A high percentage (60.6%) of our sample possessed a MSc/PhD diploma. More than half of our HCWs (55.5%) were shift-working HCWs. Among our HCWs, 83.3% stated that they have been working in an understaffed workplace. Mean years of experience were 16.3 (SD = 9.3), with a range from 3 to 40 years.

All socio-demographic characteristics yielded significant results ($p < 0.001$ in all cases), demonstrating significant relationships between these characteristics and job status. In particular, percentage of females was higher among nurses, while physicians were older than the other HCWs. Moreover, a significant higher percentage of nurses possessed a MSc/PhD diploma. Physicians worked more often in shift work, and had a full time job in public sector. Nurses and physicians considered their workplace as understaffed more often than the other HCWs. Mean years of clinical experience was higher among nurses.

Validation study

Results from CFA confirmed the three-factor nine-item structure of the QQS (Fig. 1). All goodness-of-fit statistics had acceptable values suggesting that the three-factor nine-item structure of the QQS provided a very good fit to data. In particular, the values for the indices of absolute, relative, and parsimonious fit were the following: $\chi^2/df = 3.838$, RMSEA = 0.040 (90% confidence interval = 0.028 to 0.053), GFI = 0.994, NFI = 0.988, CFI = 0.991. Moreover, we found that the standardized regression weights between the nine items and the three factors ranged from 0.51 to 0.83 ($p < 0.001$ in all cases). Additionally, we found statistically significant correlations between the three factors ($p < 0.001$ in all cases). In particular, correlation between the factors “detachment” and “lack of initiative” was 0.78, between the factors “detachment” and “lack of motivation” was 0.49, and between the factors “lack of initiative” and “lack of motivation” was 0.55.

Cronbach’s alpha and McDonald’s Omega for the QQS and the three factors are shown in **Supplementary Table 1**. Cronbach’s alpha and McDonald’s Omega for the QQS was 0.782 and 0.785 respectively. All Cronbach’s alpha and McDonald’s Omega values were higher than 0.70 indicating acceptable reliability of the QQS. Moreover, all corrected item-total correlations were inside the acceptable level from 0.15 to 0.75, while removal of each single item did not increase Cronbach’s alpha (**Supplementary Table 2**).

Our test-retest analysis confirmed the high reliability of the QQS. In particular, Cohen’s kappa for the nine items ranged from 0.840 to 0.947 ($p < 0.001$ in all cases), (**Supplementary Table 3**). Moreover, intraclass correlation coefficients for the QQS and the three sub-factors ranged from 0.972 to 0.988 ($p < 0.001$ in all cases), (**Supplementary Table 4**).

Study scales

Detailed descriptive statistics for the study scales are shown in Table 2. Mean values of QQS and sub-factors were higher among nurses than physicians and other HCWs ($p < 0.001$ in all cases). In particular, mean value of QQS was 2.36 for nurses, 2.06 for physicians and 2.05 for other HCWs. Lack of motivation (mean = 2.77) was higher than lack of initiative (mean = 2.21) and detachment (mean = 1.94).

According to the proposed cut-off point (2.06) for the QQS, 57.9% ($n = 1019$) of our HCWs were quiet quitters, while 42.1% ($n = 741$) were non quiet quitters. We found that nurses were quiet quitters more often than other HCWs ($p < 0.001$). In particular, 67.4% ($n = 638$) of nurses were quiet quitters, while

prevalence of quiet quitting for physicians and other HCWs were 53.8% (n = 210) and 40.3% (n = 171) respectively.

Nurses were less satisfied from their job, and more burnt out compared to physicians and other HCWs ($p < 0.001$ in all cases). Personal burnout (mean = 61.90) was higher than client-related burnout (mean = 60.51) and work-related burnout (mean = 57.75).

Determinants of quiet quitting

We carried out univariate and multivariable linear regression analyses with scores on the QQS and the sub-factors as the dependent variables. We found that levels of quiet quitting were higher among nurses than physicians and other HCWs in terms of detachment, lack of initiative, and lack of motivation. Moreover, greater job burnout contributed more to quiet quitting, while less satisfaction implied more quiet quitting. Likewise, shift-working HCWs, and those working in private sector experienced higher levels of quiet quitting. Additionally, we found a negative relationship between years of clinical experience and quiet quitting. Also, workers with MSc/PhD diploma showed higher levels of quiet quitting in terms of detachment. The four models were significant ($p < 0.001$ for ANOVA) and explanatory with R^2 ranging from 12.5–35%. Tables 3–6 show the detailed results from univariate and multivariable linear regression analyses.

Discussion

To the best of our knowledge, this is the first study that estimates the level of quiet quitting among workers with a valid and reliable tool, namely the “Quiet Quitting” Scale. In particular, we measured quiet quitting in a sample of HCWs in Greece including nurses, physicians, dentists, pharmacists, midwives, psychologists, and physiotherapists that have been working in healthcare services. Moreover, we examined the role of type of job and other socio-demographic characteristics on quiet quitting. Additionally, we evaluated the impact of job burnout, and job satisfaction on quiet quitting.

Since the QQS is a newly developed instrument, we performed a validation study to examine the validity and the reliability of the instrument in our sample of HCWs. Our CFA confirmed the three-factor nine-item structure of the QQS (Galanis et al., 2023b) since all goodness-of-fit statistics had excellent values. Therefore, the QQS consists of three factors, i.e. detachment (four items), lack of initiative (three items), and lack of motivation (two items). Additionally, Cronbach’s alpha and McDonald’s Omega values, and test-retest analysis confirmed the reliability of the QQS in our study.

The main finding of our study was that the level of quiet quitting was higher among nurses than physicians and other HCWs. In particular, prevalence of quiet quitting was 67.4% for nurses, 53.8% for physicians, and 40.3% for other HCWs. Moreover, this finding remained even after the elimination of confounders with multivariable linear regression analysis. Also, higher levels of quiet quitting among nurses were identified not only by the QQS but also by the three sub-factors of the scale. Although there are no similar studies on this field, literature suggests that nurses experience higher levels of burnout than

other HCWs (Bridgeman et al., 2018). Also, during the COVID-19 pandemic nurses seemed to be at higher risk of experiencing burnout (Gualano et al., 2021). Additionally, the prevalence of burnout, anxiety, stress, depression, and post-traumatic stress within HCWs and especially nurses during the pandemic was high (Saladino et al., 2021; Salari et al., 2020).

Only a recent Gallup survey with a sample of more than 15,000 workers in the USA has estimated by proxy the percentage of quiet quitting among workers (Harter, 2022). In particular, this survey used a 12-items scale to measure employee engagement as the level of employees' involvement and enthusiasm in their work. Gallup's survey found that 34% of employees were engaged, 16% were actively disengaged, and 50% were not engaged. The latter were considered by the investigators as "quiet quitters". The prevalence of quiet quitters within HCWs in our study (57.9%) was similar to Gallup's survey.

We found that the higher the levels of job burnout were the higher the levels of quiet quitting were also. In a similar way, we identified a negative relationship between job satisfaction and quiet quitting. Although there are no studies that investigate the direct relationship between burnout and quiet quitting several systematic reviews confirm that burnout is associated with other work-related variables, such as absenteeism, turnover, and poor communication with supervisors (Gualano et al., 2021; Johnson et al., 2018). Similarly, literature suggests a strong relationship between work dissatisfaction and turnover intention, job strain, work disengagement (van Diepen et al., 2020; Yildiz et al., 2022). Thus, work-related variables such as burnout and satisfaction seem to be predictors of quiet quitting. Since these variables are modifiable we should put mechanisms in place to support HCWs and improve work environment.

According to our results several socio-demographic variables were associated with quiet quitting. In particular, we found a negative relationship between work experience and quiet quitting. In other words, the level of quiet quitting was higher among younger workers since there was a strong correlation between age and work experience within our HCWs. Gallup's survey (Harter, 2022) confirms indirectly this finding since scholars found a significant decline in engagement among employees below age 35. In particular, they found that the percentage of engaged workers less than 35 years old decreased by 4% from 2019 to 2022, while the percentage of actively disengaged increased by 6%. Considering the increasing ratio of young workers in healthcare industry, the large percentage of the healthcare workforce close to retirement (Szabo et al., 2020), and the high percentage of quiet quitters among younger workers, policy makers should critically analyze the distribution of HCWs to avoid an overall shortage of them.

Our study found that shift work had a negative impact on quiet quitting. Several studies confirm the negative effect of shift work on work-related variables, such as job burnout, dissatisfaction, and turnover intention especially among nurses (Blytt et al., 2022; Dall'Ora et al., 2023; Jaradat et al., 2017). Since healthcare industry is an occupational sector where most HCWs work in shifts, we should develop and implement interventions to prevent disturbances from shift work among HCWs.

According to our study, HCWs in private sector experienced higher levels of quiet quitting. Studies showed greater dissatisfaction of job control, higher perceived job insecurity, and higher turnover rate among private sector HCWs than those in the public sector (Liu & Cheng, 2018; Margallo-Lana et al., 2001; Yeh et

al., 2018). Since work conditions in the public sector seem to be better than in the private sector, we should implement policies to support disadvantaged HCWs in the private sector.

Our study had several limitations. First, we used a convenience sample of HCWs that cannot be representative of HCWs in Greece. For example, our sample included mainly females and HCWs with a MSc/PhD diploma. Further studies with bigger and more representative samples can add valuable data. Second, we collected our data through self-reported questionnaires. We used valid and reliable instruments to collect the information, but information bias is still possible since HCWs may compromise their answers. Third, we measured several variables as potential determinants of quiet quitting but many other variables could be also predictors of the outcome, such as work-life balance, work engagement, remote work, etc. Fourth, we used the QQS for first time in a sample of HCWs. Although the QQS was proven to be valid and reliable in our study, future studies could also examine the psychometric properties of the instrument in other populations and cultures. Fifth, we conducted a cross-sectional study and causal relationships between the independent variables and quiet quitting cannot be established. Furthermore, our study was the first attempt to measure quiet quitting among HCWs. Thus, there is a need for further studies on this field. Moreover, longitudinal studies measuring changes of HCWs' responses overtime can add valuable information.

Conclusion

More than half of our HCWs could be described as quiet quitters. Moreover, our multivariable analysis showed that the levels of quiet quitting were higher among nurses than other HCWs. Also, job burnout and satisfaction were significant predictors of quiet quitting. Shift HCWs, those working in private sector, and those with less clinical experience experienced higher levels of quiet quitting.

Quiet quitting seems to be an alarming issue for workforces and especially for healthcare industry where workers have already experienced high levels of burnout, work disengagement, and turnover intention. Therefore, measurement of quiet quitting and identification of risk factors are essential to prevent or reduce quiet quitting levels among HCWs. Our study provides information on this field helping managers and organizations to identify quiet quitters within HCWs.

Our findings showed that particular attention should be paid to nurses since they experienced the higher levels of quiet quitting. The COVID-19 pandemic has proven that healthcare services are not resilient enough. Moreover, after the pandemic nurses have reevaluated work-life balance, while the cost of living has increased. In this context, the likelihood of quiet quitting among nurses has increased. Now, it seems to be that nurses choose quiet quitting over resignation. High levels of quiet quitting within nurses may compromise their professional roles and activities. Since healthcare systems rely on nurses to provide high standard quality of care, it is necessary to have a reliable workforce of nurses to improve resilience of healthcare services and achieve safety and quality.

In this context, policy makers and managers should develop and implement interventions both at an organizational level and at an individual level. Improving work conditions, manager engagement,

workflow management, and the relationship between HCWs and managers is essential to support work engagement, increase productivity, and promote patients' care. Managers know HCWs as individuals and not only as employees. Therefore, managers should learn how to have meaningful conversations with HCWs to help them to reduce quiet quitting. Additionally, mindfulness based interventions and educational interventions can help HCWs to improve their work-life balance and understand how their work contributes to the organization's performance.

Finally, our study is the first that assess quiet quitting within HCWs. Moreover, considering the limitations of our study, our findings should be interpreted with caution. Therefore, further studies should measure quiet quitting within HCWs and identify predictors of this phenomenon.

Declarations

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Tables

Table 1. Socio-demographic characteristics of healthcare workers.

Characteristics	Nurses		Physicians		Other healthcare workers		Total		P-value
	N	%	N	%	N	%	N	%	
Gender									<0.001 ^a
Females	816	86.3	260	66.7	336	79.2	1412	80.2	
Males	130	13.7	130	33.3	88	20.8	348	19.8	
Age ^b	39.5	9.8	45.8	9.3	40.4	8.9	41.1	9.8	<0.001 ^c
Educational level									<0.001 ^a
University degree	310	32.8	200	51.3	184	43.4	694	39.4	
MSc/PhD diploma	636	67.2	190	48.7	240	56.6	1066	60.6	
Shift work									<0.001 ^a
No	368	38.9	10	25.6	316	74.5	784	44.5	
Yes	578	61.1	290	74.4	108	25.5	976	55.5	
Employment in									<0.001 ^a
Private sector	170	18.0	40	10.3	184	43.4	394	22.4	
Public sector	776	82.0	350	89.7	240	56.6	1366	77.6	
Understaffed workplace									<0.001 ^a
No	130	13.7	40	10.3	124	29.2	294	16.7	
Yes	816	86.3	350	89.7	300	70.8	1466	83.3	
Years of clinical experience ^b	15.6	9.7	19.0	7.9	15.4	9.2	16.3	9.3	<0.001 ^d

^a chi-square test

^b mean, standard deviation

^c analysis of variance

^d Kruskal-Wallis test

Table 2. Descriptive statistics for the study scales.

Scales	Nurses		Physicians		Other healthcare workers		Total		P-value ^a
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	
Quiet Quitting Scale	2.36	0.66	2.06	0.65	2.05	0.58	2.22	0.65	<0.001
Detachment	2.07	0.73	1.78	0.75	1.83	0.64	1.94	0.72	<0.001
Lack of initiative	2.35	0.88	2.03	0.75	2.04	0.79	2.21	0.84	<0.001
Lack of motivation	2.96	0.98	2.62	1.08	2.45	0.90	2.77	1.00	<0.001
Job Satisfaction Survey	101.23	30.28	110.62	24.84	121.64	32.46	108.23	30.88	<0.001
Copenhagen Burnout Inventory									
Work-related burnout	62.25	21.74	57.60	23.57	47.84	21.10	57.75	22.77	<0.001
Personal burnout	64.53	19.46	64.10	23.46	54.01	21.68	61.90	21.40	<0.001
Client-related burnout	64.45	20.67	60.52	23.82	51.72	20.61	60.51	22.01	<0.001

^a analysis of variance

SD: standard deviation

Table 3. Linear regression analysis with score on the “Quiet Quitting” Scale as the dependent variable.

Independent variables	Univariate model		Multivariable model	
	Unadjusted coefficient beta (95% CI)	P-value	Adjusted coefficient beta (95% CI)	P-value
Males vs. females	-0.148 (-0.225 to -0.071)	<0.001	0.035 (-0.033 to 0.103)	0.316
Physicians vs. nurses	-0.204 (-0.278 to -0.131)	<0.001	-0.208 (-0.279 to -0.137)	<0.001
Other healthcare workers vs. nurses	-0.222 (-0.293 to -0.151)	<0.001	-0.073 (-0.143 to -0.002)	0.043
MSc/PhD diploma vs. University	0.064 (0.001 to 0.126)	0.046	0.034 (-0.021 to 0.090)	0.225
Shift work	0.302 (0.242 to 0.362)	<0.001	0.108 (0.047 to 0.170)	0.001
Job in public sector	0.017 (-0.057 to 0.090)	0.659	-0.049 (-0.120 to 0.023)	0.180
Understaffed workplace	0.264 (0.183 to 0.346)	<0.001	-0.029 (-0.107 to 0.049)	0.462
Years of clinical experience	-0.010 (-0.013 to -0.006)	<0.001	-0.009 (-0.012 to -0.006)	<0.001
Work-related burnout score	0.013 (0.012 to 0.015)	<0.001	0.010 (0.008 to 0.011)	<0.001
Satisfaction score	-0.008 (-0.009 to -0.007)	<0.001	-0.004 (-0.005 to -0.003)	<0.001

CI: confidence interval

Adjusted R² for the model=27.6%; p-value for ANOVA<0.001

Table 4. Linear regression analysis with score on the factor “detachment” as the dependent variable.

Independent variables	Univariate model		Multivariable model	
	Unadjusted coefficient beta (95% CI)	P-value	Adjusted coefficient beta (95% CI)	P-value
Males vs. females	-0.147 (-0.232 to -0.063)	0.001	0.016 (-0.065 to 0.098)	0.694
Physicians vs. nurses	-0.212 (-0.293 to -0.131)	<0.001	-0.218 (-0.303 to -0.133)	<0.001
Other healthcare workers vs. nurses	-0.150 (-0.229 to -0.072)	<0.001	-0.039 (-0.123 to 0.045)	0.363
MSc/PhD diploma vs. University	0.095 (0.026 to 0.164)	0.007	0.079 (0.013 to 0.146)	0.018
Shift work	0.241 (0.174 to 0.308)	<0.001	0.123 (0.049 to 0.196)	0.001
Job in public sector	0.024 (-0.057 to 0.105)	0.567	0.018 (-0.068 to 0.103)	0.684
Understaffed workplace	0.123 (0.032 to 0.213)	0.008	-0.024 (-0.102 to 0.041)	0.412
Years of clinical experience	-0.008 (-0.012 to -0.004)	<0.001	-0.007 (-0.011 to -0.004)	<0.001
Work-related burnout score	0.011 (0.010 to 0.012)	<0.001	0.010 (0.008 to 0.012)	<0.001
Satisfaction score	-0.005 (-0.006 to -0.004)	<0.001	-0.001 (-0.002 to 0.0002)	0.089

CI: confidence interval

Adjusted R² for the model=15.0%; p-value for ANOVA<0.001

Table 5. Linear regression analysis with score on the factor “lack of initiative” as the dependent variable.

Independent variables	Univariate model		Multivariable model	
	Unadjusted coefficient beta (95% CI)	P-value	Adjusted coefficient beta (95% CI)	P-value
Males vs. females	-0.102 (-0.201 to -0.003)	0.044	0.069 (-0.028 to 0.166)	0.162
Physicians vs. nurses	-0.227 (-0.322 to -0.133)	<0.001	-0.282 (-0.382 to -0.181)	<0.001
Other healthcare workers vs. nurses	-0.218 (-0.310 to -0.126)	<0.001	-0.145 (-0.245 to -0.046)	0.004
MSc/PhD diploma vs. University	-0.014 (-0.095 to 0.067)	0.737	-0.027 (-0.105 to 0.051)	0.499
Shift work	0.308 (0.229 to 0.386)	<0.001	0.160 (0.073 to 0.247)	<0.001
Job in public sector	-0.077 (-0.172 to 0.018)	0.110	-0.119 (-0.220 to -0.018)	0.021
Understaffed workplace	0.250 (0.145 to 0.355)	<0.001	0.050 (-0.060 to 0.161)	0.371
Years of clinical experience	-0.013 (-0.017 to -0.009)	<0.001	-0.010 (-0.015 to -0.006)	<0.001
Work-related burnout score	0.010 (0.009 to 0.012)	<0.001	0.008 (0.005 to 0.010)	<0.001
Satisfaction score	-0.006 (-0.007 to -0.004)	<0.001	-0.002 (-0.003 to -0.0003)	0.017

CI: confidence interval

Adjusted R² for the model=12.5%; p-value for ANOVA<0.001

Table 6. Linear regression analysis with score on the factor “lack of motivation” as the dependent variable.

Independent variables	Univariate model		Multivariable model	
	Unadjusted coefficient beta (95% CI)	P-value	Adjusted coefficient beta (95% CI)	P-value
Males vs. females	-0.190 (-0.309 to -0.072)	0.002	0.050 (-0.050 to 0.149)	0.331
Physicians vs. nurses	-0.182 (-0.295 to -0.069)	0.002	-0.141 (-0.244 to -0.037)	0.008
Other healthcare workers vs. nurses	-0.411 (-0.520 to -0.302)	<0.001	-0.109 (-0.212 to -0.007)	0.037
MSc/PhD diploma vs. University	0.103 (0.006 to 0.199)	0.037	0.011 (-0.070 to 0.091)	0.797
Shift work	0.414 (0.321 to 0.507)	<0.001	0.014 (-0.076 to 0.104)	0.763
Job in public sector	0.117 (0.004 to 0.230)	0.043	-0.126 (-0.231 to -0.022)	0.017
Understaffed workplace	0.536 (0.412 to 0.660)	<0.001	0.015 (-0.099 to 0.129)	0.796
Years of clinical experience	-0.006 (-0.011 to -0.001)	0.022	-0.007 (-0.011 to -0.002)	0.003
Work-related burnout score	0.022 (0.020 to 0.024)	<0.001	0.012 (0.010 to 0.014)	<0.001
Satisfaction score	-0.018 (-0.019 to -0.016)	<0.001	-0.013 (-0.014 to -0.011)	<0.001

CI: confidence interval

Adjusted R² for the model=35.0%; p-value for ANOVA<0.001

Figures

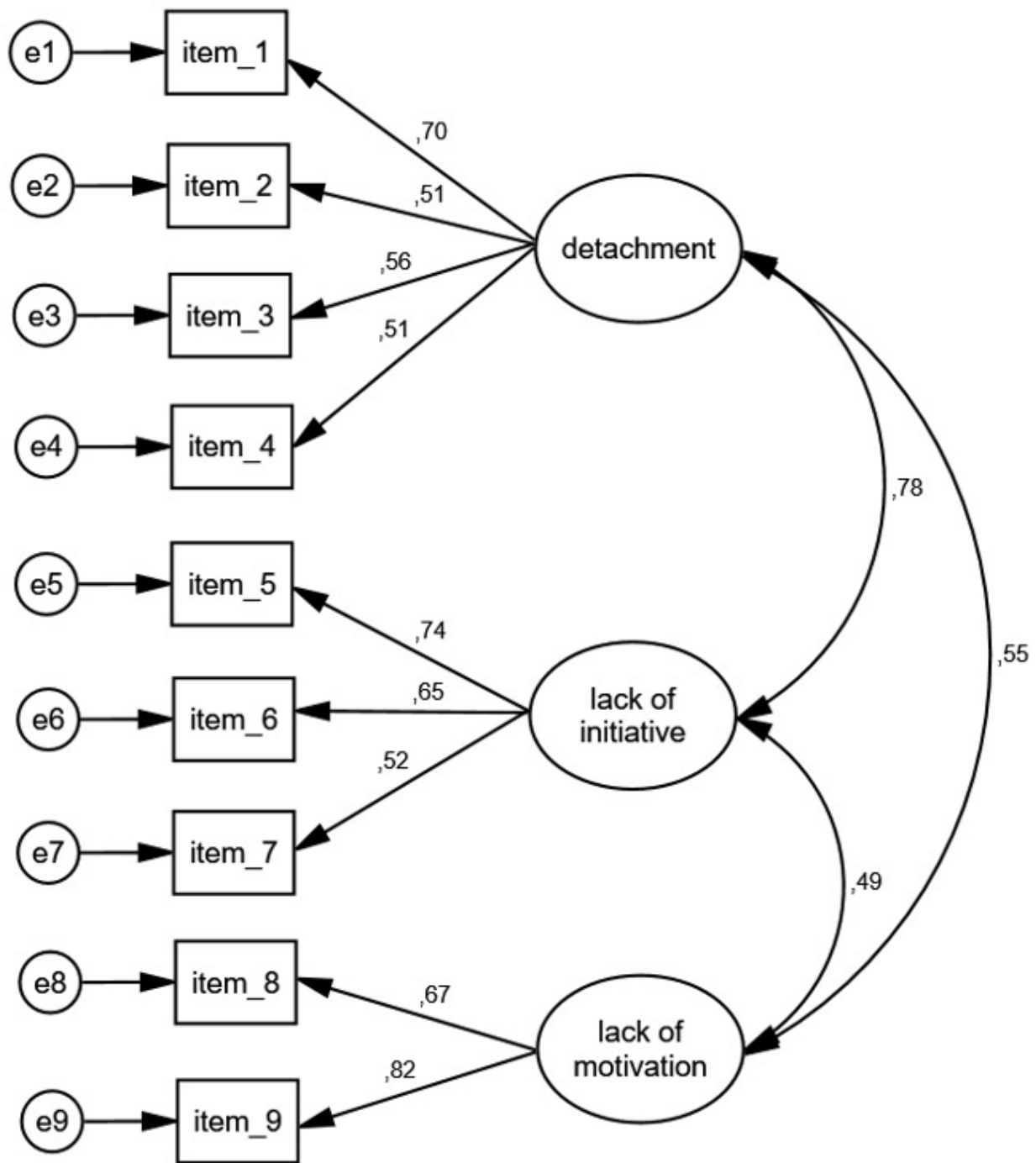


Figure 1

Confirmatory factor analysis of the "Quiet Quitting" Scale and regression/correlation values for the sample of healthcare workers. $\chi^2/df = 3.838$, RMSEA = 0.040 (90% confidence interval = 0.028 to 0.053), GFI = 0.994, NFI = 0.988, CFI = 0.991.

Supplementary Files

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