

Happiness at work and psychological trauma in nurses*

Felicidade no trabalho e trauma psicológico em enfermeiros

How to cite this article:

Feitor SA, Borges EMN. Happiness at work and psychological trauma in nurses. Rev Rene. 2022;23:e71953. DOI: <https://doi.org/10.15253/2175-6783.20222371953>

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*Extracted from the Master's Dissertation "Felicidade no trabalho e eventos potencialmente traumáticos: um estudo com enfermeiros açorianos", Escola Superior de Enfermagem do Porto, 2021.

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Conflict of interest: the authors have declared that there is no conflict of interest.

EDITOR IN CHIEF: Viviane Martins da Silva

ASSOCIATE EDITOR: Renan Alves Silva

ABSTRACT

Objective: to analyze the relationship between happiness levels at work and psychological trauma in nurses and their variation according with sociodemographic/professional variables. **Methods:** cross-sectional study with 113 nurses. The sociodemographic/professional questionnaires applied were the Shorted Happiness at Work Scale and the Impact Event Scale Revised. Pearson's correlation, Students T and Mann-Whitney's tests were used. **Results:** there was a mean score of 4.25 (± 1.05) in the Shorted Happiness at Work Scale and 24.8 (± 13.9) in the Impact Event Scale Revised. The variables sex, dependents, and leisure activities influenced job satisfaction; age, children, leisure activities, professional experience, and work shift influenced psychological trauma. There was a negative weak correlation between job satisfaction and psychological trauma ($r = -0.270$). **Conclusion:** nurses showed moderate levels of happiness at work and low levels of psychological trauma, suggesting that higher levels of happiness may protect them from psychological traumas. **Descriptors:** Nursing; Happiness; Psychological Trauma; Occupational Health.

RESUMO

Objetivo: analisar a relação dos níveis de felicidade no trabalho e trauma psicológico em enfermeiros e sua variação em função de variáveis sociodemográficas/profissionais. **Métodos:** estudo transversal, com uma amostra de 113 enfermeiros. Aplicado questionário sociodemográfico/profissional, *Shorted Happiness at Work Scale* e *Impact Event Scale Revised*. Utilizada correlação de Pearson, teste *t* de Student e de Mann-Whitney. **Resultados:** observou-se pontuação média de 4,25 ($\pm 1,05$) na *Shorted Happiness at Work Scale* e de 24,8 ($\pm 13,9$) na *Impact Event Scale Revised*. As variáveis sexo, pessoas dependentes a cargo e atividades lazer influenciaram a satisfação com o trabalho assim como idade, filhos, atividades lazer, experiência profissional e horário de trabalho influenciaram o trauma psicológico. Identificada uma correlação negativa fraca entre satisfação com o trabalho e trauma psicológico ($r = -0,270$). **Conclusão:** os enfermeiros apresentaram níveis moderados de felicidade no trabalho e baixos de trauma psicológico, sugerindo que maiores níveis de felicidade possam protegê-los de trauma psicológico. **Descritores:** Enfermagem; Felicidade; Trauma Psicológico; Saúde Ocupacional.

Introduction

Considering something so complex as the work dynamics of nursing and the (physically and psychologically) demanding environments where it takes place⁽¹⁻²⁾, it is important to study not only the difficulties of organizations, but also to ascertain what strategies keep the workers motivated and mentally healthy. Therefore, some studies on positive constructs (well-being, happiness) and less positive ones (burnout, psychological trauma) have emerged in nursing literature in recent decades⁽³⁻⁴⁾.

In this regard, the concept of happiness at work involves both the individual and organizational dimensions of work life, going beyond them and permanently focusing on the worker⁽⁵⁾. According with the same authors, happiness at work involves organizational and individual factors that are divided in transitory aspects (emotions and moods) and aspects that remain more stable through time (dispositions and attitudes). It involves the concepts of engagement (affective and cognitive involvement and liking one's work), job satisfaction (judging the characteristics of the work, environment, colleagues, and conditions) and affective organizational behavior (feelings of belonging, emotional bonds, and identification with the values of the organization)⁽⁵⁾.

The happiness levels in nurses are most often evaluated in general, instead of being assessed through the use of instruments specifically designed to measure happiness at work. However, the levels of happiness found were generally moderate⁽⁶⁻⁷⁾. Organizationally speaking, well-defined hierarchies, more autonomous nurses⁽³⁾, and more satisfaction with one's salary and with the medical team⁽⁷⁾ are factors that increase the happiness of nursing professionals. On the other hand, factors such as obstacles in career progression, personal life instability, and little support from the institution⁽⁸⁾ lead to a reduction in the levels of happiness.

The changes in the new world of work, together

with the contributions of a more positive view, such as the study of happiness at work, may have a significant role in the protection against potential work risks. One of the risks found in literature is psychological trauma, which implies in a feeling of powerlessness when confronted with a real or subjective threat to one's life or to the life of loved ones, causing the person to enter in a state of extreme confusion and insecurity⁽⁹⁾. The factors that will determine the development of trauma/Post-Traumatic Stress Disorder are related to resilience, coping mechanisms, personal history, and the social support available⁽¹⁰⁾. This disturbance is characterized by four groups of signs and symptoms, which are: intrusive thoughts, avoidance, hyperarousal, and negative changes in cognition and mood⁽⁹⁾.

Nurses, in their professional lives, tend to be exposed more often to events that may be traumatic than the general population. Some situations they witness are unexpected and uncontrollable, such as death, the suffering of patients, technical mistakes, acute complications⁽¹¹⁾, and cardiopulmonary arrest⁽¹²⁾. More years of professional experience⁽¹³⁾, higher workloads, work pressure, low job satisfaction⁽¹⁴⁾, and the attribution of personal significance to traumatic events at work⁽¹⁵⁾ are risk factors for the development of psychological trauma in nurses. Nonetheless, the levels of psychological trauma reported in nursing workers are low^(4,13,16).

Considering the above, strengthening the promotion of healthy work environments in nursing is paramount⁽¹⁾. Nurse managers must evaluate the work place and its risks and opportunities regularly, so efficient measures can be taken⁽⁶⁾.

According with the situation outlined, and considering the fact that, in the context of Portugal, there have been no public studies analyzing happiness at work and its relation with psychological trauma in nurses, we decided to carry out this study, and the following research question was determined: What is the relation between happiness at work and psychological trauma in nurses from one of the islands of the

Autonomous Region of the Azores? As a result, this study aimed to analyze the relationship between happiness levels at work and psychological trauma in nurses and their variation according with sociodemographic/professional variables.

Methods

A descriptive, correlational, and cross-sectional study was developed including Portuguese nurses from an island in the Azores archipelago who had worked in a specialty hospital and in a primary health care unit for at least six months. The convenience sample was formed by all who accepted participating, which corresponds to 67.7% of eligible participants (n=113 nurses, 90 of whom worked in a specialized hospital, while 23 did so in a primary health care unit).

Data collection took place in September 2020, through the application of three instruments: a questionnaire for sociodemographic/professional characterization (including sex, age, marital status, children, dependents, leisure activities, academic degrees, time of professional experience, professional category, work shift, and professional bond with the institution); the Shorted Happiness at Work Scale (SHAW)⁽⁵⁾ and the Impact Event Scale Revised (IES-R)⁽¹⁷⁾, preceded by two questions, which invited participants to succinctly describe the critical incident that marked them the most in their professional lives and how long ago it happened. After contact was established with the nurse directors, the content and objective of the study were presented to them. Then, the data collection instrument, questionnaires, informed consent forms, and envelopes were provided by the researcher for each head nurse in each service. After 15 days, the researcher got back the questionnaires, which were in a closed envelope, with the head nurses.

The SHAW includes nine items, evaluated in a 7-point Likert scale (which varied from 1 - entirely disagree to 7 - entirely agree), organized in three dimensions: engagement, job satisfaction, and affective

organizational commitment. The higher the score, the happier the individual is at work⁽⁵⁾. In the absence of reference values for the interpretation of mean values in the SHAW scale, our interpretation considered values from 1 to 2 as indicating low happiness at work, 3-5 as moderate, and 6-7 as high. In the study with the original version, Cronbach's alpha values varied from 0.89 to 0.96. In this study, coefficients from 0.631 and 0.867 were found, indicating adequate internal consistency⁽¹⁸⁾, which also corroborates the studies developed with professionals from the fields of health, education, and bankers⁽⁵⁾.

The IES-R has 22 items, distributed in three subscales (intrusive thought, avoidance, and hyperarousal), evaluated using a 5-point Likert scale (varying from 0 - nothing, to 4 - very much). The results of the scale vary from 0 to 88, with scores above 33 indicating a higher likelihood of post-traumatic stress disorder⁽¹⁷⁾. The result of the reliability analysis carried out using Cronbach's alpha in the original version was of 0.96 for the total scale and its dimensions. In this study, these values varied from 0.798 to 0.928, showing the adequate internal consistency in the scale⁽¹⁸⁾ and agreeing with studies developed with pediatric nurses⁽⁴⁾ and pre-hospital emergency professionals^(13,16).

The data were treated and analyzed using the IBM® SPSS software, version 25.0 for Windows. Absolute and relative frequencies, means and standard deviations (SD) were calculated for an exploratory analysis. Regarding inferential statistics, Pearson's correlation, Student's T (for independent samples) and Mann-Whitney's U were used, whenever adequate. The level of statistical significance considered was 5% ($\alpha=0.05$). The variables age and time of professional experience were classified considering their median value.

This study was approved by the Administrative Council and Research Ethics Committee from both institutions (Distribution Report No. 1018 and 1891). All participants provided informed consent.

Results

Regarding the sociodemographic characterization of the sample, most were women (89.4%), 41 years old or older (46.9%), who had a partner (75.2%), children (68.1%), did leisure activities (56.6%) and had no dependents (52.2%). Regarding their professional profile, most were graduated (73.5%), with 16 or more years professional experience (56.6%), were general nurses (782.6%), working in regular shifts (63.7%), in a permanent work relation with the institution (97.3%).

Below, as we present the results, only variables with statistical significance are mentioned. According with the data collected about happiness at work, the nurses had a mean score of 4.25 (\pm SD=1.05) in the total SHAW scale. The dimension with the highest score was engagement, while the lowest score was for job satisfaction (Table 1). Pearson's correlation showed statistically significant relations between the job satisfaction dimension of the SHAW and all subscales of

IES-R; this dimension had the same relation with the total IES-R score. These correlations were negative and weak. The hyperarousal subscale had the highest value.

Regarding psychological traumas, 100% of the nurses have experienced some potentially traumatizing event in their careers. Deaths are the most frequent (45.1%), followed by situations of professional impotence (29.2%), aggression (8.8%), contact with accident victims (5.3%), contact with aggression victims (1.8%), and others (9.7%), such as bullying, death of children, transmitting bad news, and conflicts between peers and relatives. Most of these incidents took place more than 12 months ago (76.1%).

The levels of psychological trauma were low, with a mean of 24.8 (\pm 13.9) for the total IES-R scale. The subscale with the highest score was that of intrusive thoughts, while hyperarousal had the lowest one (Table 1). The prevalence of psychological trauma in the nurses was 23.9%.

Table 1 – Descriptive analysis and Pearson's correlation between the Shorted Happiness at Work Scale and the Impact Event Scale Revised. Azores, Portugal, 2020

| Scale | Mean | Standard deviation | Cronbach's Alpha | Engagement | Job satisfaction | Affective organizational commitment | Total SHAW |
|-------------------------------------|------|--------------------|------------------|------------|---------------------|-------------------------------------|------------|
| Shorted Happiness at Work Scale | | | | | | | |
| Engagement | 4.77 | 1.30 | 0.866 | --- | --- | --- | --- |
| Job satisfaction | 3.27 | 1.10 | 0.631 | --- | --- | --- | --- |
| Affective organizational commitment | 4.69 | 1.40 | 0.851 | --- | --- | --- | --- |
| Total | 4.25 | 1.05 | 0.867 | --- | --- | --- | --- |
| Impact Event Scale Revised | | | | | | | |
| Intrusion | 1.28 | 0.72 | 0.874 | -0.086 | -0.263 [†] | 0.045 | -0.108 |
| Avoidance | 1.19 | 0.68 | 0.798 | -0.005 | -0.200* | 0.039 | -0.055 |
| Hyperarousal | 0.84 | 0.71 | 0.834 | -0.158 | -0.272 [†] | 0.075 | -0.127 |
| Total (0 - 88) | 2.76 | 13.91 | 0.928 | -0.086 | -0.270 [†] | 0.057 | -0.105 |

*p<0.05; [†]p<0.01; SHAW: Shorted Happiness at Work Scale

Regarding the statistically significant results related to happiness at work, it was found that male nurses, with no dependents, who carried out leisure activities, had higher job satisfaction (Table 2).

Table 2 – Comparison between the Shorted Happiness at Work Scale and sociodemographic variables. Azores, Portugal, 2020

| Variables | Shorted Happiness at Work Scale | | | |
|--------------------|---------------------------------|------------------|-------------------------------------|-------------|
| | Engagement | Job satisfaction | Affective organizational commitment | Total |
| Sex | | | | |
| Female | 55.22 | 54.27 | 55.17 | 54.57 |
| Male | 68.27 | 76.95 | 68.73 | 74.23 |
| p [†] | 0.203 | 0.027 | 0.186 | 0.056 |
| Dependents | | | | |
| Yes | 4.61 (1.35) | 2.98 (1.13) | 4.58 (1.36) | 4.05 (1.07) |
| No | 4.89 (1.26) | 3.54 (1.03) | 4.77 (1.45) | 4.40 (1.02) |
| p [†] | 0.259 | 0.008 | 0.464 | 0.085 |
| Leisure activities | | | | |
| Yes | 4.91 (1.33) | 3.50 (1.15) | 4.63 (1.51) | 4.34 (1.12) |
| No | 4.52 (1.20) | 2.95 (0.96) | 4.72 (1.23) | 4.06 (0.91) |
| p [†] | 0.114 | 0.009 | 0.734 | 0.156 |

*Values from Mann-Whitney’s test; †Student’s T test

Observing statistically significant relations between psychological trauma and sociodemographic and professional variables, we found that 41-year-old or older nurses had higher means in the subscales intrusive thoughts and avoidance in the total IES-R. Nurses with children had a higher mean in the subscale intrusive thought and in the total IES-R, while nurses who did not carry out any leisure activities had higher means in the subscale hyperarousal and in the total IES-R (Table 3).

Nurses with 16 or more years of professional experience had higher means in the subscale avoidance and in the total IES-R. Nurses with regular shifts had higher means in the three subscales and in the total IES-R. Finally, specialist/manager nurses had higher means in the hyperarousal subscale (Table 3).

Table 3 – Comparison between the Impact Event Scale Revised and sociodemographic and professional variables. Azores, Portugal, 2020

| Variables | Impact Event Scale Revised | | | |
|---------------------------------|----------------------------|-------------|--------------|---------------|
| | Intrusion | Avoidance | Hyperarousal | Total |
| Age (years) | | | | |
| ≤40 | 1.14 (0.68) | 1.04 (0.65) | 0.74 (0.57) | 22.01 (12.61) |
| ≥41 | 1.42 (0.76) | 1.32 (0.67) | 0.93 (0.84) | 27.59 (14.98) |
| p* | 0.049 | 0.031 | 0.184 | 0.039 |
| Children | | | | |
| Yes | 1.38 (0.69) | 1.26 (0.65) | 0.90 (0.73) | 26.52 (13.59) |
| No | 1.05 (0.74) | 1.05 (0.72) | 0.70 (0.64) | 20.99 (14.03) |
| p* | 0.020 | 0.132 | 0.164 | 0.048 |
| Leisure activities | | | | |
| Yes | 1.15 (0.58) | 1.08 (0.67) | 0.71 (0.53) | 22.11 (11.61) |
| No | 1.43 (0.84) | 1.31 (0.63) | 1.01 (0.85) | 28.01 (15.29) |
| p [†] | 0.051 | 0.069 | 0.036 | 0.023 |
| Professional experience (years) | | | | |
| <16 | 1.13 (0.70) | 1.04 (0.68) | 0.72 (0.60) | 21.69 (13.17) |
| ≥16 | 1.39 (0.73) | 1.30 (0.65) | 0.93(0.77) | 27.11 (14.11) |
| p [†] | 0.065 | 0.042 | 0.107 | 0.040 |
| Work shift | | | | |
| Fixed | 1.44 (0.71) | 1.34 (0.61) | 0.99 (0.77) | 28.19 (13.52) |
| Changing | 0.99 (0.66) | 0.94 (0.71) | 0.59 (0.49) | 19.03 (12.64) |
| p [†] | 0.001 | 0.002 | 0.004 | 0.001 |
| Professional category | | | | |
| General nurse | 1.21 (0.69) | 1.16 (0.64) | 0.75 (0.60) | 23.52 (12.88) |
| Specialist/manager nurse | 1.47 (0.78) | 1.29 (0.74) | 1.11 (0.89) | 28.73 (15.90) |
| p [†] | 0.098 | 0.402 | 0.014 | 0.078 |

*Values found using Student’s T test

Discussion

The limitations of this study were related with the following factors: this is a cross-sectional study with a convenience sample, which, thus, does not allow the data found to be extrapolated. The concept of happiness at work is relatively seldom analyzed in nurses, not to mention that the SHAW is a very recent tool; also, the research was carried out during the coronavirus disease (COVID-19) pandemic.

Regarding the profession of nursing, the contri-

butions of this study include the promotion and shared reflections about experiences related with potentially traumatic experiences in the workplace. This is done, for example, through clinical supervision, which allows the nurse to critique their practices in a positive way, promoting opportunities to grow and increasing happiness at work. Thus, nurses will get to know their weaknesses and limitations better, reformulating their posture as health workers and improving the interactions between nurse, patient, and family.

Considering the current setting of the COVID-19 pandemic, managers will also have to prepare for potential situations involving post-traumatic stress disorder, depression, and burnout, giving support to nurses and preparing a formal response to be used when necessary, thus promoting, above all, the wellbeing of all.

Despite the limitations of this study in regard to the evaluation of happiness at work, another group of workers, that included nurses among other professional categories (n=234) was evaluated, and also found moderate levels of happiness at work⁽⁵⁾. Some authors found moderate levels of happiness in nurses using other scales, targeted at general happiness⁽⁶⁻⁷⁾.

Physically and psychologically demanding workplaces, work overload, and the lack of resources often prevent nurses from providing care as they would like to⁽¹⁾, which may lead to reduced job satisfaction. On the other hand, if we analyze the meaning of happiness for the nurses, we notice that it is connected to actions that are significant for others, feelings of professional accomplishment and pride, positive results of their work, and reaching personal and organizational productivity goals⁽⁸⁾. These factors are related to the levels of engagement and affective organizational commitment of the worker.

Therefore, low job satisfaction levels and moderate-to-high engagement and affective organizational commitment levels found in this study may lead to a balance between good and not-so-good nursing practice, explaining the moderate levels of happiness at work. Other authors corroborate this reflection, stating that moderate happiness at work in nurses is

a fruit of several negative experiences they go through in their workplace, due to lack of resources, poor work conditions, lack of organizational support, excessive work load, and other factors⁽⁷⁾.

Regarding the relation between the variables sex and job satisfaction, in many cultures women still have more responsibilities in the family, in addition to their work⁽⁶⁾. Furthermore, European women are much more involved in informal care than men⁽¹⁹⁾. This accumulation of functions may lead to higher individual loads, which may lead to lower job satisfaction levels.

Regarding their dependents, during a large period of their lives, professionals have to care for children and or elders from their families. To care for someone after a workday means to combine difficult shifts, with little time to leisure, and redefining routines⁽¹⁹⁾, which could lead to lower levels of job satisfaction.

Leisure activities, such as the practice of exercise, mean adopting self-care behavior, promoting individual wellbeing and mental health, all of which have been proven to increase happiness in nurses^(3,7), thus reiterating the higher levels of job satisfaction found.

Regarding psychological trauma, the percentage of nurses who mentioned at least one critical incident in their professional lives in the last year is in accordance with another study about Portuguese health workers, and is especially related to being in situations involving death⁽¹³⁾.

The low psychological trauma levels found are also in accordance with other studies^(4,16). Although these levels are low, one must not forget their potential influence over healthy workers. That is, nurses who, at the time of data collection, experienced some type of psychological suffering, may have chosen not to participate or may have even left the profession, leaving only "healthy workers" as potential participants⁽¹³⁾.

A Portuguese study with health workers, including nurses, also found this relation between psychological trauma and professional experience⁽¹³⁾. Having worked longer in the field leads, over time, to a cumu-

lative exposure to critical incidents at work. It is also a risk factor for the development of psychological trauma in nurses⁽¹⁴⁾.

The presence of children may also become a risk factor for the development of psychological trauma⁽¹³⁾ — especially in the presence of small children, due to the potential comparison/attribution of the hospitalization of a child and the situation of one's own child, which may lead to great psychological suffering^(4,15).

The lack of leisure activities also had a negative influence on the psychological trauma, which is corroborated, for instance, by the practice of exercise⁽¹⁴⁾. Nurses who do not adopt self-care behavior focus their entire energy on work, and when work is below expectations, this may lead to great stress and psychological suffering.

Two factors found in literature that increase psychological trauma in nurses were the establishment of strong affective relations with users and the continuity of care to the same users for long periods of time⁽¹⁵⁾. Therefore, the negative influence of the regular work shift in the psychological trauma may be related with both factors, since these nurses will develop stronger relations with the users due to the fact that there is less user turnover.

Regarding professional category, being a specialist/manager nurse normally leads to more responsibility and, consequently, to higher levels of stress and pressure at work. Also, these factors have the potential of causing psychological trauma in nurses⁽¹⁴⁾, a finding similar to that of the present study.

Nurses with higher levels of job satisfaction will have lower levels of psychological trauma, which is in accordance with another research, which found that low levels of job satisfaction were a risk factor for the development of psychological trauma in nurses⁽¹⁴⁾.

Planning and executing strategies focusing on the mental health of nurses, the promotion of their happiness at work, and the minimization of potentially traumatizing events and their consequences, in the bosom of a multidisciplinary team of occupational health, would result in the ideal setting to deal with

this issue. Health education sessions about health lifestyles/time management, progressive muscle relaxation, mindfulness, training to cope with traumatic situations in the workplace and communicative competences, encouraging exercise and creating sharing groups are some simple interventions that could be put in practice, increasing the wellbeing of nurses⁽²⁰⁾.

Conclusion

There was a negative weak correlation between the dimension of job satisfaction of the Shorted Happiness at Work Scale and the Impact Event Scale Revised and its subscales. Portuguese nurses presented moderate levels of happiness at work and low levels of psychological trauma. 100% of them have experienced some potentially traumatizing event during their professional lives. The results were statistically significant between the job satisfaction dimension of the Shorted Happiness at Work Scale and sociodemographic variables (sex, age, dependents, and leisure activities). They were also significant between the Impact Event Scale Revised and its subscales and the socio-demographic (age, children, and leisure activities) and professional (work experience, work shift, and professional category) variables.

Authors' Contribution

Concept and project, analysis and data interpretation, article writing, relevant critical review of the intellectual content and final approval of the version to be published: Feitor SA, Borges EMN.

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