Anxiety, depression, and work engagement in Primary Health Care nursing professionals*

Ansiedade, depressão e work engagement em profissionais de enfermagem da Atenção Primária à Saúde

ABSTRACT

Objective: to analyze the levels of anxiety, depression, and work engagement among nursing professionals in Primary Health Care. Methods: cross-sectional, descriptive, and correlational study with nursing professionals from Family Health Units. We used: the Beck Anxiety Inventory; the Beck Depression Inventory; and the Utrecht Work Engagement Scale. Results: we observed moderate anxiety among nurses and mild anxiety among nursing assistants/technicians; and mild depression among nurses and nursing assistants/technicians. Anxiety and depression were positively and moderately correlated (r:0.562; p=0.000). The professionals presented elevated levels of work engagement. Conclusion: important levels of anxiety and depression were evidenced among professionals, indicating progress to levels that compromise health and quality of life. Despite the compromised mental health, the professionals showed willingness to work and an important resilience capacity.

Descriptors: Anxiety; Depression; Work Engagement; Nurse Practitioners; Primary Health Care.

RESUMO

Objetivo: analisar os níveis de ansiedade, depressão e work engagement em profissionais de enfermagem da Atenção Primária à Saúde. Métodos: estudo transversal, descritivo e correlacional com profissionais de enfermagem das Unidades de Saúde da Família. Utilizaram-se: o Inventário de Ansiedade de Beck; o Inventário de Depressão de Beck; e a Utrecht Work Engagement Scale. Resultados: observaram-se destaques para ansiedade moderada entre enfermeiros e ansiedade leve para auxiliares/técnicos de enfermagem; e para depressão leve entre enfermeiros e auxiliares/técnicos de enfermagem. Ansiedade e depressão se correlacionaram positiva e moderadamente (r:0.562; p=0.000). Os profissionais apresentaram níveis altos de work engagement. Conclusão: evidenciaram-se níveis importantes de ansiedade e depressão presentes entre profissionais com indicação de avanço para níveis que comprometem a saúde e a qualidade de vida. Apesar do comprometimento na saúde mental, os profissionais se mostram dispostos para o trabalho e com importante capacidade de resiliência.

Descritores: Ansiedade; Depressão; Engajamento no Trabalho; Profissionais de Enfermagem; Atenção Primária à Saúde.


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Introduction

Primary Health Care is considered the main gateway to the Health Care Network of the Brazilian Unified Health System and has the Family Health Strategy as its care model, responsible for conducting preventive and health promotion actions in defined territories with enrolled populations\(^1\).

Despite all the advances achieved with the expansion of the Family Health Strategy in Brazil, there are still many challenges linked to health policies and related to working conditions and environments, which favor the attrition of professionals working in Primary Health Care teams\(^2\).

The psychological stress inherent to working in the Family Health Strategy requires great emotional balance from nursing professionals and often leads to the emergence of chronic conditions that can evolve into occupational stress, increasing the risk of developing anxiety, which leads to a state of demotivation and increases the probability of Burnout Syndrome manifestation\(^3\).

According to the literature, there are numerous work-related factors that contribute to the emergence of anxiety disorders in nurses of the Family Health Strategy, such as overload of activities, lack of professionals in the teams making them incomplete, bureaucratic barriers that hinder work performance and impaired interpersonal relationships. In this context, by elucidating the difficulties arising from the work process, it is possible to evidence the origin of the manifestation of anxiety among these professionals and understand some problems that develop later, such as professional dissatisfaction, absenteeism, unproductivity, work accidents and other occupational diseases\(^4\).

There is evidence that an important number of health professionals present relevant levels of anxiety and depression. A study with nurses who manage Primary Health Care services reveals that the occurrence of these disorders can be attributed to the fatigue of professionals who suffer from poor management and high demand for work, besides disorder in the distribution of tasks and scarcity of investments in resources of physical, material, and human structure\(^4\).

However, it is observed that in certain cases, regardless of the level of demand of work activities, some professionals do not present signs of exhaustion and weariness, but of pleasure and satisfaction with the performance of their work, even in the face of great demands. These professionals present elevated levels of work engagement, a positive motivational factor and frequent satisfaction with work, considered a preventive resource for Burnout, since it tends to promote greater motivation, commitment, and engagement of professionals for the development of their work\(^4\-5\).

Work engagement is an extremely important mechanism that can be disseminated by promoting changes in the work environment, where the professional will develop his or her work with greater effectiveness, enthusiasm, and commitment. This construct encompasses three dimensions: Dedication, which corresponds to the level of involvement and enthusiasm of the worker with the work activity; Absorption, which consists of the level of concentration of the worker, in a pleasurable way; and Vigor, which comprises the level of energy and mental resilience of the worker\(^4\-5\).

In this context, it becomes relevant for public management to identify the levels of work engagement, anxiety, and depression of professionals in Primary Health Care teams, since this information is useful for planning actions to promote the mental health of these workers, besides allowing the reorganization of work processes, which can positively impact the health and productivity of professionals, improving the quality of services offered to the population.

Thus, the objective of this study was to analyze the levels of anxiety, depression, and work engagement among nursing professionals in Primary Health Care.
Methods

A cross-sectional, descriptive, correlational study conducted in 2020 with nursing professionals from Family Health Units in a large city in the interior of the state of São Paulo, Brazil.

The study municipality is in the Northwest region of the state of São Paulo, 452 km from the capital. With an estimated population of 438,354 inhabitants, the municipality is a reference in health care for the 101 municipalities of the Regional Health Division XV, considered the largest in the state of São Paulo. At the time of the study, the municipality was organizationally divided into five Health Districts and had 15 Family Health Units, in which 30 teams worked, responsible for covering 24% of the municipality’s population.

All nursing professionals from 15 Family Health Units in the city were included in the study, totaling 66 professionals, 28 nurses and 38 nursing assistants/technicians. The professionals who were away from work at the time of data collection (vacation, sick leave, and parental leave) were excluded from the study.

Four self-administered instruments were used: a general questionnaire prepared by the researchers, containing sociodemographic and professional variables; the Beck Anxiety Scale or Beck Anxiety Inventory (BAI)(6); the Beck Depression Scale or Beck Depression Inventory (BDI-II)(7); and the Brazilian version of the Utrecht Work Engagement Scale (UWES)(8).

The BAI has 21 questions that assess the intensity of anxiety symptoms. It has high internal consistency (Cronbach’s alpha = 0.92) and test-retest reliability, with an application interval between measures of one week, r (81) = 0.75. Responses to questions are expressed in four levels (no, slightly, moderately, and severely)(6).

The BDI-II consists of 21 questions with items related to depressive symptoms to assess the intensity of depression. The scale showed validity and reliability in the measurement of depressive symptoms in the Brazilian population, besides acceptable internal consistency (α=0.93), concurrent validity and predictive capacity of severity(7).

The UWES has 17 self-assessment items that evaluate the dimensions of work engagement (Dedication, Absorption, Vigor and Overall score). The calculation of the scores was performed by the arithmetic mean of the professionals’ answers to the questions that make up each dimension, ranging from zero to six(8).

The application of the instruments was scheduled with the nurses of the health units and conducted during the team meeting. After the researchers explained the objectives of the study, the workers signed the Free and Informed Consent Form, and then the questionnaires were delivered to the professionals, who answered them and deposited them in a brown envelope without identification to preserve their identity.

The data obtained were stored in a Microsoft Excel® spreadsheet and analyzed using the Statistical Package for Social Sciences, version 23.0. The sociodemographic and professional variables were used to characterize the study population. Following the recommendations of the instruments, a psychologist performed the calculation of anxiety and depression levels, categorizing them into absence of anxiety or depression, mild anxiety or depression, moderate anxiety or depression, and severe anxiety or depression(3).

The analysis of anxiety and depression levels was performed based on sociodemographic variables, using the Chi-square test, and considering a significance level of 5% (p≤0.05). Then, the correlation between anxiety and depression was verified using Pearson’s correlation coefficient with a significance level of 1% (p≤0.01).

The calculations of the scores of the dimensions of work engagement were performed according to the statistical model proposed in the UWES Preliminary Manual(9), presenting mean, standard deviation and 95% confidence interval (CI) for each dimension of the scale. To compare the means among the dimen-
sions, the t-test was used, adopting a significance level of 5% (p≤0.05).

Subsequently, we interpreted the values obtained as recommended for decoding in the UWES Preliminary Manual, as follows: 0 to 0.99 = Very low; 1 to 1.99 = Low; 2 to 3.99 = Medium; 4 to 4.99 = High; 5 to 6 = Very high (9). The preliminary analysis evidenced that the Utrecht Work Engagement Scale data obtained in this study presented reliability with Cronbach’s alpha of 0.984. Then, we proceeded to the correlation analysis between anxiety, depression, and the dimensions of the UWES (Dedication, Absorption, Vigor, and Overall score), using Pearson’s correlation coefficient and significance levels of 5% (p≤0.05) or 1% (p≤0.01), as appropriate. The correlation between variables was considered weak for r values up to 0.30, moderate for values between 0.40 and 0.60, and strong for values greater than 0.70.

The study followed all institutional and/or national research committee ethical precepts. The project was approved by the Research Ethics Committee of the Faculdade de Medicina de São José do Rio Preto, under Protocol Certificate of Ethical Appraisal Submission: 59604116.0.0000.5415 and Opinion No. 1,776,737/2016.

**Results**

Sixty-six professionals participated in the study, 28 (42.4%) nurses and 38 (57.6%) nursing assistants/technicians. Regarding gender, 55 (83.3%) were female; 42 (63.6%) had higher education; 34 (51.5%) were married and 29 (43.9%) were single. Age ranged from 24 to 67 years, with a mean of 36.8 years [95% CI: 34.2 to 39.4 years] and predominance of professionals between 21 and 35 years (54.5%); 41 (62.1%) professionals had family income of two to five minimum wages (R$1,874.00 to R$4,685.00); 25 (37.9%) professionals said they had a chronic disease; 41 (62.1%) did not practice physical activity and 49 (74.2%) were satisfied with their profession. The mean time working in Primary Health Care was 4.3 years [95% CI: 3.3 to 5.3 years], and 52 (78.8%) professionals had between zero and five years working in Primary Health Care services.

It was observed that 33.3% of nurses and 52.6% of nursing assistants/technicians had some degree of anxiety; 35.7% of nurses and 31.6% of nursing assistants/technicians also had some degree of depression. There was no statistically significant association in anxiety levels regarding professional category (p=0.098), gender (p=0.495), age group (p=0.786), education (p=0.236), marital status (p=0.541), physical activity practice (p=0.542), family income (p=0.215), having a chronic disease (p=0.114), and time working in Primary Health Care (p=0.696).

However, the percentage of professionals with anxiety among those who reported being dissatisfied with their profession (17.2%) was significantly higher than the percentage of dissatisfied professionals without anxiety (6.3%) (p=0.013).

Regarding depression, no statistically significant association was found in the levels of depression related to professional category (p=0.463), gender (p=0.456), age group (p=0.562), education (p=0.119), marital status (p=0.461), physical activity practice (p=0.062), family income (p=0.895) and the time working in Primary Health Care (p=0.696).

However, the percentage of professionals with chronic diseases with depression (18.8%) was significantly higher than the percentage of professionals without chronic diseases with depression (15.6%) (p=0.045). On the other hand, the percentage of professionals who reported being satisfied with their profession and having depression (18.8%) was significantly higher than the percentage of professionals who were satisfied and not depressed (12.5%) (p=0.039). Table 1 shows that 52.3% of the participants presented anxiety symptoms related to some level of depression. The correlation between anxiety and depression was positive, statistically significant, and moderate (r=0.633; p=0.000).
Anxiety, depression, and work engagement in Primary Health Care nursing professionals

### Table 1 – Correlation between anxiety and depression of nursing professionals in Primary Health Care. São José do Rio Preto, SP, Brazil, 2020

<table>
<thead>
<tr>
<th>Variables</th>
<th>Absence n (%)</th>
<th>Light n (%)</th>
<th>Moderate n (%)</th>
<th>Total n (%)</th>
<th>r</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anxiety</td>
<td>31 (47.7)</td>
<td>5 (7.7)</td>
<td>-</td>
<td>36 (55.4)</td>
<td>0.633</td>
<td>0.000</td>
</tr>
<tr>
<td>Slight</td>
<td>10 (15.4)</td>
<td>6 (9.2)</td>
<td>2 (3.1)</td>
<td>18 (27.7)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moderate</td>
<td>3 (4.6)</td>
<td>4 (6.2)</td>
<td>1 (1.5)</td>
<td>8 (13.3)</td>
<td>-0.346</td>
<td>0.024</td>
</tr>
<tr>
<td>Severe</td>
<td>-</td>
<td>1 (1.5)</td>
<td>2 (3.1)</td>
<td>3 (4.6)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>44 (67.7)</td>
<td>16 (24.6)</td>
<td>5 (7.7)</td>
<td>65 (100.0)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Significant correlation at 1% level (p≤0.01)

The levels of work engagement of Primary Health Care nursing professionals ranged from 4.2 to 4.4 and were rated as high in all dimensions of the Utrecht Work Engagement Scale (Table 2).

### Table 2 – Levels of work engagement of nursing professionals in Primary Health Care. São José do Rio Preto, SP, Brazil, 2020

<table>
<thead>
<tr>
<th>Dimensions of the Utrecht Work Engagement Scale</th>
<th>Anxiety</th>
<th>Depression</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vigor</td>
<td>5.0</td>
<td>4.3±1.1</td>
</tr>
<tr>
<td>Dedication</td>
<td>4.5</td>
<td>4.4±1.3</td>
</tr>
<tr>
<td>Absorption</td>
<td>4.0</td>
<td>4.2±1.2</td>
</tr>
<tr>
<td>General Score</td>
<td>4.0</td>
<td>4.2±1.1</td>
</tr>
</tbody>
</table>

*Significant correlation at the 5% level (p≤0.05)

### Table 3 – Correlation between work engagement, anxiety, and depression of nursing professionals in Primary Health Care. São José do Rio Preto, SP, Brazil, 2020

<table>
<thead>
<tr>
<th>Variables</th>
<th>Anxiety</th>
<th>Depression</th>
</tr>
</thead>
<tbody>
<tr>
<td>dedication</td>
<td>-0.550</td>
<td>-0.278</td>
</tr>
<tr>
<td>p-value</td>
<td>0.000</td>
<td>0.024</td>
</tr>
<tr>
<td>Absorption</td>
<td>-0.346</td>
<td>-0.206</td>
</tr>
<tr>
<td>p-value</td>
<td>0.005</td>
<td>0.097</td>
</tr>
<tr>
<td>Vigor</td>
<td>-0.534</td>
<td>-0.351</td>
</tr>
<tr>
<td>p-value</td>
<td>0.000</td>
<td>0.004</td>
</tr>
<tr>
<td>General Score</td>
<td>-0.473</td>
<td>-0.272</td>
</tr>
<tr>
<td>p-value</td>
<td>0.000</td>
<td>0.027</td>
</tr>
<tr>
<td>Depression</td>
<td>0.562</td>
<td>-</td>
</tr>
<tr>
<td>p-value</td>
<td>0.000</td>
<td>-</td>
</tr>
</tbody>
</table>

*Significant correlation at the 1% level (p≤0.01); †Significant correlation at the 5% level (p≤0.05)

### Discussion

The correlation was weak between anxiety and absorption (r=-0.346; p=0.005) and between depression and dedication (r=-0.278; p=0.024), absorption (r=-0.206; p=0.009), vigor (r=-0.351; p=0.004) and overall score (r=-0.272; p=0.027); and moderate correlation between anxiety and dedication (r=-0.550; p=0.000), vigor (r=-0.534; p=0.000) and overall score (r=-0.473; p=0.000). The correlation between anxiety and depression was positive, statistically significant, and moderate (r=0.562; p=0.000) (Table 3).
ty of care and the effectiveness of health care for the population.

These findings show that the mental health conditions of nursing professionals in Primary Health Care teams require the implementation of health promotion and recovery strategies, which can contribute to improving the quality of life and promote the well-being of these professionals. Nevertheless, they point to the need for efforts to direct care strategies to nursing professionals, such as the implementation of policies for welcoming and supporting the daily suffering and needs related to the work practice, in addition to investments in infrastructure and improvements in working conditions and career.

Regarding the results, it is observed that the profile of the professionals evaluated corroborates the profile of the Brazilian nursing workforce, consisting mostly of mid-level professionals (nursing assistants/technicians), female and aged less than 40 years. Moreover, it is like the professional and sociodemographic profile of Primary Health Care workers reported in national and international literature.

The study also showed that there is an important percentage of nursing professionals with some degree of anxiety or depression. Although the results did not show a statistically significant association in the presence of anxiety and depression in relation to gender and marital status, the relevant percentage of professionals with anxiety and depression may be related, in part, to the profile of the professionals studied, formed by female and married workers. According to the literature, there is a predominance of emotional disorders among married workers, due to the roles played by women at work and at home, with double working hours and greater physical and emotional exhaustion.

Moreover, there is a frequent and significant occurrence of anxious and depressive symptoms among these professionals, both in Primary Health Care and in services of other levels of complexity, with higher risk for women who report loss of interest or pleasure in performing their activities. It is noteworthy, however, that the development of depressive disorders or psychological suffering in nursing professionals can be influenced by intrinsic and extrinsic factors such as overload, emotional exhaustion, lack of social support, low family income and sense of coherence.

Furthermore, workers of the Family Health Strategy units are exposed to several factors that contribute to the development of anxiety. Among some factors involved are work overload and emotional demands resulting from living with others’ suffering. In addition, inadequate conditions for work performance and devaluation of nurses also favor the onset of depressive symptoms in these professionals.

Regarding job satisfaction and the occurrence of anxiety and depression episodes, there is evidence of higher occurrence of anxiety and depression episodes in health professionals with lower levels of empathy. In this case, the relationship between mental health and the empathic profile of professionals may interfere in the level of job satisfaction, since the impairment of empathic capacity may affectively harm the individual and cause withdrawal from his social interactions, including the work environment.

Professionals who are satisfied with their work practice tend to present fewer depressive symptoms. In this sense, it is considered that, by presenting itself as a favorable place for the professional’s performance, the work environment directly influences their levels of satisfaction and interferes in their mental health, having a direct impact on the quality of life of workers and on the quality of care offered to users.

The fact that this study identified higher levels of depression among nursing professionals who said they were satisfied with their profession may be related to the elevated levels of work engagement of these professionals who, although they have significant levels of anxiety and depression, have elevated levels of energy and mental resilience (vigor), pleasure and positive emotional involvement with the work activity.
These results related to work engagement corroborate national and international studies developed with professionals from Primary Health Care services and show that, despite psychological impairment, nursing professionals show high willingness and initiative and favorable internal resources to deal with the demands of the care work in the Family Health Strategy, evidenced by elevated levels of dedication, absorption, and vigor⁴,¹⁷.

The fact that the presence of anxiety and depression among professionals does not compromise engagement and satisfaction levels may be related to the low correlation found between work engagement levels, anxiety, and depression. In this context, work engagement stands out as a positive factor that improves the work performance of nursing professionals. And professionals with better levels of work engagement tend to produce better results, since their engagement and work performance overcome the difficulties present in the work environment⁴.

**Conclusion**

The study showed that there is an important percentage of nursing professionals with significant levels of anxiety and depression, many with both health conditions. Even so, the professionals showed elevated levels of work engagement, that is, despite the emotional commitment, they have enthusiasm, energy, and willingness to work with the Family Health Care teams, as well as high resilience.

**Collaborations**

Julio RS contributed to the writing of the article. Penha JGM, Oliveira AMN, Nascimento VF and Oliveira SM contributed to the relevant critical review of the intellectual content. Lourenção LG and Gazetta CE contributed to the design, analysis, and interpretation of the data. All authors approved the final version to be published.

**References**


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