

## NURSING PROFESSIONALS' ANXIETY AND FEELINGS IN TERMINAL SITUATIONS IN ONCOLOGY

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*This study aimed to investigate, through a cross-sectional study, factors that influence anxiety levels and feelings of a nursing team who care for terminal patients with cancer. The sample consisted of 50 Nursing Assistants and Technicians from the Hospital reference on cancer care in Rio Grande do Norte, Brazil. Data were collected through the State-Trait Anxiety Inventory. Results showed that 69.8% of the professionals have medium anxiety levels and 30.2% have high levels of anxiety. The Number of Patients attended and "Working in another Institution" interfered in the anxiety levels. The most remarkable professionals' feelings were suffering and sadness, and Child was the most difficult age group to care for. Studies which develop support strategies to those health professionals are necessary to reduce and/or to prevent high anxiety and stress levels.*

DESCRIPTORS: nursing; anxiety; terminally ill; neoplasms

## ANSIEDADES Y SENTIMIENTOS DE LOS PROFESIONALES DE ENFERMERÍA EN SITUACIONES DE TERMINALIDAD EN ONCOLOGÍA

*Se trata de una investigación transversal que evaluó el nivel de ansiedad del equipo de enfermería que se dedica al enfermo terminal con cáncer, investigando los factores que influyen en este equipo, así como los sentimientos de los profesionales ante la atención a estos enfermos. Fueron analizados 50 auxiliares y técnicos de enfermería del hospital de referencia de atención al cáncer de Rio Grande do Norte, Brasil. Datos fueron recolectados a través de un cuestionario y del Inventario de Ansiedad Rasgo-Estado. Resultados revelaron que el 69,8% posee ansiedad-estado media y el 30,2% alta. El número de enfermos atendidos y 'trabajar en otra institución' interfirieron en el nivel de ansiedad-estado. Los sentimientos más destacados fueron sufrimiento y tristeza, y 'niño' fue indicado como el grupo de edad más difícil de dedicarse. Se verifica la necesidad de estrategias de apoyo para los profesionales a fin de reducir y/o prevenir altos niveles de ansiedad y estrés.*

DESCRIPTORES: enfermería; ansiedad; enfermo terminal; neoplasias

## ANSIEDADES E SENTIMENTOS DE PROFISSIONAIS DA ENFERMAGEM NAS SITUAÇÕES DE TERMINALIDADE EM ONCOLOGIA

*Trata-se de investigação de caráter transversal que avaliou o nível de ansiedade da equipe de enfermagem que lida com o paciente terminal com câncer, procurando identificar os fatores que a influenciam, bem como os sentimentos dos profissionais frente ao atendimento destes pacientes. Foram analisados 50 auxiliares e técnicos de enfermagem do hospital de referência de atendimento ao câncer do Rio Grande do Norte. Os dados foram coletados através de questionário e do Inventário de Ansiedade Traço-Estado. Os resultados revelaram que 69,8% dos profissionais possuem Ansiedade-Estado média e 30,2% alta. O número de pacientes atendidos e 'trabalhar em outra instituição' interferiram na Ansiedade-Estado. Os sentimentos mais destacados foram sofrimento e tristeza, e 'criança' foi apontada como sendo a faixa-etária mais difícil de se lidar. Verifica-se a necessidade de realização de estratégias de apoio para profissionais a fim de reduzir e/ou prevenir altos níveis de ansiedade e estresse.*

DESCRITORES: enfermagem; ansiedade; doente terminal; neoplasias

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## INTRODUCTION

Studies have demonstrated that health teams in hospitals are under the risk of stress and tension at work<sup>(1-2)</sup>, especially those in nursing, highlighted as the 4th most stressing work in the public sector<sup>(3)</sup>. This risk of tension is due to the fact that these professionals deal every day with several occupational stressors, such as working in an environment where death and dying are part of their routine<sup>(4-5)</sup>, especially for professionals working with patients with severe diseases<sup>(5)</sup>, with excessive workload and lack of physical, material and human resources<sup>(6)</sup>. Other variables may maximize this tension; there are investigations that state that oncology nursing is one of the most stressing activities<sup>(7)</sup>, although there are controversies<sup>(8)</sup>. The fact is that dealing with cancer patients<sup>(9)</sup> and with terminality<sup>(10)</sup> is described as stressful and emotionally demanding for nursing professionals<sup>(5,9-10)</sup>, since death is seen as a failure to give efficient and effective care<sup>(11)</sup>.

In Brazil this becomes more complex, because professionals frequently face a reality where there are more patients than beds, crowded emergency rooms, forcing them very often to select who will be cared for, and how they will be treated<sup>(4)</sup>.

Due to these issues and the absence, in our environment, of more specific studies monitoring the level of anxiety, and the feelings of the nursing team dealing with terminal cancer patients, this study aimed at: 1. Assessing the level of anxiety of the nursing team dealing with terminal cancer patients, to identify the factors that influence the last; 2. Identifying the feelings of the team regarding terminal patients with cancer; 3. Identifying in which stage of human development (childhood, adolescence, adulthood, or old age, in their corresponding age groups) of these patients they find it harder to perform their job; and 4. What is the possible explanation given by these professionals for the age group chosen?

It is important to highlight that anxiety is one of the stress indicators (personal depletion interfering in the life of individuals)<sup>(6)</sup> and may become pathologic when it is more intensive<sup>(3)</sup>. Worsening of this situation may lead to syndromes, such as for example, the *Burnout*, that involves exhaustion, caused by an excessive burnout of energy. This syndrome is currently studied by several authors<sup>(5,12)</sup>, who point out the risk of burnout in health professionals, especially nursing that, as already mentioned, is a career considered extremely stressful<sup>(3,12)</sup>.

Thinking about these issues, we believe that the current study will help becoming aware of the triggering factors of anxiety in professionals dealing with dying cancer patients, enabling to identify the level of anxiety of these professionals, as well as the feeling they have when they are working within this reality. Being aware of this may help designing care strategies for professionals that dedicate themselves to this work, so as to reduce high levels of anxiety and stress, extremely harmful to health and to professional performance.

## SUBJECTS AND METHODS

### Sample

Fifty nursing professionals (Nurse Assistants and Technicians) from both genders of a reference hospital in the care for cancer in Rio Grande do Norte were contacted. It is worth mentioning that there was a sample loss of 07 participants, that refused to take part in the study, because they declared they had no time to answer to these instruments. Thus, the study had 43 professionals, 18 assistants and 25 technicians. Inclusion criteria used were: care for patients in terminal stage in all age groups, and written consent to take part in the survey.

### Instrument

To assess anxiety, Spielberger State-Trait Anxiety Inventory (STAI)<sup>(13)</sup> was used in the Brazilian version, known as IDATE. This instrument is the only assessing Trait Anxiety (A-Trait) and State Anxiety (A-State) and it has already been translated and validated into Portuguese<sup>(14)</sup>. IDATE is a self-applied inventory, made by two different scales designed to measure State (Part I) and Trait (Part II) of anxiety. A-Trait is defined as a relatively long lasting characteristic of subjects that goes beyond the boundaries of time and place, therefore, arising regardless of where they are or what they are doing. A-State refers to the moment or certain situation, to something external that triggers the process called anxiety<sup>(13)</sup>.

A questionnaire was also especially developed with the purpose of tracing the profile of the sample and to collect data referring to feelings of these professionals facing the situation of dealing with dying

cancer patients. To that end, the questionnaire approached the following issues: 1. If professionals notice any different feeling or behavior when dealing with terminally ill patients; 2. (If the previous answer was positive) Description of the feeling and/or behavior; 3. Description of the age group of the terminal patient where professionals are more encouraged to perform their work and the age group where they are less encouraged; and 4. Explanation for considering a certain age group as the most difficult to work with.

#### Collection of the data

Data were obtained after approval by the Ethical Committee in the period of 2005.2-2006.1. Initially the researcher explained to nursing professionals the objectives of the survey and the instruments that would be used. When patients agreed to take part on a survey, they gave their written consent, and then IDATE and the questionnaire were individually applied. The time to perform all procedure was approximately 20 minutes.

Anxiety scores obtained through IDATE were assessed following the guidelines of the instrument<sup>(13)</sup>, then they were tabulated and underwent, together with the data from the questionnaire to statistical analysis using the *Statistic* program, version 6.0. To assess the outcomes obtained at IDATE, the following theoretical and methodological reference has been considered<sup>(14)</sup>: scores under 33 correspond to low level of anxiety, scores between 33 and 49, medium level of anxiety, and above 49, a high level of anxiety. For content analysis of the descriptive content of the questionnaire, a computer program for Lexical Analysis through Context of a Text Segment, ALCESTE\* was used.

## OUTCOMES

Regarding the profile of the sample, data demonstrated that 88% of professionals surveyed were female, 40% were in the age group from 30 to 34. Regarding marital status, 53% is single, and 44%

married. 30% of these professionals have worked in the institution from 12 to 24 months, 16% from 13 to 24 months, and 16% more than 97 months. Regarding daily working hours, 74% of them work 6 hours a day, and 26% 8 hours. Concerning the number of patients cared for every day, 34% take care of up to 10 patients, 21% of 11 to 15 patients, and 18% from 16 to 20 patients.

It was observed that the medium level of anxiety of assistants and nursing technicians is 48.14 for A-State and 46.74 for A-Trait, with standard deviation of 5.88 and 6.18, respectively. Regarding categorization of this outcome, according to the theoretical reference used<sup>(14)</sup>, 69.8% of these professionals present medium level of A-State (scores from 33 to 49) and 30.2% presented high level of A-State (score above 49). Regarding A-Trait, 74.4% presented medium level, and 25.6% high level.

To assess which qualitative variables studied would influence A-State, Pearson's Chi-square test was applied. We could see that one categorical variable (works for another institution) is associated with A-State of nursing professionals, since  $p\text{-value} < 0.05$  (Table 1).

Table 1 - Pearson's Chi-square test for A-State variable

State Anxiety	P-Value
State Anxiety x Gender	0.59614
State Anxiety x Marital Status	0.28798
State Anxiety x Works in another institution	0.01930
State Anxiety x Perception of different behavior	0.74590
State Anxiety x Age group that is harder to work with	0.88896
State Anxiety x Age group that is easier to work with	0.56222
State Anxiety x Professional category (Assistant/technician)	0.29430

This means that A-State is associated with these professionals working or not in other institutions. The proportion of high anxiety is greater when professionals work in another institution. When Correlation Analysis between A-State and Age, Time working in the institution, number of hours worked per day and number of patients cared for per day was performed, we could see through the matrix of correlation that A-State is correlated with the **number of patients cared for per day** ( $r=0.49$ ) with a value of 49% for a 5% significance level ( $p\text{-value} < 0.05$ ) (Table 2).

This program performs the analysis in four stages. The first organizes the material recognizing the unities of initial context (IUC), formed by the interviews, dividing them into text segments with similar size (called "Unities of Elementary Context" or UEC), grouping the occurrence of words according to their roots and performing calculations of their respective frequencies. Then, it classifies simple headings or the UEC, to obtain the greatest possible value in a test of association (*Chi-square*). On the third stage the classes found are described. In the level of analysis, they are made of several text segments (UEC) that have similar vocabulary. At the interpretative level, they are considered indicators of different notions. On the fourth stage, the UEC are provided with characteristics of each class, providing the context in which their vocabulary occurs

Table 2 - Correlation matrix for variable a-state

Correlation Matrix	A-State	Age	Time working (in months)	Number of hours worked	Number of patients cared for
A-State	1.00	0.26	0.22	-0.06	0.49
Age	0.26	1.00	0.54	0.09	0.06
Time working	0.22	0.54	1.00	0.36	0.21
Number of hours worked	-0.06	0.09	0.36	1.00	0.11
Number of patients cared for	0.49	0.06	0.21	0.11	1.00

When this same analysis was performed for A-Trait, it was possible to see that A-Trait presented a mild correlation with **Age** and with **Time working in the institution**  $r = 0.2$  and  $r = 0.32$  (respectively) (Table 3).

Table 3 - Correlation matrix for variable A-Trait

Correlation Matrix	A-Trait	Age	Time working (in months)	Number of hours worked	Number of patients cared for
A-Trait	1.00	0.42	0.32	-0.14	0.21
Age	0.42	1.00	0.54	0.09	0.06
Time working	0.32	0.54	1.00	0.36	0.21
Number of hours worked	-0.14	0.09	0.36	1.00	0.11
Number of patients cared for	0.21	0.06	0.21	0.11	1.00

That is, 42% of the variation in the A-Trait is due to the variation in Time working in the institution, for a 5% significance level ( $p$ -value  $< 0.05$ ). When the correlation of variable A-State was performed with variable A-Trait and the variables mentioned above, it was seen that A-States presents a mild correlation with **A-Trait** and with **number of patients cared for in the day** ( $r = 0.53$  and  $r = 0.49$  respectively), for a 5% significance level ( $p$ -value  $< 0.05$ ).

Although Correlation and Chi-Square tests previously performed had demonstrated **the number of patients cared for per day and working in another institution** as the only variables related to A-State, all variables considered in the questionnaire have been considered (Refer to Table 1 and Table 2) to perform Linear regression using the process *Backward Stepwise* to select variables, using A-State as a dependent variable. Outcomes of ANOVA ( $p = 0.001931$ ) demonstrated that there are strong evidences that the adjusted model demonstrate the relationship between the dependent and independent variable. For the relationship described in the model, independent variables selected explain 23.71% ( $R^2 = 0.23715867$ ) of the variation of A-State of the professionals assessed, where only the variable **number of patients cared for** was significant to

make the model. Based on the regression model ( $Y = \beta_0 + \beta_1 X_1 + \epsilon$ ), in which the parameters  $\beta_0$  and  $\beta_1$  represent the regression coefficients,  $Y$  represents the dependent variable,  $X_1$ , the independent variable, and  $\epsilon$  the error; the regression model estimated was:  $\hat{Y} = 44.388 + 0.197 X$ , when:  $\hat{Y}$  = Estimated A-State, and  $X$  = number of patients cared for per day. This means that:

**Estimated A-State = 44.88 + 0.9718 \* number of patients cared for per day**

Regarding feelings of health professionals facing the terminal patient and cancer, outcomes demonstrated that 65% of professionals stated they felt different when they treat patients in this situation. Among this 65%, 25% stated they suffered and felt sad, 17% felt anguish, 7% had feeling of hopelessness, 5.1% fear, 5.1% attention, 5.1% apprehension, 5.1%, love, 5.1% life, 5.1% humanity, 5.1% loss, 5.1% delicate, 5.1% needy, 5.1%, concern. Additionally, 77% of nursing assistants and technicians point out **children** as the age group where they find most difficult in this type of care. On the other hand, 42% of professionals say that the elderly is the age group where they have less trouble caring for when they are terminally ill.

To understand the outcomes above, using ALCESTE, the explanation given by these professionals for the choice of age group that most mobilized them emotionally when dealing with terminally ill cancer patient was assessed, in this case, the group was children. It is important to highlight that we will examine the fourth stage of this program, that is, the stage where the UCE most characteristic of each Class is given, so we can have the context where the vocabulary was used. ALCESTE has identified the presence of 4 classes. However, only Class 1 was assessed, corresponding to the professionals (77%) that pointed out children as the most difficult age group to deal with when caring for terminal patients. The other classes were made by professionals that pointed out the remaining age groups (adolescent, adult, or elderly) as the most demanding for them when dealing with terminal patients. In this process, ALCESTE identified that in the narrative of these professionals there are some words that were more frequently used in the speech, making it possible to build a representation of what these professionals feel and think when they care for patients in this reality. The Lexical Analysis performed by ALCESTE in the narrative of these professionals highlighted the

presence of 4 most significant words in Class 1: 'Not' (Chi-Square = 17.56), 'Lived' (Chi-Square = 10.86), 'Yet/Still' (Chi-Square = 10.86), and 'a lot' (Chi-Square = 8.55). ALCESTE selects these words based on the answers described by professionals and the greater the Chi-square, the more significant the word is in the speech. Thus, the explanation given by these professionals for the difficulty in dealing most with children was guided by the reason that children "have still not lived a lot" and because of that they got more involved when children are terminally ill. The following statements can be an example:

*...I find it hard to see children sick, I am very touched. I remember my grandchildren that still have a lot to live they have just lived a little and are already dying... C.L.U (Nurse Technician).*

*...Because they are young patients, children, they have their whole life ahead of them and this situation is very sad, one may be angry, despaired and so on in this situation. The family get sad and professionals too... C.L.U (Nurse Assistant).*

## ANALYSIS

Based on these outcomes, it was observed that mean level of A-State (48.14) and of A-Trait (46.74) corresponded to mean level of anxiety according to the reference used<sup>(14)</sup>. This means that, overall, in these professionals anxiety, both as a personality trait and as due to a reaction to a certain event (in this case, the anxiety after caring for a patient with cancer terminally ill) is in the middle level. However, we must point out that value A-State is almost surpassing the maximum value to consider it High Anxiety (>49), and also that level A-Trait was lower than A-State, suggesting that the situation these professionals face (caring for terminally ill patients) increased their level of anxiety in some way. On the other hand, IDATE was not applied before and after the exposure of professionals to terminal patients, preventing us to state more precisely that this increase in anxiety comes from this care, also because surveys show that hospitals are stressful and lead to anxiety<sup>(4)</sup>. Thus, this increase in anxiety may be only due to hospital work.

For our sample only the **Number of patients cared for per day and Working in another institution** presented significant correlation for A-State. Therefore, the more patients professionals see every day, the greater their A-State will be. Thus,

high Number of patients cared for per day and working in another institution would be risk factors for these professionals dealing with this demand. More precisely: Multiple Linear Regression could build a model where it is estimated that, on average, A-State increased 0.197 for each increase of one patient cared for per day by these professionals. A similar conclusion was published by a survey where the outcomes show that Lithuanian General Practitioners that have high load of patients are at risk of stress<sup>(1)</sup>. Double jobs are also pointed out as source of stress and tension for health professionals<sup>(2)</sup>.

Although the literature points our variables such as the number of hours worked<sup>(2)</sup> as a factor contributing to tension and anxiety of professionals; in this sample correlations between anxiety and this variable were not seen. There are studies that present a correlation between level of tension and age<sup>(12)</sup>. In the present survey, a similar outcome was presented, with a small correlation between A-Trait (anxiety as a more stable characteristic of the subject) with **Age and Time working in the Institution**: the greater the age and the time working in the institution, the greater A-Trait was. If A-Trait increases with the advance of Age and Time Working in the Institution and if it is correlated with A-State as suggested by the literature<sup>(13)</sup> and the statistical analysis of our study, this means that Age and Working time will not only increase A-Trait but also A-State. This suggests that dealing with this reality may lead to, in the long run, an increase in anxiety of the subject, making this job risky to the health of professionals.

Another essential fact to the discussion in the practice of these professionals is the issue of the death of patients. According to some studies the possibility of death of patients may lead to stress and a feeling of powerlessness of health professionals<sup>(10)</sup>. This may be understood because society makes these professionals accountable for maintaining life<sup>(4)</sup>, and when this "mission" cannot be reached it leads to anxiety, despair and frustration<sup>(4,10)</sup>. This has also been demonstrated by our study, when 65% of the professionals studied stated that they felt different when they cared for terminal patients, they have also stated feelings such as suffering, sadness, anguish, powerlessness, fear, apprehension, concern. These feeling presented in our study were similar to those of a survey<sup>(10)</sup> with cancer physicians of the city of São Paulo/SP, and it was identified that in 80% of the sample, the feelings regarding terminal patients were

of powerlessness, sadness, pity, distress, frustration, indignation, anxiety, depression, suffering, anguish, emotional exhaustion, failure, and dissatisfaction. Thus, terminal diseases are frequently feared, and it is common that in hospitals, professionals change their shifts to avoid dealing with terminal patients.

Avoiding death in hospitals, however, is not possible, because as medicine had become a practice urban-center and hospital-center, hospitals have become the privileged "site" of death, and in terminal patients, this reality becomes even more present and objective, demanding a realistic attitude of professionals regarding their patients who are dying<sup>(10)</sup>. In addition to the issue of terminality, for professionals surveyed, there is another complementary issue: the stigma of cancer as a fatal disease<sup>(9-10)</sup>, which may lead to tensions and anxiety for these professionals<sup>(5,10)</sup>. However, it is still unknown if **working with cancer patients** is a more stressful activity than others, because the studies in this area are contradictories<sup>(2)</sup>.

On the other hand, we may conclude that **childhood** was the development phase that was most difficult for the assessed professionals to deal with regarding terminal cancer. Overall, the explanation given by these professionals was that children in terminal stage are more difficult to deal with because they have not lived enough and have their whole lives ahead of them. This was one of the initial hypotheses of this study, since death, especially during childhood, is many times seen as medical failure<sup>(11)</sup>. It is as if childhood death was something unacceptable, against the natural order, and thus, it is transferred to a remote time, the elderly. Therefore, death of the elderly is more acceptable than that of the young people by the team<sup>(15)</sup>. This perception seems to be shared by members of our study when most of them pointed out the elderly as the age group where they found it easier to care in terminal stage.

From this study, it was possible to understand better the emotional aspects of the nursing team facing terminality and cancer, issues that lead to anxiety and stress<sup>(1,4)</sup>. However, it is important to highlight that this study presents limitations: first, it represents the experience of a single Cancer center, although it is a reference in the State of Rio Grande do Norte; another aspect is the refusal of some professionals to take part in the study, because they had no time. Additionally, we cannot say that the increase in the level of anxiety of these professionals is because they deal with cancer and terminality, this could only be possible if the test had been applied in two times - before and after care - and the performance of the survey in another institution dealing with another specialty rather than oncology.

Last, the outcomes of the survey, suggest the need for intervention models of care, as for example, support groups, and/or reflection groups, for health professionals facing this reality, because the emotional suffering of these professionals may interfere not only in their health but also in the quality of care. Thus, further studies are necessary to deepen these issues and also, other studies that not only design but also make support strategies viable for health professionals dealing with terminality so as to contribute to the prevention of occupational diseases and to improve the quality of life of professionals and their patients. These surveys will definitely corroborate the prevention of occupations diseases.

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