

# Anxiety and depressions in relatives of patients admitted in intensive care units\*

Ansiedade e depressão em familiares de pacientes internados em unidade de cuidados intensivos

Ansiedad y depresión en familiares de pacientes internados en una unidad de cuidados intensivos

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#### **ABSTRACT**

**Objective:** to identify the occurrence of symptoms of anxiety and/or depression in relatives of patients admitted in an intensive care unit and correlate the presence of such symptoms with the relatives' gender, age, and with the total length of the patient's hospital stay. **Methods:** The sample consisted of 39 relatives of critical patients. The Hospital Anxiety and Depression Scale was used for data collection. **Results:** 11 (28.2%) possible cases of anxiety, 17 (43.6%) probable cases of anxiety, (35.9%) possible cases of depressions and 7 (17.9%) probable cases of depression were identified. **Final Considerations:** The emotional support and satisfaction of the relatives' necessities must be prioritized in the nursing care plan to prevent such disorders.

Keywords: Anxiety; Depression; Professional-family relations; Intensive care units

#### **RESUMO**

Objetivo: Identificar a ocorrência de sintomas de ansiedade e/ou depressão em familiares de pacientes internados em uma unidade de cuidados intensivos e correlacionar a presença desses sintomas com o sexo e idade de familiar e com o tempo de internação dos pacientes. Métodos: Fizerem parte da amostra 39 familiares de pacientes em estado crítico de saúde. Para coleta de dados foi utilizada a Escala Hospitalar de Ansiedade e Depressão. Resultados: Foram identificados 11 (28,2%) possíveis casos de ansiedade, 17 (43,6%) prováveis casos de ansiedade, 14 (35,9%) possíveis casos de depressão e 7 (17,9%) prováveis casos de depressão. Considerações finais: O suporte emocional e a satisfação das necessidades dos familiares devem ser prioridades no plano de assistência de enfermagem, de forma a prevenir esses transtornos.

Descritores: Ansiedade; Depressão; Relações profissional-família; Unidades de terapia intensiva

#### **RESUMEN**

**Objetivo:** Identificar la ocurrencia de síntomas de ansiedad y /o depresión en familiares de pacientes internados en una unidad de cuidados intensivos y correlacionar la presencia de esos síntomas con el sexo y edad del familiar y con el tiempo de internamiento de los pacientes. **Métodos:** Hicieron parte de la muestra 39 familiares de pacientes en estado crítico de salud. Para la recolección de los datos fue utilizada la Escala Hospitalaria de Ansiedad y Depresión. **Resultados:** Fueron identificados 11 (28,2%) posibles casos de ansiedad, 17 (43,6%) probables casos de ansiedad, 14 (35,9%) posibles casos de depresión y 7 (17,9%) probables casos de depresión. **Consideraciones finales:** El soporte emocional y la satisfacción de las necesidades de los familiares deben ser prioridades en el plan de asistencia de enfermería, de forma a prevenir esos trastornos.

Descriptores: Ansiedad; Depresión; Relaciones profesional-familia; Unidades de terapia intensiva

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# **INTRODUCTION**

The confirmation of a disease in an adult individual, who plays well-defined roles in the family, and his/her hospitalization can unbalance the whole family structure<sup>(1-2)</sup>.

Hospitalization incurs in breaking the family bonds, leading the patient and family members to experience profound changes in their lives. During this stage, it is common for them to experience changes in roles, as well as feelings of fear and insecurity that can trigger crises<sup>(2)</sup>.

Fear of death, uncertainties related to the prognostics and treatment, emotional conflicts, concerns about the financial conditions, changes of roles and disruption of routine can cause anxiety and depression in some family members<sup>(3)</sup>.

The nurse, usually involved with care and fulfilling the patients' needs, may fail to notice the angst, fear and suffering undergone by the family members. It is fundamental that the healthcare team is prepared to establish a relation of empathy and trust with the family. For so, it is necessary that these professionals communicate adequately, so that they can solve doubts and fulfill the relatives' necessity of information<sup>(4)</sup>.

The lack of information and uncertainty can cause apprehension and anxiety. In a nationwide study<sup>(4)</sup>, whose purpose was the identification of the necessities of the relatives of patients admitted into intensive care units (ICUs), the authors concluded that the necessities reported more frequently were: being sure that the patient is receiving the best treatment (89.7%), knowing concrete facts about the progress of the patient (84.6%) and knowing exactly what is being done for their relative (82.1%). These results reflect the human being's necessity of feeling safe and being sure that everything will turn out right, since doubts are the source of unpleasant feelings such as anxiety and angst<sup>(4)</sup>.

Literature about the levels of anxiety and depression in relatives of hospitalized patients is scarce. Nationwide studies measuring and evaluating these psychological alterations in relatives of patients admitted in ICUs could not be found. Studies where the symptoms of anxiety and depression in different populations were found, such as in accompanying partners and patients about to be submitted to cineangiography<sup>(2)</sup>, or in mothers of hospitalized preterm neonates<sup>(5)</sup>.

The evaluation and identification of indicative signs of anxiety and depressive episodes in relatives of hospitalized patients constitute a major function of the nurse, since extremely anxious or depressed relatives may not be able to bear the pressure imposed by hospitalization and the disease, and start to transfer their fears, concerns and grievances to the patient (which can interfere negatively in the treatment)<sup>(4)</sup>.

In view of what is exposed, this study had the

objective of identifying the occurrence of symptoms of anxiety and/or depression in relatives of patients admitted into ICUs, and correlate the presence of such symptoms with the gender and age of the relative, and the length of the patient's hospital stay.

#### **METHODS**

The study was developed in the waiting room of the ICU of a large general private hospital in the southern region of the city of São Paulo.

39 family members of patients admitted into the ICU were part of the study.

The inclusion criteria for this study were: being an adult, having a relative (with any type of family bond) admitted into the ICU for at least 24 hours and voluntarily agreeing in participating in the study by signing the term of consent.

The data collection instrument used in this study (Annex A) consisted of two parts. The first is a questionnaire to register the sample characterization data, and the second is the Hospital Anxiety and Depression Scale - HADS<sup>(6)</sup>, translated and validated for the Portuguese language<sup>(7)</sup>. This scale consists of two sub-scales, being one for anxiety and the other for depression. Each sub-scale has seven multiple-choice questions. There are four answer choices for each question, each with a score that can vary from 0 to 3. The total HADS score varies from 0 to 21 points (being 0 to 21 for anxiety and 0 to 21 for depression).

The HADS reliability index (alpha coefficient), according to Smarr<sup>(8)</sup>, varies between 0.78 and 0.93 for anxiety and 0.82 and 0.90 for depression. The sensitivity and specificity of this scale, when applied in accompanying partners, are respectively 78.2% and 69.9% to identify anxiety and 73.6% and 72.9% to identify depression<sup>(8)</sup>.

The interpretation of the HADS scores was performed according to the methodological reference adopted<sup>(6)</sup>. As such, a score between 0 and 7 was interpreted as "no case" of depression or anxiety; scores between 8 and 10 as a possible case and scores from 11 to 21 as a probable case<sup>(6)</sup>.

"Probable" means something that can be proven or that appears to be true<sup>(9)</sup>. Therefore, in this study, probable cases of anxiety and/or depression meant cases in which the relatives had important signs of these alterations, i.e., signs that could be confirmed by complementary analyses.

The word "possible" means something that has a chance of being or happening<sup>(10)</sup>. In this study, possible cases of anxiety and/or depression corresponded to those cases where anxiety and/or depression could be confirmed in case the intensity or the quantity of the identified signs and symptoms increased.

Data collection occurred in the first half of September, 2005, after being approved by the Review Board of the hospital where the study took place. The relatives were invited to take part in the study after visiting the patient.

After data collection, the variables were coded and stored in a database, using the application MS Excel XP.

Statistical analysis was performed with the use of the statistical program Statistical Package for Social Sciences (SPSS), version 15.0. The sample characterization data were analyzed descriptively. The qualitative variables were summarized in absolute and relative frequencies, and the quantitative variables were expressed in averages, standard deviations and minimum and maximum values.

Student's T test and Fisher's exact test (for the qualitative variables) were used for the comparative analysis between variables. The adopted level of significance was 0.05.

## **RESULTS**

The data about the sample characterization are presented next:

**Table 1 –** Characterization of the relatives of patients admitted into an ICU. São Paulo, 2005

| Characterization       | n  | %    |
|------------------------|----|------|
| Gender                 |    |      |
| Female                 | 28 | 71.8 |
| Male                   | 11 | 28.2 |
| Education              |    |      |
| College/University     | 18 | 46.1 |
| High School            | 14 | 35.9 |
| Elementary School      | 4  | 10.3 |
| Others                 | 3  | 7.7  |
| Religion               |    |      |
| Christian              | 26 | 66.7 |
| No answer              | 8  | 20.5 |
| Spiritist              | 5  | 12.8 |
| Type of relation       |    |      |
| Son/daughter           | 17 | 43.6 |
| Partner                | 6  | 15.4 |
| Sibling                | 5  | 12.8 |
| Grandson/Granddaughter | 5  | 12.8 |
| Nephew/Niece           | 2  | 5.1  |
| Others                 | 4  | 10.3 |

39 relatives took part in the study, aged 42 years on average, with the minimum age being 18 years and the maximum being 79. The standard deviation identified for the age was 15.3 years.

According to Table 1, it can be observed that most relatives (71.8%) were female.

Regarding education, it should be noted that 18 (46.1%) family members had college education and 14 (35.9%) had full high school education.

As for the relation, sons and daughters were identified more frequently, representing 43.6% of the sample total.

The average length of the hospital stay for the patients

related to the people in this study was 41.6 days, with the minimum length being 24 hours and the maximum 90 days. Standard deviation was 29.1 days.

Next is the interpretation of the HADS scores identified in relatives of patients admitted into an ICU.

**Table 2 –** Relatives of patients admitted into an ICU, according to the interpretation of the Hospital Anxiety and Depression Scale scores. São Paulo, 2005.

| Psychological                  | Anxiety |      | Depression |      |
|--------------------------------|---------|------|------------|------|
| alterations Interpretation     | n       | %    | n          | 0/0  |
| No case (0 to 7 points)        | 11      | 28.2 | 18         | 46.2 |
| Possible case (8 to 10 points) | 11      | 28.2 | 14         | 35.9 |
| Probable case (over 11 points) | 17      | 43.6 | 7          | 17.9 |

It is observed in table 2 that when the number of possible anxiety cases (11) is added to the number of probable cases (17), the result is 28 relatives (71.8%). Regarding depression, the addition of possible cases with the probable cases yields 21 relatives (53.8%). These results show that most of the sample had suggestive signs of the psychological alterations being studied.

Next is the distribution of the members of the sample, according to the type of relation and the presence of symptoms of anxiety and/or depression.

**Table 3** – Type of relation, according to the presence of symptoms of anxiety and/or depression. São Paulo, 2005

| n  | Symptoms of anxiety |                              | Symptoms of depression  |   |
|----|---------------------|------------------------------|---|---|
|    | n                   | %                            | n   | 0/0   |
| 17 | 13                  | 76.5                         | 9   | 52.9  |
| 6  | 4                   | 66.6                         | 5   | 83.3  |
| 5  | 4                   | 80.0                         | 4   | 80.0  |
| 5  | 2                   | 40.0                         | -   | -   |
|    |                     |                              |   |   |
| 2  | 1                   | 50.0                         | 1   | 50.0  |
| 4  | 4                   | 100.0                        | 2   | 50.0  |
|    | 17<br>6<br>5<br>5   | n an n 17 13 6 4 5 4 5 2 2 1 | n anxiety n %  17 13 76.5 6 4 66.6 5 4 80.0 5 2 40.0 2 1 50.0 | n         anxiety         de           n         %         n           17         13         76.5         9           6         4         66.6         5           5         4         80.0         4           5         2         40.0         -           2         1         50.0         1 |

A high number of relatives with symptoms of anxiety and depression can be observed in Table 3.

According to Fisher's exact test, there was no statistically significant difference between the gender of the relative and the presence of symptoms of anxiety (p = 0.11) and/or depression (p = 0.28).

The existence of symptoms of anxiety and depression was considered when the HADS score was equal or higher than 8.

In the analysis of correlation between the length of the patient's hospital stay and the presence of symptoms of anxiety, using Student's T test, p = 0.40. In the correlation between the length of the patient's hospital

stay and the presence of symptoms of depression, the obtained result was p = 0.10. These results indicated that there was no statistically significant relation between these variables.

For the variable age, Student's T test also showed that there was no statistically significant relation with the presence of symptoms of anxiety (p = 0.30) and/or depression (p = 0.25).

#### **DISCUSSION**

According to the results presented in Table 1, most relatives have a potential to access and comprehend information and acquire new knowledge, since, regarding education, 18 (46.1%) had college or university education and 14 (35.9%) had full high school education. From these results, most relatives are capable of understanding the processes of disease and hospitalization that their family member is undergoing and also to create adequate mechanisms of coping.

In Table 1, it is observed that 8 (20.5%) of the family members did not answer the question about religion present in the instrument. It is known that the hospitalization of a relative can make some family members to have problems related to religion, altering their spirituality. Such times can bring changes such as religious conversion, strengthened beliefs, abandonment of religion and loss or questioning of one's faith.

Disease and hospitalization can cause conflicts in the relatives' beliefs and values. Religiosity and spirituality are associated to these changes in values, which were investigated in this study since they provide data about how the relatives obtain the necessary support to cope with these experiences.

According to Table 1, most relatives (79.5%) has a religion, with 26 (66.7%) being Christian and five (12.8%) being Spiritists. Spirituality and religion are considered tranquilizing agents that minimize stress and anxiety. Scientifically, they are considered strategies to cope with stress.

According to Table 2, it is observed that 11 (28.2%) relatives are possible cases of anxiety and 17 (43.6%) are probable cases of anxiety.

Anxiety can be defined as a feeling of apprehension, vague in nature, characterized by feelings of uncertainty and impotence. It constitutes an individual, subjective experience, usually a consequence of an unknown situation or a new experience. This new situation or experience can be either pleasant (such as the birth of one's child) or unpleasant (such as the disease and hospitalization of a relative)<sup>(11)</sup>.

The high percentage of relatives with probable anxiety, as shown in Table 2, is a result that reinforces the fact that stressful events are factors that predict anxiety<sup>(12)</sup>.

The relation of stressful events with the appearance of anxiety and depression disorders was identified in other studies<sup>(13-14)</sup>. According to some researchers, in order for stressful events to result in symptoms of anxiety and/or depression, it is necessary that a genetic predisposition exists for the occurrence of such psychological alterations. Studies show that the individual capacities of interpreting and coping with stressful events are genetically influenced<sup>(13-14)</sup>.

Another aspect to be considered is how long the patient has been sick or hospitalized at the intensive care unit, and, consequently, how long the relative has been experiencing this stressful event. According to literature, the longer one is exposed to the stressful event, the more intense the symptoms of anxiety and/or depression<sup>(15)</sup>. However, in this study, Student's T test showed that there was no relation between the variables length of hospital stay and presence of symptoms of anxiety (p = 0.40) and depression (p = 0.10).

The nurse must acknowledge the signs and symptoms of anxiety early, implement strategies of prevention and attempt to minimize the stressful events, since the relative's anxiety, tension and apprehension can be transmitted to the patient and interfere in their health conditions, changing their clinical situation<sup>(3)</sup>.

During the process of identification of anxiety, it is fundamental that the nurse consider the culture of the person, since there is a considerable cultural variation in the expression of anxiety. In some cultures, anxiety is expressed mainly through somatic symptoms, and in others, by cognitive symptoms<sup>(16)</sup>.

Analyzing Table 2, it can be seen that seven (17.9%) probable cases of depression and 14 (35.9%) possible cases were identified. These data must be taken into consideration by specialists in the Psychology and Psychiatry fields so as to prevent further disorders and damages to the relatives' mental health.

Depressive episodes are characterized by variable mood, from irritable to sad. The depressed person experiences at least four of the following symptoms: changes in appetite or weight (usually reduced), changes in the sleep pattern and psychomotor activity, reduced energy, feelings of unworthiness or guilt, difficulties to think and concentrate or recurring thoughts about death, including suicidal ideas, plans or attempts at suicide<sup>(17-18)</sup>.

The high percentage of probable cases of depression presented in Table 2 is important, since it refers to a disorder that still does not exist, but that can become real if the necessary measures are not performed. Among such measures is the satisfaction of the biological, psychosocial and spiritual necessities of these relatives.

In the relatives where a possible or probable case of depression was identified, it is imminent that other characteristics of the disorder be investigated, among them the reduced execution of daily activities, reduced pleasure obtained from activities considered pleasant before, depressed humor, sadness, recklessness or prostration<sup>(18)</sup>.

In addition to the characteristics of depression, the analysis must also cover how long the symptoms are observed in the subject. According to literature<sup>(16-17)</sup>, to characterize depression, the symptoms must persist most of the time, during practically all days, for at least two consecutive weeks.

Depressed people are usually sad, discouraged, show depressed humor (observed in facial expression and body language) and frequently report lack of interest or pleasure in the execution of activities considered pleasant before. Psychomotor changes are associated to these symptoms, including restlessness and psychomotor retardation (slowed thoughts or body movements, low voice or mutism)<sup>(17)</sup>.

The results found in this study are similar to those found with the utilization of HADS<sup>(19)</sup>, where the researchers identified that 73.4% of the assessed relatives had symptoms of anxiety and 35.4% had symptoms of depression.

In Table 3, the high number of relatives presenting symptoms of anxiety and depression can be observed. In literature, the relation between anxiety and depression has been reported, mainly in seniors<sup>(20-21)</sup>. Some symptoms are common in both disorders, such as irritability, changes in the sleeping and eating patterns, difficulty of concentration and reduced memorization ability. This similarity of symptoms can make it difficult to define the diagnosis<sup>(22)</sup>.

Similarities for the vulnerability were found in a study<sup>(18)</sup> for the occurrence of anxiety and depression. However, the factors identified as "responsible" for such predisposition were different. In this study, the factors related to the occurrence of depression were observed to be related to the loss (death) of a friend or relative. Factors related to the occurrence of anxiety, however, referred to the development of a grave disease and/or

hospitalization<sup>(18)</sup>.

#### FINAL CONSIDERATIONS

Regarding anxiety, 11 (28.2%) possible cases and 17 (43.6%) probable cases were identified.

For depression, there were 14 (35.9%) possible cases and seven (17.9%) probable cases.

There was no statistically significant relation among the variables gender and age of the relative and the presence of symptoms of anxiety and/or depression. The same occurred with the variable length of the patient's hospital stay.

The purpose of this study was not to identify anxiety and/or depression. It is known that the diagnostic confirmation of such alterations depends on assessments that are not only physiological or behavioral, but also cultural, cognitive and affective.

Since HADS is a simple scale, easy to fill out and validated for the Brazilian culture, it is an important working tool for the nurse, who can use it to identify possible and probable cases of anxiety and/or depression in different groups of people and in different situations. The identification of traits or "clues" of such disturbances in relatives may indicate the necessity of having an assessment by a specialist in diagnosis and treatment of symptoms of anxiety and depression, as well as the necessity for emotional support from the whole healthcare team.

Due to the importance of the theme, we suggest that other, broader studies be performed, involving more relatives, so that it is possible to further analyze the phenomenon in question.

The results of this study could subsidize nursing care in the development of interventions focused on the family and the establishment of training and qualification programs for the nursing team, so that it can work with the relatives and accompanying partners better.

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# Annex A - Data collection instrument

| Part 1 – Identification data           |                     |                       |  |  |  |
|--|---------------------|-----------------------|--|--|--|
| Gender: () male () female              | Age:                |                       |  |  |  |
| Education: ( ) Full elementary school  | () Full high school | () College/University |  |  |  |
| () Others                              | Religion:           |                       |  |  |  |
| Type of relation with the patient:     |                     |                       |  |  |  |
| Length of the patient's hospital stay: |                     | _                     |  |  |  |

**Part 2** – Hospital Anxiety and Depression Scale, translated by Botega NJ, Bio MR, Zomignani MA, Garcia C Jr, Pereira WA. [Mood disorders among inpatients in ambulatory and validation of the anxiety and depression scale HAD] Rev Saude Publica. 1995; 29(5):355-63. Portuguese.

This questionnaire has the objective of identifying how you are feeling.

You should read all the phrases and check the answer that best corresponds to how you have felt in the past week.

It is not necessary to think about a question for too long. In this questionnaire, spontaneous answers are worth more than those resulting from thinking for too long. Check only one answer for each question.

| A | I feel tense or 'wound up':  |
|---|--|
| 3 | ( ) Most of the time   |
| 2 | ( ) A lot of the time  |
| 1 | ( ) From time to time, occasionally  |
| 0 | ( ) Not at all   |
| D | I still enjoy the things I used to enjoy:                                    |
| 0 | ( ) Definitely as much   |
| 1 | ( ) Not quite so much  |
| 2 | Only a little  |
| 3 | ( ) Hardly at all  |
| A | I get a sort of frightened feeling as if something awful is about to happen: |
| 3 | ( ) Very definitely and quite badly  |
| 2 | ( ) Yes, but not too badly   |
| 1 | ( ) A little, but it doesn't worry me  |
| 0 | ( ) Not at all   |

| D | I can laugh and see the funny side of things:                         |
|---|---|
| 0 | ( ) As much as I always could   |
| 1 | ( ) Not quite so much now   |
| 2 |   |
|   | ( ) Definitely not so much now  |
| 3 | ( ) Not at all  |
| A | Worrying thoughts go through my mind:                                 |
| 3 | ( ) A great deal of the time  |
| 2 | ( ) A lot of the time   |
| 1 | ( ) From time to time, but not too often                              |
| 0 | ( ) Only occasionally   |
| D | I feel cheerful:  |
| 3 | ( ) Not at all  |
| 2 | ( ) Not often   |
| 1 | ( ) Sometimes   |
| 0 | ( ) Most of the time  |
| A | I can sit at ease and feel relaxed:                                   |
| 0 | ( ) Definitely  |
| 1 | ( ) Usually   |
| 2 | ( ) Not Often   |
| 3 | ( ) Not at all  |
| D | I feel as if I am slowed down:  |
| 3 | ( ) Nearly all the time   |
| 2 | ( ) Very often  |
| 1 | ( ) Sometimes   |
| 0 | ( ) Not at all  |
| A | I get a sort of frightened feeling like 'butterflies' in the stomach: |
| 0 | ( ) Not at all  |
| 1 | ( ) Occasionally  |
| 2 | ( ) Quite Often   |
| 3 |   |
| D | ( ) Very Often  |
|   | I have lost interest in my appearance:                                |
| 3 | ( ) Definitely  |
| 2 | ( ) I don't take as much care as I should                             |
| 1 | ( ) I may not take quite as much care                                 |
| 0 | ( ) I take just as much care as ever                                  |
| A | I feel restless as I have to be on the move:                          |
| 3 | ( ) Very much indeed  |
| 2 | ( ) Quite a lot   |
| 1 | ( ) Not very much   |
| 0 | ( ) Not at all  |
| D | I look forward with enjoyment to things:                              |
| 0 | ( ) As much as I ever did   |
| 1 | ( ) Rather less than I used to  |
| 2 | ( ) Definitely less than I used to                                    |
| 3 | ( ) Hardly at all   |
| A | I get sudden feelings of panic:                                       |
| 3 | ( ) Very often indeed   |
| 2 | ( ) Quite often   |
| 1 | ( ) Not very often  |
| 0 | ( ) Not at all  |
| D | I can enjoy a good book or radio or TV program:                       |
| 0 | ( ) Often   |
| 1 | ( ) Sometimes   |
| 2 | ( ) Not often   |
| 3 | ( ) Very seldom   |