ANALYSIS OF THE ANXIETY LEVEL OF THE NURSING UNDERGRADUATE STUDENTS

ORIGINAL ARTICLE

ABSTRACT

Objective: to compare the anxiety levels of nursing undergraduate students in classroom and in the hospital environment. Method: we used a qualitative-quantitative approach; with 25 students of the 4th term of a Nursing college in Distrito Federal. We used the Hamilton Anxiety Scale (HAM-A), which classifies anxiety as mild, mild to moderate and moderate to severe. The data was presented by pictures. This study had the research project approved by the Ethic Committee of the Universidade de Brasília under approval 03-12/2011, register of CAAE 0611.0.013.000-11. Results: the Student’s t-test showed a higher level of anxiety in the classroom environment than in a hospital setting. Conclusion: the hospital environment is not always an anxiety generator agent. It is quite possible that a good performance of the practical activities within the educational institution (laboratories and classrooms) can help minimize the psychological impact of a potentially hostile environment. Descriptors: anxiety; nursing undergraduate students; clinical traineeship.

RESUMO

Objetivo: comparar os níveis de ansiedade de acadêmicos de enfermagem em sala de aula e no ambiente hospitalar. Método: estudo de abordagem qualiquantitativa, com 25 estudantes do 4º período de Enfermagem de uma faculdade no Distrito Federal. Utilizou-se a escala de avaliação de Hamilton (HAM-A), que classifica a ansiedade em leve, leve a moderada e moderada a grave. Os dados foram apresentados em figuras. Este estudo teve o projeto de pesquisa aprovado pelo Comitê de Ética da Universidade de Brasília com o parecer 03-12/2011, sob registro do CAAE 0611.0.013.000-11. Resultados: o teste t de Student mostrou maior nível de ansiedade em ambiente de sala de aula que em ambiente hospitalar. Conclusão: nem sempre o ambiente hospitalar funciona como agente gerador de ansiedade. É bem possível que uma boa condução das atividades práticas dentro da instituição de ensino (laboratorios e salas de aula) possa ajudar a minimizar o impacto psicológico de um ambiente potencialmente hostil. Descriptores: ansiedade; estudantes de enfermagem; estágio clínico.

RESUMEN

Objetivo: comparar los niveles de ansiedad de los estudiantes de enfermería en la clase y en el hospital. Método: se utilizó un enfoque cualitativo-quantitativo, la muestra consistió de veinte y cinco estudiantes en el cuarto periodo de una escuela de enfermería en el Distrito Federal. Se utilizó la Escala de Valoración de Hamilton (HAM-A), que clasifica a la ansiedad como leve, moderada y grave según lo aprobado por el CEP/UNB y de IH aparecen 03-12/2011, CAAE 0611.0.013.000-11. Resultados: prueba t de Student mostró un mayor nivel de ansiedad en el ambiente de clase que en un hospital. Conclusión: no siempre el hospital actúa como agente que provoca ansiedad. Es muy posible que una buena gestión de las actividades prácticas dentro de la institución (laboratorios y aulas) pueda ayudar a minimizar el impacto psicológico de un espacio potencialmente hostil. Descriptores: ansiedad; estudiantes de enfermería; prácticas clínicas.

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INTRODUCTION

The term anxiety derives from Greek ἀνσχέιν, which means to oppress and suffocate. It is a word that expresses subjective experience and is associated with the manifestation of body symptoms.¹ It is an essential emotional state for the human psyche. It is a frequent experience, which can be beneficial when it prepares the individuals for the action.²

The anxiety has been recognized as a professional problem of great importance for the Nursing undergraduate students, because they show it in critical areas such as the adult and pediatric ICUs, emergency room, and operation room, among others. Places that demand huge effort and responsibility, aiming to assist with quality, something which leads to a greater performance in the actions of care to the patients.³

Caring for patients demands a lot from the Nursing professionals and undergraduate students, and it can be seen both physically and emotionally. The healthcare professionals are really vulnerable to feel anxiety; they deal with the human suffering and death, which are stressful labor situations. For the undergraduate students who are in practical activities the anxiety is expressed through fear and tension many times, due to the fact that they do not feel prepared for new and challenging situations.²

Then, anxiety is considered as an unpleasant feeling of fear, characterized by some discomfort derived from danger anticipation, or unknown.⁴ It is an adaptive feeling proper for men to confront the situations which are important for life. Its manifestations are characterized by tachycardia, sudoresis, muscular tension, apprehension, alert, inquietude among others.¹

There are two ways to decrease anxiety, one of them is to cope with the situation, solving the problems and facing the obstacles, and the other is creating strategies to escape from the threats and minimize its impact.¹

The cause of anxiety is not very clear for science. However, it seems that some biological and physiological factors are implicated in its origin. There is some correlated data of dysfunctions in biological amine and functioning alterations of cerebral areas in illness such as depression and the panic disorder.⁷

The serotonin and the gamma-aminobutyric acid (GABA) are important neurotransmitters that control the response to the stress generators stimuli. When there is an alteration of these neurotransmitters, it occurs an anxiety state that is realized through cardiovascular, muscular, gastrointestinal symptoms and others.⁸

It is known that the anxiety level can vary according to the changes of environment stimuli.² Nursing undergraduate students, who are facing the practical situations, can experience increased levels of anxiety due to their new responsibilities and the littler experience.⁹

Some researchers attribute to the environmental factors a rate higher than the genetic predisposition.² Situations such as competitiveness, relationship difficulties, overconsumption, atrocities, injustices, globalization, have exposed the populations to numerous psychic aggressions, something that results in harmful consequences, mainly, for predisposed and more fragile individuals.

We can foresee that the anxiety level in Nursing undergraduate students vary as they face daily situations of classroom and hospital practice environment. So, it was expected that they presented more severe anxiety levels in the hospital setting than in classroom.

Anxiety is a normal and universal emotion with psychological and physiological components that are part of the human being experiences.⁵ It modifies the action preparing the individual for the confrontation of situations that are interpreted as threatening. The hospital environment, for who does not know its routines, can be seen as an insecurity origin, due to the risks and challenges that are inherent to its constitution. Nursing students, before the first contact with the hospital, can present more intense signs of anxiety. Then, the proposed investigation evaluated the relation between the anxiety level in class and the first contact with the hospital environment. And then it was asked: what is the anxiety level of the nursing students of the fourth term during their first experience of practical activity in hospital?

This way the realization of this research with the Nursing undergraduate students is interesting, in order to know possible variability concerning the anxiety both in the educational institution and in the hospital setting. Verifying the anxiety level in these students is highly important for the nurse educational process, because the first contact with the hospital setting itself can bring fear and impotence.

Therefore, this study aims to verify differences in the anxiety levels in the
students, in class (before the first practical activity) and in the first practical activity in a hospital environment. We also intend to verify if the anxiety level, in the studied group, shows elevated scores in the hospital setting.

**METHODOLOGY**

The performed research had a qualitative-quantitative approach which benefits the possibility of gathering identification of specific variables with a global view of the phenomenon. This sample was carried out with 25 nursing undergraduate students of a private college and in a public hospital of Brasília, after the research project approval by CEP/IH of UnB 03-12/2011, CAAE 0611.0.013.000-11.

This study is supported by the Hamilton Anxiety Scale. The variable anxiety was manipulated intra-subjects. This way, the same students who answered the test in class, were retested in the hospital setting.

For the analysis of the anxiety level in the nursing undergraduate students, it was used the anxiety scale of Hamilton which is a test of evaluation of the anxiety symptoms severity. In this test 14 items disposed in two groups are used, the first group with 7 items, related to the symptoms of anxious mood and the second one with 7 items also, related to the physical symptoms of anxiety. The total score is obtained by the sum of the values (degrees) which result varies from 0 to 56. Each item is scored in a scale of 0 to 4 points, which can vary from 0=not at all; mild=1; moderate=2; severe=3; very severe=4. For the classification of anxiety the HAM-A was divided in rating levels as it follows: <17 mild; 18-24 mild to moderate; 25-30 moderate to severe.

**RESULTS AND DISCUSSION**

The experimental draw intended to examine the teaching environment role in the anxiety modulation between nursing undergraduate students. The anxiety of the participants was measured in the following sequence: in class and the first practical activity. The same individuals were used in both moments of the experiment. The measure of interest was the anxiety level expressed by the Hamilton Anxiety Scale (HAM-A). The analysis of the data considered the average answers of the participants in both moments of the collection. The test that evaluated the differences between these averages was the Student’s t-test.

According to Picture 1, it observed that 20 students (80%), showed low anxiety level, 1 student (4%) showed moderate anxiety level and 4 students (16%) showed higher anxiety levels.

Picture 1. Anxiety levels of the nursing degree students of the fourth term, in class. Brasilia-DF.

Picture 2 shows the anxiety percentage of students in the second moment of data collection, the hospital environment.
It is verified that 22 students (88%) showed low anxiety level, 2 students (8%) showed moderate level and 1 student (4%) showed high anxiety level.

The Student’s t-test was performed in order to verify the differences between the two moments of the data collection. It was observed that the obtained value by the t-test was 1.61, this value is smaller than the proposed value for significance level, which is 5%, and in the chart it corresponds to 2.06. Concerning this, we can conclude that there were significant differences between the anxiety levels measured in the two steps of the data collection (Sum of the differences: -117; Variance of the differences: 210.27; Average of the differences: 4.68).

The obtained result was different from the one predicted by the paper hypothesis. It was expected that the anxiety level in the hospital environment were higher than in class. It was not verified. The data showed that the anxiety in class presented more severe levels than in the hospital setting, describing an inverse pattern to what was expected. In spite of the difference between the test averages, most of the students showed low anxiety in class and in the hospital environment as well.

However, we verified a change in the anxiety level during each step. In class (Nursing laboratory) 5 students showed moderate to severe anxiety levels. This result can have been obtained due to the fact that this stage of data collection had been performed after the presentation of a seminar in the college laboratory. This is a moment in which the student feels apprehensive because of the evaluation, their mates and the professor.

The preoccupation, concerning the procedure complexity they will perform in the future during their traineeship, did not reflect in the increase of the anxiety level when measured by the HAM-A. According to this result, it was considered that possibility that, in the laboratories of the researched institution, the students can feel at ease for the performance of necessary procedures to the practice. This would be reflected during the presence in the hospital institution.

Another possibility is that, as in the first practical day it is not compulsory that the student performs any type of procedure, they can feel more secure and less afraid of any problems or setbacks which could happen.

Although the anxiety level was mild, the professors must be aware of the behavior and development of each one. The students do not know the routine, the field and what is acceptable or not, during their first performance. The response to stress is a result of the interaction between the characteristics of the person and the demands of the environment, in other words, the discrepancies between the external and internal environment and the perception of the individual towards their response capacity. This response to the stressor, in the case of the hospital setting, comprise cognitive, behavioral and physiological aspects, aiming to provide a better perception of the situation and its demands, as well as a faster processing of the available information, enabling a search of solutions, selecting proper conducts and preparing the organism to act in a faster and vigorous way. In the students, the overlap of these three levels (physiological, cognitive and behavioral) is efficient up to a point, which can trigger a disorganizing effect if exceeded.

Some important changes in life, such as situations in which the undergraduate students are evaluated by their practice, can generate a stress response in the individuals.
exposed to them. Evaluating the occurrence of these events can be a way of getting to know about the frequency they trigger the response to stress. Some aspects help the students confront specific situations, such as the mates support, the experience of the professor, a reduced number of students in each group, among others.

Although the number of students who presented high anxiety level is small (16% in class and 4% in the hospital environment), the obtained value cannot be ignored. The support to these students is essential and can be decisive when it is realized that the anxiety is severe enough to damage their learning.13

It is believed that the fact that the student can reach the goals even facing aspects related to anxiety, taking into account the new content to be given and the opportunity to put into practice what was learned in class, is an important aspect to be considered.

CONCLUSION

The anxiety is present in our lives and it is important for the search of solutions to the difficulties which are daily found.14 The development of a disorder is directly related to the frequency and duration of activation responses caused by situations in which the subject evaluates as stressful for themselves.

The confrontation response, of the student, to the stressful event, selected from the cognitive, behavioral and physiological components, in case they are able to eliminate or solve the stressful situation will cause a decrease of the activated physiological cascade. An academic environment which does not disregard the emotional dimension of the student due to the technique would prevent the anxiety. If the response to stress brings frequent and lasting or intense physiological activation, it can precipitate a shortage of the resources of the student with the appearance of several psycho-physiological disorders, something which can predispose the appearance of anxiety disorders among other mental illness.

In the analyzed samples it was verified that the obtained results were different from what was predicted in the paper hypothesis, what we can presuppose that the performed techniques in the institution were well conducted by the professors, leading the students to have more confidence in the performed procedures in the hospital environment.

Despite the difference between the studied groups, this study showed that the relation of the student with the hospital environment is not always a generator of significant anxiety levels. Several factors need to be considered: the preparation of the student in the laboratory and in class, the performance of the practical activity by the professor, the type of developed activity in the hospital setting and the anticipation of facts without a negative emotional component.

It is possible, however, that the hospital environment does not always act as an anxiogenic factor. The adequate performance of the practical activities in the laboratories and in class can minimize or avoid the presence of psychological and physiological symptoms, which are characteristics of the anxiety.

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