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# The Effect of Relaxation Training on First Year Nursing Students Anxiety in Clinical Setting

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***Abstract*—**The investigating and assessing the effects of relaxation training on the levels of state anxiety concerning first year female nursing students at their initial experience in clinical setting. This research is a quasi experimental study that was carried out in nursing and midwifery faculty of Tehran university of medical sciences .The sample of research consists 60 first term female nursing students were selected through convenience and random sampling. 30 of them were the experimental group and 30 of them were in control group. The Instruments of data-collection has been a questionnaire which consists of 3 parts. The first part includes 10 questions about demographic characteristics .the second part includes 20 question about anxiety (test 'Spielberg' ). The 3rd part includes physiological indicators of anxiety (BP, P, R, body temperature). The statistical tests included *t*-test and $\lambda^2$ and fisher test, Data were analyzed by SPSS software.

***Keywords*—**Anxiety, Nursing students**,** Relaxation



## I. Introduction

NURSING students often experience immense amounts of anxiety during clinical courses, and encounter various factors of pressure. Factors such as exams, preparation of articles, and clinical experiences can generate anxiety for nursing students [1]-[2]. Relationships with colleagues and patients have also proven significant stressors for many students (Lees & Ellis 1990). Furthermore, they consider themselves as nurses within the clinical environment in terms of responsibility and learning. Some studies point to the clinical component of nursing education as being the most stressful type (Beck & Srivastava 1991, Lindop 1991) [3].

Given the negative effects of anxiety, a few of which were mentioned above, this study aims to look at the effects of a two-week training program of progressive muscle relaxation on controlling the level of evident anxiety in nursing freshmen upon their arrival [1].

## II. Review of Literature

Clinical experience has been identified by nursing students as one of the most anxiety-producing components of the nursing program.

The literature indicates that there is direct relationship between anxiety and learning. Decreased learning occurs in the presence of high anxiety (Spielberger 1966; Hamilton 1975). A number of studies have shown that low achievers experience significantly higher levels of anxiety than high achievers and this has been attributed to poor study skills and ineffective study habits (Mitchell & Piatkowska 1974, Hart & Keller 1980) [4].

There is no generic theory for anxiety since it shows itself as a complex phenomenon ranging from mild to severe and that usually harms learning. Parker's study of stressful experiences (1985) reported by nursing freshmen supports much of the above findings in relation to first year students. Parkers (1985), in studying 150 first year nursing students, founds sources of reported stress including: concerns about caring for dying patients, interpersonal conflicts, anxieties about professional competence, fear of failure, work overload and interpersonal relation with patients (Parks 1985).

Also in the clinical setting, students have reported being stressed about caring for dying patients (Parks 1985), time pressure when carrying out tasks (Lindop 1989), evaluations of clinical experience and performance. Frequent changing of wards also proves a major source of stress for students (Jack 1992) [3].

Many factors such as years of education and working while studying influence the level of assertiveness in the students. The anxiety in students had a significant relation with the father's level of education. The simultaneous existence of low assertiveness and high anxiety in nursing and midwifery students leads to the disruption of study performance [5].

In most instances nursing is not the course that applicants are interested in and many of them have no first-hand knowledge of the profession. After entering the program they discover that it is very different from their expectations. It was evident that nursing students suffer from a great deal of anxiety, which could interfere with both classroom and clinical performance. Some students suffered from severe anxiety, which affected their academic performance and resulted in low grades and high dropout rates [4].

The process of training nursing students occurs in a highly stressful environment, and clinical work is evaluated with considerable accuracy and austerity by the patient and the school, and thus puts the student under the effect of anxiety and undesirable condition [6].

The emotional distress experienced by student nurses appears to be associated with their perceived inability to alleviate patient distress. Moreover, some student nurses have reported an emotional numbness during patient disclosure or during intense clinical interaction [7].

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Generally, a nursing student is in a state of anxiety, and continuous evaluation of how prepared she is can be a determining factor. Therefore, having an experienced, rational, and calm coach would prevent the students from getting anxious [8].

The role of the school in exploring ways of adaptation, and adjustment techniques to reduce anxiety is of enormous significance.

It is necessary that students and faculty collaborate and create practical strategies designed to assist student nurses in avoiding, mitigating, or resolving psychological injury [7].

## III. Methods

Firstly, all the units under study (30 tests, 30 controls) were required to take the Spielberger anxiety test Two weeks before entering the clinical environment, and vital signs (blood pressure, pulse, breathing, temperature) were controlled. Then, the progressive muscle relaxation was presented to the test group in a 45-minute session of questions, answers, and illustrations. The same training course was repeated three times a day (once with the researcher and twice at home) for two weeks. Again, on the day of entering the clinical environment, the Spielberger anxiety test was given to all students and vital signs were controlled. The effects of relaxation were analyzed in comparison with the scores obtained from questions, acceptance or reclined theories in the two previous stages (before and after the training). Descriptive Statistics were used to analyze the data and report individual variables in forms of frequency distribution tables, average, and standard deviation. Inferential statistics such as $\lambda^2$, Fischer, and Pearson correlation coefficient were used to determine the relations between variables; SPSS was used to analyze the data.

## IV. Results

The tables indicate the positive effect of relaxation in reduction of the anxiety among students of the test group.

Two groups regarding demographic and clinical anxiety level were selected two weeks before entering the homogeneous clinical environment, and they were not of much difference. Most study units (73.3%) of test group were mildly anxious on the day of entering the clinical environment, while 56.7% of the same group was mildly anxious two weeks before entering the clinical environment (table 1). Most study units (53.3%) in the control group were moderately anxious on the entering day, while 50% of the same group was mildly anxious two weeks before entering the clinical environment (table 2). The statistical test of $\lambda^2$ illustrates a significant difference between the level of anxiety in two groups of test and control on the day of entering (p=0.02) (table 3). The statistical test illustrates a significance difference between two groups of test and control after the training (p=0.01) (table 4).

TABLE I
ABSOLUTE AND RELATIVE FREQUENCY DISTRIBUTION OF STUDY UNITS ACCORDING TO THE LEVEL OF EVIDENT ANXIETY LEVEL TWO WEEKS BEFORE ENTERING THE CLINICAL ENVIRONMENT, TEST GROUP

| Time | Level of anxiety | Number | Total | Percentage | Total |
|---|---|---|---|---|---|
| Two weeks before entering the clinical environment | Mild anxiety (20-42) | 17 | 30 | 56.7 | 100 |
| | Moderate anxiety (43-64) | 13 | | 43.3 | |
| | Severe anxiety (65-80) | 0 | | 0 | |
| The day of entering | Mild anxiety (20-42) | 22 | 30 | 73.3 | 100 |
| | Moderate anxiety (43-64) | 6 | | 20 | |
| | Severe anxiety (65-80) | 2 | | 6.7 | |

Moreover, the physiological changes due to anxiety in the trained group compared to those of the untrained ones were dissimilar: systolic blood pressure (p=0.03), pulse (p=0.22), breathing (p=0.001), and temperature (p=0.03)

TABLE II
ABSOLUTE AND RELATIVE FREQUENCY DISTRIBUTION OF STUDY UNITS ACCORDING TO THE LEVEL OF EVIDENT ANXIETY LEVEL TWO WEEKS BEFORE ENTERING THE CLINICAL ENVIRONMENT, CONTROL GROUP

| Time | Level of anxiety | Number | Total | Percentage | Total |
|---|---|---|---|---|---|
| Two weeks before entering the clinical environment | Mild anxiety (20-42) | 15 | 30 | 50 | 100 |
| | Moderate anxiety (43-64) | 14 | | 46.7 | |
| | Severe anxiety (65-80) | 1 | | 3.3 | |
| The day of entering | Mild anxiety (20-42) | 13 | 30 | 43.3 | 100 |
| | Moderate anxiety (43-64) | 16 | | 53.3 | |
| | Severe anxiety (65-80) | 1 | | 3.3 | |

TABLE III
ABSOLUTE AND RELATIVE FREQUENCY DISTRIBUTION OF STUDY UNITS ACCORDING TO THE LEVEL OF EVIDENT ANXIETY LEVEL ON THE DAY OF ENTERING THE CLINICAL ENVIRONMENT IN GROUPS OF TEST AND CONTROL

| Group of study | Level of anxiety | Number | Total | Percentage | Total |
|---|---|---|---|---|---|
| Test Group | Mild anxiety (20-42) | 15 | 30 | 50 | 100 |
| | Moderate anxiety (43-64) | 14 | | 46.7 | |
| | Severe anxiety (65-80) | 1 | | 3.3 | |
| Control Group | Mild anxiety (20-42) | 13 | 30 | 43.3 | 100 |
| | Moderate anxiety (43-64) | 16 | | 53.3 | |
| | Severe anxiety (65-80) | 1 | | 3.3 | |
| Total | Mild anxiety (20-42) | 35 | 60 | 58.6 | 100 |
| | Moderate anxiety (43-64) | 22 | | 36.4 | |
| | Severe anxiety (65-80) | 3 | | 5 | |

Results: $x_2 = 7.19 \quad df = 2 \quad p = 0.02$

TABLE IV
DISTRIBUTION OF AVERAGE AND STANDARD DEVIATION OF RESULTS FROM EVIDENT ANXIETY TESTS OF STUDY UNITS AFTER TRAINING (THE DAY OF ENTERING THE CLINICAL ENVIRONMENT) IN BOTH GROUPS OF TEST AND CONTROL

| Time | Variable under study | Group | Average | Standard Deviation |
|---|---|---|---|---|
| After training (the day of entering the clinical environment | Anxiety | Test | 37.47 | 11.06 |
| | | Control | 45.37 | 12.91 |

Results: $T = 2.53 \quad p = 0.01$

## V. DISCUSSION AND RESULTS

The findings to the present study indicate that potential evident anxiety in students before entering the clinical environment is caused by numerous reasons. Concealed anxiety is a relatively stable form of individual differences in preparation for anxiety [1]. Therefore, unknown environmental factors can play a significant role in developing the evident anxiety. Bearing in mind the statistics and figures of decreasing evident anxiety and its physiological signs in the test group after training, relaxation has left a positive effect on the entering day. Young et al (1991), state that progressive muscle relaxation reduces anxiety, and increases ability to learn. What's more, relaxation is used as a means of reducing anxiety and tension; and controls blood pressure while reducing muscle cramps [9]-[10]-[11].

## VI. SUGGESTIONS

Given the results of the present study, it is suggested that relaxation training be taught practiced as the principles of nursing in the first semester in theory and practice. Student would be able to learn and use the method in stressful conditions such as prior to entering the clinical environment, and starting the internship with more peace of mind. That could be the way to prevent the negative effects of anxiety from influencing the learning process.

Also the nursing and midwifery schools can promote progressive muscle relaxation via conferences, seminars, and new training courses of knowledge and skills of relaxation, including this very type, for instructors and students to use, and reduce anxiety in clinical environments.

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