

THERAPEUTIC TOUCH AS STRATEGY FOR STRESS REDUCTION IN NURSING STUDENTS

TOQUE TERAPÊUTICO COMO ESTRATÉGIA PARA REDUÇÃO DE ESTRESSE EM ESTUDANTES DE ENFERMAGEM

TACTO TERAPÉUTICO COMO ESTRATEGIA PARA REDUCIR EL ESTRÉS EN ESTUDIANTES DE ENFERMERÍA

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ABSTRACT

Objective: To analyze the Therapeutic Touch as a stress reduction strategy in nursing students. **Methods:** A longitudinal study of case-control type, performed with 20 nursing students. The research instrument was a stress evaluation scale applied before and after the Therapeutic Touch application. For data analysis, the Wilcoxon and Kruskal-Wallis tests were used. **Results:** The Therapeutic Touch was shown to be effective in reducing stress in the 1, 3 and 6 areas of the scale, not influenced by factors such as leisure activity, financial income, having children or not, and current college semester. **Conclusion:** The therapeutic touch was effective in reducing stress levels, assisting nursing students in its coping. To deepen the research, other studies are required, aiming to provide resources to be sought by nursing students to minimize the stress experienced.

Descriptors: Therapeutic touch; Nursing students; Psychological stress.

RESUMO

Objetivo: Analisar o toque terapêutico como estratégia para redução de estresse em estudantes de enfermagem. **Métodos:** Estudo longitudinal do tipo caso-controle realizado com 20 estudantes de enfermagem. O instrumento de pesquisa foi uma escala de avaliação de estresse antes e após a aplicação de toque terapêutico. Para análise dos dados, utilizaram-se os testes de Wilcoxon e Kruskal-Wallis. **Resultados:** O toque terapêutico mostrou-se eficaz para redução do estresse nos domínios 1, 3 e 6 da escala, não sofrendo influência de fatores como atividade de lazer, renda, ter ou não filhos, e série atual. **Conclusão:** O toque terapêutico foi eficiente na redução dos níveis de estresse, auxiliando os estudantes de enfermagem quanto ao enfrentamento do mesmo. Outros estudos são necessários para aprofundar pesquisas na área, que visem propiciar recursos a serem buscados pelos estudantes de enfermagem para minimizar o estresse vivenciado.

Descritores: Toque terapêutico; Estudantes de enfermagem; Estresse psicológico.

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RESUMEN

Objective: Analizar el Tacto Terapéutico como estrategia para reducir el estrés en estudiantes de enfermería. **Métodos:** Estudio longitudinal del tipo caso-control realizado con 20 estudiantes de enfermería. El instrumento de investigación fue una escala de evaluación de estrés antes y después de la aplicación del Tacto Terapéutico. Para el análisis de los datos, se utilizaron las pruebas de Wilcoxon y Kruskal-Wallis. **Resultados:** El Tacto Terapéutico se mostró eficaz para reducir el estrés en los dominios 1, 3 y 6 de la escala, no sufriendo influencia de factores como actividad de ocio, renta, tener o no hijos, y semestre universitario actual. **Conclusión:** El Tacto Terapéutico fue eficiente en la reducción de los niveles de estrés, auxiliando a los estudiantes de enfermería en cuanto al enfrentamiento del mismo. Otros estudios son necesarios para profundizar investigaciones en el área que apunten a propiciar recursos a ser buscados por los estudiantes de enfermería para minimizar el estrés vivido.

DESCRIPTORES: Tacto Terapéutico; Estudiantes de enfermería; Estrés Psicológico.

INTRODUCTION

Generating pressures of stress are experienced in personal, social and professional life, and this is no less different during the training period of university education.¹ Stress, as nonspecific reaction of the organism before pressures on the body system, can trigger symptoms such as anxiety, tension, anxiety, insomnia, alienation, interpersonal difficulties, self-doubts, difficulty relaxing, anger and emotional hypersensitivity.²⁻⁴

During the training process, the nursing student faces various crises and can experience different feelings. Besides being in a unique moment of his/her life, seeking to professionalize him/herself to find his/her place in the labor market, he/she is also exposed to the health/disease process of their clients, being capable of coping with suffering, terminal illnesses,

family conflicts and death.⁴

A study aimed to analyze the occurrence of scientific research on mental health of the student's undergraduate degree in nursing in Brazil, in the last 21 years, found that among the critical moments it can be highlighted: the student's initiation into academia, environment with which he/she is still unfamiliar; the beginning of the practical activities, in which students engage in complex situations of the health system and their own insecurity; and the end of the course, when the student, for the most part, is concerned with the labor market and the demands of the profession. Facing these moments, initiatives that might support them in coping with their difficulties are essential.⁵

However, even realizing that the nursing training process presents several situations that trigger stress and anxiety, it

is not verified the offer of strategies that strengthen students emotionally to this confrontation, demanding studies with this approach.⁶

It is in this context that integrative and complementary practices emerge, as exploitation opportunities for nursing students to face situations of stress.⁷

Integrative and complementary therapies are recognized by the Federal Board of Nursing (COFEn) in COFEN-389 Resolution of October 18, 2011, as specialty of Nursing Professional.⁸

Among the complementary and integrative practices, it emphasizes the Therapeutic Touch, which began with the American Nurse Dolores Krieger, in the 1970s, and has become widely used as a nursing practice.⁹

Therapeutic touch is a holistic therapy, i.e., which considers the human being as a whole composed of parts - physical, mental, spiritual – in a constant interaction, that cannot be treated separately. The technique basically consists of the laying on of hands, in order to harmonize the human energy field through the therapist centering, for further diagnosis of any changes, followed by re-patterning and harmonizing of the human energy field, as filed with the North American Nursing Diagnostics Association (NANDA).^{9,10}

Several studies that have assessed its application show great effectiveness. Among the results obtained, there were: reduction in non-malignant and chronic pain, and fatigue; modification of the parameters of vital signs such as blood pressure, cardiac and respiratory frequency, both critically ill and healthy individuals; and improvement in standards of sleep.^{7,8,11,12}

Techniques such as the therapeutic touch are inexpensive, easy to apply and can act positively with respect to physical symptoms such as the ones mentioned above, as well as in control of mood disorders, stress and/or anxiety.^{13,14} Therefore, the guiding of this research was: What is the effectiveness of the therapeutic touch as stress reduction strategy experienced by nursing students?

In this way, it aimed to analyze the therapeutic touch as stress reduction strategy in nursing students.

METHODS

Longitudinal, case-control study, carried out with 20 undergraduate nursing students at a public university in southern Brazil. At first, for the selection of the 20 students it was applied a questionnaire of characterization and the Stress Assessment scale in 120 students. It is a self-report

scale that was built and validated in Brazil, in a study of 160 nursing students of a university in São Paulo.¹⁵

The inclusion criteria for the 120 students were being an undergraduate degree nursing student, from the University of the study, be 18 or older, express interest in participating in the research, have available schedules to respond the characterization questionnaire and the Stress Assessment scale and availability to participate in therapeutic touch sessions. Being pregnant was an exclusion criterion.

The assessment of stress among nursing students presents a Likert scale of four points, composed of 30 items, grouped into six areas: performance of practical activities (D1); professional communication (D2); time management (D3); environment (D4); vocational training (D5); e theoretical activity (D6).

According to the items, the student marks with an "X" the number corresponding to the intensity of the stress the situation causes to him/her, as the following legend: zero to "I do not experience the situation"; 1 to "I don't feel stressed by the situation"; 2 to "I feel a little stressed with the situation"; and 3 to "I feel very stressed by the situation".¹⁵

To measure the result, sum the number corresponding to the stress intensity of the

items present in each domain, being low, medium, high or very high, namely: D1: zero to 9, low level; 10 to 12 medium level; 13 to 14, high level; 15 to 18, very high stress level; D2: zero to 5, low level; 6, medium level; 7 to 8, high level; 9 to 12, very high stress level; D3: zero to 10, low level; 11 to 12, medium level; 13 to 14, high level; 15, very high stress level; D4: zero to 7, low level; 8 to 10 medium level; 11, high level; 12, very high stress level; D5: zero to 9, low level; 10, medium level; 11 to 12, high level; 13 to 18, very high stress level; D6: zero to 9, low level; 10 to 11, medium level; 12 to 13 high level; 14 to 15, stress level too high.¹⁵

From the analysis of 120 instruments, 76 nursing students showed high stress level or too high in one or more areas of the Stress Assessment scale in nursing students. From these, 20 students were selected through a draw, who participated in the Control and Experimental Groups, being 10 for each group. It was used as parameter to set the sample size and shape of the selection, a study on trends of the research involving the use of therapeutic touch as a nursing strategy.¹²

The first ten students drawn were considered Experimental Group and the second group of ten students, Control. Seven sessions of therapeutic touch were

performed with the Experimental Group, with an average duration of 30 minutes each. It is noteworthy that for this practice of laying on of hands there is no fixed number of sessions, or preset time. It is recommended that the therapist only consider the standards of the human energy field of the patient for such evaluation.⁹ the absence of protocols can be considered a limiting factor as regards scientific methodology and research reproduction, but it is understandable, since every individual is unique and must be treated as such.¹⁶

Therapeutic touch sessions took place in a laboratory of nursing practices, with 50 m² area, belonging to the University in which this study was carried out. This lab provided equipment for the recognition and verification of vital signs, as well as stretchers for students to lie down comfortably to receive the therapeutic touch.

Each session consisted in the filling, by the therapist, of an adapted evaluation sheet before and after receiving the therapeutic touch, containing energy field diagnostics, vital signs (blood pressure, axillary temperature, heart and breath rate), oxygen saturation and measurement of the human energy field, with the use of a aurameter and measuring tape. It should be noted that it was not

paired groups. At the end of every session of therapeutic touch, students of the Experimental and control Groups responded again to the self-applicable scale of Stress Assessment in nursing students.

Data were collected in the period from April to November 2015. They were submitted to descriptive statistical analysis, with absolute and relative frequency, for categorical variables, and use of measures of central tendency (median), for numeric variables, with the aid of the software Statistical Package for Social Sciences (SPSS), version 22.0. The sign test with rank, with Wilcoxon signs was performed, to check the differences between the scores of the domains of the Stress Assessment scale in nursing students before and after receiving the therapeutic touch, and the Kruskal-Wallis test, for the comparison of medians for the variables with more than two categories. In all the tests, it was considered statistically significant value of $p < 0.05$.

The development of the study met the national and international standards of ethics in research involving humans, receiving assent to its development of the Committee of Ethics in Research with Humans, of the health area of the Federal University of Rio Grande, under the number 177/2014.

RESULTS

Each group was made up of ten graduate nursing students. Among them, 40% attended the eighth grade, followed by 20% who attended the sixth grade; and 90% were female. The average age was 24.9, with at least 18 and not more than 37 years.

Mostly, the students reported themselves as the white (85%). Less frequency of married individuals was observed (15%), with predominance of single ones (85%). It was found that 30% had household income of up to one minimum wage (30%), 40% lived with their parents and 10% had children. In relation to alcoholic drink consumption,

50% reported doing so; 15% were smokers; 25% stated practicing physical activity; and 70% reported having leisure activity.

The students, mostly, did not work (70%); among those who worked, 20% were already operating in health area. It was found that 60% of the students had already been thinking about quitting the undergraduate nursing program. It is important to note that the therapeutic touch sessions ranged from two to seven, being the average of 5.2, since not all students were able to attend all sessions.

In table 1, there is the median of the Stress Assessment scale in nursing students before and after receiving the therapeutic touch, both in the Experimental and Control Group.

Table 1: Stress Assessment scale in nursing students, before and after receiving the therapeutic touch (n=20)

Domain	Experimental Group (n=10)		Control Group (n=10)	
	Before	After	Before	After
1	14.00	8.00	12.50	9.00
2	7.00	5.50	6.00	6.50
3	12.50	9.50	11.50	11.50
4	3.50	3.00	7.50	6.00
5	12.00	10.50	12.00	11.50
6	12.00	8.50	9.50	9.50

Results expressed in medians.

In table 2, there is the Wilcoxon test with the differences between the scores of the domains of the Stress Assessment scale in nursing students, after receiving the

therapeutic touch. The therapeutic touch assisted in reducing the stress experienced by nursing students in the Experimental group concerning the domains 1, 3 and 6

of the Stress Assessment scale in nursing students (D1-implementation of practical

activities; D3-time management; and D6-theoretical activity).

Table 2: Differences between the scores of the domains of the Stress Assessment scale in nursing students after receiving the therapeutic touch (n=20)

Domain	Experimental Group (n=10)	Control Group (n=10)
1	Z = -2.604*; p=0.009	Z = -1.611*; p=0.107
2	Z = -1.866*; p=0.062	Z = -1.732†; p=0.083
3	Z = -2.099*; p=0.032	Z = -.514†; p=0.607
4	Z = -1.065*; p=0.287	Z = -.281*; p=0.779
5	Z = -1.554*; p=0.120	Z = -.356†; p=0.722
6	Z = -2.699*; p=0.007	Z = -.493*; p=0.622

*Based on positive ranks; †Based on negative ranks.

Table 3 refers to the association between the domains 1, 3 and 6 of the Stress Assessment scale in nursing students

and leisure activity, income, having or not children and current education level.

Table 3: Association between the domains of the Stress Assessment scale in nursing students and the leisure activities, income, having or not children and the current education level (n=20)

Domain	Variables	Experimental Group (n=10)	Control Group (n=10)
1	Leisure activity	1.72* p=0.19	0.69* p=0.79
	Income	3.82* p=0.57	6.33* p=0.17
	Children	0.07* p=0.78	-*
	Current education level	3.66* p=.30	6.34* p=0.17
3	Leisure activity	0.42* p=0.51	0.28* p=0.59
	Income	4.28* p=0.50	4.56* p=0.33
	Children	0.01* p=0.89	-*
	Current education level	2.89* p=0.40	5.84* p=0.21
6	Leisure activity	0.05* p=0.82	3.46* p=0.63
	Income	2.71* p=0.74	4.79* p=0.30
	Children	1.24* p=0.26	-*
	Current education level	2.73* p=0.43	7.71* p=0.10

*Kruskal-Wallis.

In the sample studied, the difference between the number of incoming sessions and the variables leisure activity, income and current education level have not interfered in the stress levels

of students of any of the two groups, according to the Kruskal-Wallis test. The variable having or not children did not interfere in the stress level of students in the Experimental Group. In the Control group, none of the students had children.

DISCUSSION

The therapeutic touch proved being an effective strategy for reducing stress in nursing students concerning the implementation of practical activities, time management and theoretical activity. The therapeutic touch has as a main characteristic the capacity to promote the relaxation of both the therapist and the receiver, besides the development of awareness for self-care, what is extremely positive for coping with stress.¹⁷ In an integrative review published in 2015, from ten articles that analyzed the therapeutic touch applied to the care of stress-anxiety, eight had statistically significant results.¹⁷

The practical activities constitute one of the factors responsible for the involvement of stress on students, but it was possible to realize the effectiveness of therapeutic touch concerning this subject in questions specified in field 1, that address the practical activities. The supervised internship, in particular, is pointed out as a great stress generator by students, since they leave an ideal situation described by the theory and they come across the reality of clinical practice without being apparently prepared for such experience.¹⁸⁻²⁰

Domain 3 covers issues related to time management. The requirements of academic activities often come accompanied by the family and the group of friends' distance, and may intensify feelings of loneliness, abandonment and isolation in the student.^{18,21} On the other hand, if the student is able to use effective coping strategies, he/she can realize this experience in a positive way, enabling greater autonomy and adaptability.^{6,21}

To this end, it is necessary to instrumentalize the student, and the therapeutic touch can be used as an effective strategy.

Nursing students present psychological and physiological manifestations of stress in greater proportion, when compared to other areas.⁶ Identifying the triggers of stress factors by these students is essential and, to this end, it is necessary that they are able to develop self-knowledge, reflecting on their actions and feelings.¹⁷ It is extremely important to train teachers to identify signs of stress and anxiety, as well as instrumentalize the academy to act against the stressors, easing them when possible and assisting the nursing students to meet them, because the way this student is inserted in his/her area of expertise may differ between a frustrating experience and pleasurable work.^{3,19,21}

According to several studies, the theoretical activities, in particular evaluations, have proved to be some of the most stressful activities for nursing students.¹⁹ According to the students themselves, the evaluation systems are stressful and cause heavy workload, which leads to less time to perform other activities.^{1,6} Therapeutic touch also shows itself as statistically positive with regard to the reduction of stress levels of students in the field that encompasses issues related to theoretical activities (D6), which is of great value, since stress, before the evaluation, can paralyze the student, causing him to lack of concentration, for example.

Researches involving therapeutic touch have been gaining strength, especially in the last decade. However, the absence of a protocol is considered a limiting factor by the academy, which ends up slowing the use of therapeutic touch, both as a stress coping strategy and pain, anxiety and sleep disorders.¹⁵ Researches on the imposition of hands are recent within a university context [,] although the realization of this practice is ancient.

Limitations of this study were related to the small number of participants. This happened due to lack of a physical structure that behave the care of more students concurrently to receive the

therapeutic touch and the absence of more therapist students qualified for the application. Other variables were tested to check whether they were or not interfering with the stress level of the students. However, none of these variables interfered in the stress level of the students of the Experimental Group and the Control one.

CONCLUSION AND CONTRIBUTIONS

Therapeutic touch is statistically effective in reducing stress in nursing students in three of the six areas assessed (stress related to practical activities, the time and the theoretical activities). This study showed the importance of further research in the area aimed at providing resources that nursing students can seek to minimize the stress experienced. However, limiting factors, such as the small number of subjects, make it impossible to generalize the results.

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