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# The effectiveness of Therapeutic Touch on pain, depression and sleep in patients with chronic pain: clinical trial

EFETIVIDADE DO TOQUE TERAPÊUTICO SOBRE A DOR, DEPRESSÃO E SONO EM PACIENTES COM DOR CRÔNICA: ENSAIO CLÍNICO

EFFECTIVIDAD DEL TOQUE TERAPÉUTICO EN DOLOR, DEPRESIÓN Y SUEÑO EN PACIENTES CON DOLOR CRÓNICA: ENSAYO CLÍNICO

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## ABSTRACT

This research aimed to check the effectiveness of Therapeutic Touch on decreased pain intensity, depression self-assessment scores and improved sleep quality. A clinical *before-after* trial is presented. The study was carried out at a Basic Health Unit in Fernandópolis, SP-Brazil, involving 30 elderly patients with chronic non-oncologic pain who received 8 sessions of Therapeutic Touch in accordance with the Krieger-Kunz method. The Visual Analogue Scale for pain was applied before and after each session, and Beck Depression Inventory and the Pittsburgh Sleep Quality Index before the first and after the last session. Data analysis showed a significant decrease ( $p<0.05$ ) in pain intensity, depression self-assessment scores and the sleep quality index. It is concluded that the Therapeutic Touch was effective to decrease pain intensity and depressive attitudes and symptoms, as well as to improve sleep quality.

## KEY WORDS

Therapeutic touch.  
Alternative therapies.  
Pain

## RESUMO

Este estudo teve como objetivo verificar a efetividade do Toque Terapêutico na diminuição da intensidade da dor, escores de auto-avaliação de depressão e melhora da qualidade do sono. Consiste em um ensaio clínico do tipo *antes e depois*, realizado com 30 idosos com dor crônica não-oncológica que receberam 8 sessões de Toque Terapêutico Método Krieger-Kunz na Unidade Básica de Saúde de Fernandópolis (SP), Brasil. A Escala Analógica Visual para dor foi aplicada antes e após cada sessão, o Inventário de Depressão de Beck e o Índice de Qualidade do Sono de Pittsburgh, antes da primeira e após a última. A análise dos dados demonstrou diminuição significativa ( $p<0,05$ ) na intensidade da dor, dos escores de auto-avaliação de depressão e do índice de qualidade do sono. Conclui-se que o Toque Terapêutico foi efetivo na diminuição da intensidade da dor, nas atitudes e nos sintomas depressivos e na melhora da qualidade do sono.

## DESCRIPTORES

Toque terapêutico.  
Terapias alternativas.  
Dor.

## RESUMEN

Este estudio tuvo como objetivo verificar la efectividad del Tacto Terapéutico en la disminución de la intensidad del dolor, puntajes de autoevaluación de depresión y mejora de la calidad del sueño. Consistió en un ensayo clínico del tipo *antes y después*, realizado en una Unidad Básica de Salud de Fernandópolis - SP - Brasil, con 30 ancianos con dolor crónico no oncológico que recibieron 8 sesiones de Tacto Terapéutico Método Krieger-Kunz. La Escala Analógica Visual para dolor fue aplicada antes y después de cada sesión, el Inventario de Depresión de Beck y el Índice de Calidad del Sueño de Pittsburgh antes de la primera y luego de la última. El análisis de los datos demostró una disminución significativa ( $p<0,005$ ) en la intensidad del dolor, de los puntajes de autoevaluación de depresión y del índice de calidad del sueño. Se concluye en que el Tacto Terapéutico fue efectivo en la disminución de la intensidad del dolor, actitudes y síntomas depresivos y en la mejora de la calidad del sueño.

## DESCRIPTORES

Tacto terapéutico.  
Terapias alternativas.  
Dolor.

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## INTRODUCTION

Population aging, which initially occurred in developed country and more recently in developing countries as well, has become one of the challenges for contemporary public health<sup>(1)</sup>.

One of the consequences of this change in the demographic profile is the high incidence of chronic and degenerative illnesses, many of which are accompanied by pain, and a significant part by chronic pain<sup>(2)</sup>.

Chronic pain persists beyond the time needed to heal an injury or is associated with chronic pathological processes. In elderly people, generally, chronic pain predominates, related with a degenerative disease<sup>(3)</sup>.

A Brazilian study of 451 elderly municipal workers from Londrina, PR, showed 51.4% with chronic pain complaints<sup>(2)</sup>.

People with chronic pain frequently present emotional manifestations of depression and sleep quality alterations<sup>(3)</sup>.

Pain and depression constitute a complex and two-way association: pain can generate depression due to its course marked by losses and disabilities; and referred symptoms of depression include different types of pain<sup>(4)</sup>.

A research involving 172 people aged 60 years or older who attended a Basic Health Unit in Londrina-PR demonstrated chronic pain in 62.21% of the elderly, 56.1% of whom with depression<sup>(5)</sup>.

Studies have demonstrated a positive correlation between pain intensity and anxiety and depression symptoms<sup>(6-7)</sup>. While depression frequently accompanies chronic pain conditions, anxiety accompanies acute pain conditions, or chronic pain conditions in which patients have no information about their conditions and what can happen<sup>(4)</sup>.

Sleep quality alterations in people with chronic pain have been reported in some studies. In a research of 92 cancer patients, somatic signs and symptoms were observed, among which sleep alterations, which are common in case of depressive syndrome and cancer, were much more frequent in the patient group with than without pain<sup>(7)</sup>. A study on sleep quality in elderly patients with peripheral vascular diseases demonstrates that prolonged latency to start sleeping, although not the most common condition among elderly in general, was relevant among patients with chronic pain<sup>(8)</sup>.

Sleep pattern and anxiety and depression prevalence levels were assessed in a study involving 400 people with chronic pain, with an average age of 45.6 years and standard deviation of 11.4 years. The prevalence of anxiety symptoms was 72.8%, depression 61.5% and sleep alteration 93%<sup>(9)</sup>.

Chronic pain affects people as a whole, generating limitations and biopsychosocial imbalances<sup>(4)</sup>. As an experience that involves the individual as a whole, it is understandable that pain can respond to a range of treatments and a combination of different treatment modes<sup>(3)</sup>.

One mode that has been used to relieve pain is the Therapeutic Touch. This technique is based on a holistic view of the human being, a characteristic that motivated the researchers to study its effectiveness in care delivery to elderly people with non-oncologic chronic pain.

The Therapeutic Touch is based on the conscious use of the hands to harmonize the client's energy field and can be considered a contemporary interpretation of former cure practices. In general, the Therapeutic Touch technique is divided in four phases: centralization of consciousness, assessment of the patient's energy field, rebalancing or repatterning of energy and reassessment of the patient's energy field<sup>(10)</sup>.

The centralization phase involves the directing of the therapist's attention towards his/her interior, permitting him/her to move beyond daily stimulus and reactions of physical interactions with the environment. This concentration should be free from tension and maintained during the entire Therapeutic Touch session. In daily reality, practitioners use breathing and visualization exercises, among others, in order to manage to centralize their minds<sup>(10)</sup>.

To accomplish the energetic field assessment phase, the therapist moves his/her hands at approximately five centimeters from the patient's skin, starting with both hands near the spinal column, distancing them at the same time towards the periphery of the energy field. The head-rump direction can be followed to assess both the front and back<sup>(10)</sup>.

As he/she moves through the client's energy field, the therapist can experience feelings of warmth or coldness, congestion, tingling and small shocks in his/her hands. These feelings generally indicate disequilibrium in the energetic field.

The energy rebalancing or repatterning phase is performed based on the direction, modulation and/or change in human energy patterns. As an example, directing energy at the suprarenal area is indicated for patients with fatigue or exhaustion. Visualizing colors is suggested to modulate energy. Changing patterns is needed when the therapist perceives the energy field as rough, tangled and inert, among others. This change can be achieved by unruffling the energy field. To unruffle a given area in the field, the therapist should move both hands at the same time towards the periphery of the field, repeating this movement three or four times. In the fourth phase, the therapist reassesses the client's energy field, perceiving the continuation or disappearance of the feelings present in the second phase<sup>(10)</sup>.

As an experience that involves the individual as a whole, it is understandable that pain can respond to a range of treatments and a combination of different treatment modes.

Some studies carried out until date demonstrate that the Therapeutic Touch promotes a decrease in pain.

A literature review on the effects of the Therapeutic Touch for pain reduction included studies from 1997 to 2007, published in English. Nine studies were found between 1997 and 2004, two of which were meta-analyses. Thus, the review considered five papers, three of which were randomized clinical trials, one longitudinal and one quasi-experimental study. Four of these studies demonstrated the effectiveness of the Therapeutic Touch for pain reduction, especially in cases of osteoarthritis, musculoskeletal pains and burns<sup>(11)</sup>.

The author of the abovementioned research appoints sample homogeneity and convenience as limitations in the reviewed studies. She recommends further research with probabilistic samples; inclusion of patients from different ethnic origins; replication to confirm effects; research on treatment duration and frequency, needed with a view to effectiveness in different pain types; duration of post-treatment effects and exploration of Therapeutic Touch mechanisms and action modes<sup>(11)</sup>.

A review on Healing Touch research, a therapy that is also based on hands use to balance the human energy field, analyzed studies focusing on pain, mental health and elderly patients, among others. Regarding pain, seven out of nine studies indicated decreased pain. It was concluded that, despite the limitations caused by the small sample size, the range of measurement instruments and different pain conditions, the results encourage the use of this technique in pain management<sup>(12)</sup>.

In the same review, five studies with elderly subjects were analyzed, demonstrating decreased pain; reduced agitation in dementia cases; improved appetite, sleep and socialization, among others. The studies were also limited by the small sample size though<sup>(12)</sup>.

Likewise, effectiveness research on the Healing Touch in mental health did not permit adequate conclusions, due to inadequate sample size and controls. The review authors emphasize that, although many positive results were reported, such as decreased stress, anxiety and pain, none of the findings was conclusive. Many studies lacked important information, mainly regarding internal and external validity. They defend the need for further research and replications of existing studies to test the potential effect of the Healing Touch, as they believe this technique can represent another option for nurses in safe and non-invasive care delivery<sup>(12)</sup>.

Despite study limitations, the effectiveness of the Therapeutic Touch to decrease pain has been demonstrated by some well-designed studies, although its effectiveness on depression and sleep quality has received little attention in literature.

A Brazilian study demonstrated that the application of the Therapeutic Touch in patients with non-oncologic chronic pain caused a significant decrease in pain intensity

and self-assessed depression scores, as well as an increase in the positive connotation of the psychological meaning attributed to pain. In the same study, although not part of the study goals, some subjects spontaneously reported that they were sleeping better<sup>(13)</sup>.

Considering the epidemiology of chronic pain in elderly pain and its co-existence with depression and sleep alterations, it is relevant to investigate the Therapeutic Touch as a possible intervention to improve these conditions.

## OBJECTIVE

To assess the effectiveness of the Therapeutic Touch to decrease pain intensity and self-assessed depression scores and improve sleep quality in patients with non-oncologic chronic pain.

## METHOD

A before-and-after clinical trial was carried out at the Family Health Unit Américo Possari, located in the neighborhood Paraíso of Fernandópolis, a city in the Northwest of São Paulo State.

The study sample comprised 30 people aged 60 years or older who attended the abovementioned health unit.

A random sample was selected, initially based on a survey of all elderly users at the unit. Based on home visits, elderly people with chronic illness were identified, among whom a draft was performed to determine the sample.

Sample inclusion criteria were: presence of non-oncologic pain for more than 6 (six) months; persistence of pain despite medical treatment; availability to come to the health unit twice per week during four weeks; minimum period of six hours between the last analgesic medication dose and the Therapeutic Touch session (controlled every session) and possibility to maintain the previous treatment during the entire data collection period.

After approval for the research project was obtained from the Research Ethics Committee at the University of São Paulo School of Nursing (Process No 662/2007), subjects were contacted at their homes or at the health unit. After a detailed explanation about the research goals and methods, they were asked to sign the Free and Informed Consent Term and fill out a subject characterization form.

Each subject received 8 (eight) Therapeutic Touch sessions, following the Krieger-Kunz method, during 1(one) month, twice per week, one Mondays and Wednesdays for some subjects and Tuesdays and Thursdays for others. Sessions were held individually, in rooms at the health unit, by three researchers with previous training to apply the technique. Each session took approximately 25 minutes.

To assess pain, the Visual Analogue Scale (VAS) was applied before and after each session. This one-dimensional

scale permits quantifying pain intensity. In this research, the scale took the form of a non-numbered, ten-centimeter straight horizontal line, ranging from *no pain* on the left to *worst possible pain* on the right. Subjects were instructed to mark a point on this line, corresponding to the pain intensity they were feeling at that moment. The score was obtained by measuring the distance between the *no pain* point, corresponding to zero, and the subject's mark with the help of a ruler. Thus, scale scores varied from zero to ten.

Beck's Depression Inventory (BDI) was applied for depression self-assessment before the first and after the last session. This instrument has been validated in Brazil<sup>(14)</sup>, takes the form of a self-report and permits quantitative assessment of the intensity of depressive symptoms. In its original form, used in this research, it comprises 21 categories of symptoms and attitudes, each of which consists of a graduated series of four assertions. Each assertion is scored from zero to three, indicating the symptoms' severity. The choice of the cut-off point in this inventory should vary according to the kind of sample and the researchers' objectives<sup>(15-16)</sup>. As one of the goals in this study was to verify the effect of the Therapeutic Touch on self-assessed depression scores, depressed and non-depressed subjects were not identified.

Sleep quality was measured before the first and after the last Therapeutic Touch session, through the use of the Pittsburgh Sleep Quality Index (PSQI)<sup>(17)</sup>, which has also been validated for the Brazilian culture<sup>(18)</sup>. To answer the questions, subjects were instructed to consider events within one month before the data collection date. This instrument comprises seven components, scored from zero to three, so that the maximum score is 21 points. A global score above five indicates bad sleep quality<sup>(17)</sup>.

Considering the low education level and age of the present study sample, the assertions from the Beck Depression Inventory and the questions from the PSQI were read slowly and aloud; as soon as the subject had chosen the response, one of the researchers registered it.

A test of differences between the subjects' average pain intensity scores before and after each Therapeutic Touch session was carried out, and also before the first and after the last session for self-assessed depression and sleep quality scores. In all cases, Student's paired t-test was used, with significance set at  $p < 0.05$ . A before-after design was used, so that each subject represented his/her own control.

## RESULTS

### Sample characteristics

Eighty percent of the 30 subjects who participated in this research were women and 20% men, with ages ranging from 60 to 80 years. Regarding civil status, 66.67% were married, 30% widowed and 3.33% divorced.

As for education, 23.33% were illiterate, 70% did not finish primary education and 6.67% finished primary education.

Of all subjects, 1 (3.33%) still worked in commerce, 5 ladies (16.67%) were housewives and 24 (80%) were retired.

With regard to religion, 80% declared themselves Catholic, 13.33% Evangelical and 6.67% Spiritist.

When asked about the pain location, 33.34% appointed the spinal column, 23.34% the lower limbs, 13.33% the upper limbs, 13.33% spinal column and lower limbs, 10% spinal column and upper limbs, 3.33% upper and lower limbs and 3.33% spinal column and head. The duration of pain ranged between eight months and 40 years.

### Assessment of pain intensity before and after Therapeutic Touch sessions

Considering each individual session, the scores in Table 1 show a significant drop in pain intensity in all sessions ( $p < 0.05$ ).

**Table 1** - Difference between average scores on Visual Analogue Scale for pain before and after each Therapeutic Touch session - Fernandópolis - 2009

Session	Before the Session	After the Session	p-value
	Mean $\pm$ SD	Mean $\pm$ SD	
First	1.647 $\pm$ 2.469	0.867 $\pm$ 1.793	0.032
Second	2.520 $\pm$ 3.121	1.203 $\pm$ 2.140	0.000
Third	2.370 $\pm$ 2.516	0.947 $\pm$ 1.485	0.002
Fourth	1.713 $\pm$ 2.087	0.547 $\pm$ 0.975	0.001
Fifth	1.010 $\pm$ 1.499	0.417 $\pm$ 1.047	0.001
Sixth	1.773 $\pm$ 2.227	0.367 $\pm$ 0.756	0.001
Seventh	1.020 $\pm$ 1.583	0.293 $\pm$ 0.641	0.002
Eighth	0.893 $\pm$ 1.691	0.270 $\pm$ 1.102	0.001

Obs: (N=30)

The statistical test for differences between average VAS scores before the first (1.647) and after the eighth session (0.270) also showed a significant decrease ( $p = 0.007$ ) in pain intensity.

In percentage terms, when comparing the average VAS scores before the first and after the last Therapeutic Touch session, an 83.61% reduction in pain intensity occurred.

### Self-assessed depression scores before and after the Therapeutic Touch

The analysis of average scores in each of the categories showed a significant decrease in mood, desire for self-punishment, social isolation, inhibition to work, sleep disturbance and fatigue, as shown in Table 2.

Before the first Therapeutic Touch session, sleep disturbance was the category with the highest average self-assessed depression score, followed by fatigue, loss of libido,



mood and inhibition to work. Except for loss of libido, all categories showed a significant decrease in average scores after the last session.

**Table 2** - Difference between mean Beck Depression Inventory scores per category before the first and after the last Therapeutic Touch session - Fernandópolis - 2009

Categories	Before the First Session Mean $\pm$ SD	After the Last Session Mean $\pm$ SD	p-value
1 Mood	1.833 $\pm$ 0.985	1.133 $\pm$ 0.345	0.000
2 Pessimism	1.533 $\pm$ 0.899	1.200 $\pm$ 0.484	0.057
3 Feeling of Failure	1.300 $\pm$ 0.749	1.066 $\pm$ 0.253	0.090
4 Dissatisfaction	1.100 $\pm$ 0.305	1.200 $\pm$ 0.484	0.326
5 Feeling of Guilt	1.366 $\pm$ 0.927	1.200 $\pm$ 0.664	0.455
6 Feeling of Punishment	1.433 $\pm$ 1.040	1.300 $\pm$ 0.794	0.459
7 Self-hate	1.266 $\pm$ 0.639	1.100 $\pm$ 0.305	0.134
8 Self-accusation	1.266 $\pm$ 0.691	1.166 $\pm$ 0.461	0.541
9 Desire for Self-punishment	1.166 $\pm$ 0.379	1.000 $\pm$ 0.000	0.023
10 Crying Episode	1.633 $\pm$ 0.889	1.233 $\pm$ 0.773	0.097
11 Irritability	1.533 $\pm$ 0.681	1.266 $\pm$ 0.639	0.118
12 Social Isolation	1.366 $\pm$ 0.850	1.033 $\pm$ 0.182	0.023
13 Indecision	1.566 $\pm$ 0.897	1.233 $\pm$ 0.678	0.096
14 Body Image	1.266 $\pm$ 0.639	1.233 $\pm$ 0.678	0.787
15 Inhibition to Work	1.666 $\pm$ 0.802	1.266 $\pm$ 0.449	0.008
16 Sleep Disturbance	2.033 $\pm$ 1.033	1.433 $\pm$ 0.935	0.010
17 Fatigue	1.933 $\pm$ 1.048	1.400 $\pm$ 0.621	0.013
18 Loss of Appetite	1.466 $\pm$ 0.776	1.333 $\pm$ 0.711	0.255
19 Weight Loss	1.233 $\pm$ 0.504	1.300 $\pm$ 0.702	0.489
20 Somatic Concern	1.566 $\pm$ 0.858	1.433 $\pm$ 0.626	0.380
21 Loss of Libido	1.866 $\pm$ 1.166	1.600 $\pm$ 1.101	0.174

Obs: (N=30)

The global average score on Beck's Depression Inventory was 31.43 before the first and 26.60 after the last session. The statistical test showed a significant difference between the average scores ( $p=0.006$ ).

In percentage terms, the self-assessed depression score dropped by 15.73%.

#### **Sleep quality scores before and after the Therapeutic Touch**

Considering each individual component, as observed in Table 3, a statistically significant reduction in sleep latency, sleep duration, habitual sleep efficiency, sleep disturbances and daytime dysfunction score occurred.

The global average sleep quality score before the first Therapeutic Touch session was 9.067, against 5.233 after the last session. The difference between these average scores was significant ( $p=0.000$ ).

In percentage terms, a 42.29% reduction in the global score occurred after 8 (eight) Therapeutic Touch sessions.

**Table 3** - Difference between mean Pittsburgh Sleep Quality Index scores per component before the first and after the last Therapeutic Touch session - Fernandópolis - 2009

Components	Before the First Session Mean $\pm$ SD	After the Last Session Mean $\pm$ SD	p-value
1 Subjective sleep quality	1.166 $\pm$ 0.698	0.866 $\pm$ 0.507	0.059
2 Sleep latency	1.833 $\pm$ 0.949	1.033 $\pm$ 0.927	0.000
3 Sleep duration	1.600 $\pm$ 1.220	1.000 $\pm$ 1.144	0.008
4 Habitual sleep efficiency	0.866 $\pm$ 1.136	0.333 $\pm$ 0.844	0.021
5 Sleep disturbances	1.766 $\pm$ 0.626	1.233 $\pm$ 0.504	0.000
6 Use of sleeping medication	0.933 $\pm$ 1.311	0.533 $\pm$ 1.136	0.070
7 Daytime dysfunction	1.033 $\pm$ 1.066	0.333 $\pm$ 0.479	0.002

Obs: (N=30)

## **DISCUSSION**

These research results suggest that the Therapeutic Touch significantly reduced pain intensity of chronic pain in the study sample. This finding is in line with literature findings on this theme.

A study of 95 elderly, randomly distributed among a trial, placebo and routine care group, tested the effect of the Therapeutic Touch on chronic pain, anxiety and salivary cortisol, the latter a physiological stress indicator. The trial group showed a significant decrease in pain and anxiety, while salivary cortisol showed no significant difference. It was concluded that the Therapeutic Touch effectively reduced pain and anxiety in an elderly population<sup>(19)</sup>.

A reduction in acute pain has also been demonstrated in Therapeutic Touch effectiveness research. The effect of the Therapeutic Touch on post-surgery pain was studied in a sample of 90 elderly, divided among a trial, control and placebo group. The results demonstrated that, in the trial group, a statistically significant decrease in pain intensity occurred when compared with the other groups. Heart rate frequency and pupil size, used as relaxation measures, showed no significant differences among the groups<sup>(20)</sup>.

The present study results also indicate that the Therapeutic Touch was effective to reduce self-assessed depression scores in the study sample. This finding is especially important in view of the lack of studies on the effectiveness of the Therapeutic touch in cases of depression.

A quasi-experiment was carried out, involving 30 people with moderate to severe depression, divided between a trial group and a routine treatment group; the trial group received 6 (six) Healing Touch sessions, twice per week, and showed a statistically significant reduction in self-assessed depression scores, assessed through the Beck Depression Inventory<sup>(21)</sup>.

Another quasi-experimental study with a before-after design used a sample of 30 people with non-oncologic

chronic pain, with ages ranging from 34 to 79 years, who received two weekly Therapeutic Touch sessions during four weeks. The Beck Depression Inventory was applied before the first and after the last session, showing a significant decrease in the mean global score. When considering the score for each of the 21 categories, the results revealed a statistically significant decrease regarding mood, self-hate, self-accusation, inhibition to work, sleep disturbances, fatigue, weight loss, somatic concern and loss of libido<sup>(13)</sup>.

In the present study, a significant decrease was found for mood, desire for self-punishment, social isolation, inhibition to work, sleep disorders and fatigue.

Data analysis also suggests that the Therapeutic Touch was effective to improve sleep quality.

Although no studies were found that aimed to assess the effectiveness of the Therapeutic Touch, it can be considered that decreased pain intensity contributes to improve sleep quality. In this sense, the abovementioned study is highlighted, in which sleep alterations were much more frequent in the group of cancer patients with pain than in the group without pain<sup>(7)</sup>.

Another paper already mentioned above demonstrated that prolonged latency to start sleeping was relevant in patients with chronic pain<sup>(8)</sup>. In the present study, sleep latency was the component with the highest average score before the Therapeutic Touch session, showing a significant decrease after the last session.

In view of the present study results, the complementary nature of the Therapeutic Touch should be highlighted, as its use does not intend to replace other treatment forms.

Although the term heal is used in Therapeutic Touch publications, the researchers intended to go beyond the literal translation of this term, associating it with quality of life, internal changes and transcendence of living condi-

tions<sup>(10)</sup>. Hence, Therapeutic Touch practitioners do not intend to promote cure in the usual sense attributed in the medical area; they are interested in helping clients to reach a state of wellbeing.

As a nursing care strategy, Therapeutic Touch is a practice guaranteed by the Federal Nursing Council, according to resolution COFEN-197/1997, which establishes and recognizes complementary therapies as a specialty and/or qualification area for Nursing professionals<sup>(22)</sup>.

Some study limitations should be highlighted, including the fact that a before-after clinical design was used, instead of a randomized, controlled clinical trial, which would get a higher evidence level. This study design does not permit any generalization of the obtained results either.

Despite the limitations, the researchers believe the study conclusions are favorable to Therapeutic Touch in care delivery to elderly people with non-oncologic chronic pain.

## CONCLUSION

The Therapeutic Touch was effective to decrease the intensity of pain and depression symptoms, as well as to improve sleep quality in the study sample.

The results suggest that, as a complementary and non-invasive treatment mode, the Therapeutic Touch can benefit elderly people with chronic pain, depressive symptoms and attitudes and bad sleep quality. Nevertheless, further research is needed to surpass the limitations found in most publications on the theme and produce knowledge on the effectiveness of the Therapeutic Touch to improve sleep quality and depression.

We believe that the Therapeutic Touch responds to the demand for holistic care, based on a comprehensive view of the human being, commonly reported in nursing literature.

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