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[Intervention Review]

Therapeutic touch for anxiety disorders

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ABSTRACT

Background

Anxiety disorders are a common occurrence in today's society. There is interest from the community in the use of complementary therapies for anxiety disorders. This review examined the currently available evidence supporting the use of therapeutic touch in treating anxiety disorders.

Objectives

To examine the efficacy and adverse effects of therapeutic touch for anxiety disorders.

Search methods

We searched the Cochrane Collaboration Depression, Anxiety and Neurosis Controlled Trials Registers (CCDANCTR-Studies and CCDANCTR-References) (search date 13/01/06), the Controlled Trials website and Dissertation Abstracts International. Searches of reference lists of retrieved papers were also carried out and experts in the field were contacted.

Selection criteria

Inclusion criteria included all published and unpublished randomised and quasi-randomised controlled trials comparing therapeutic touch with sham (mimic) TT, pharmacological therapy, psychological treatment, other treatment or no treatment /waiting list. The participants included adults with an anxiety disorder defined by the Diagnostic and Statistical Manual (DSM-IV), the International Classification of Diseases (ICD-10), validated diagnostic instruments, or other validated clinician or self-report instruments.

Data collection and analysis

Two review authors independently applied inclusion criteria. Further information was sought from trialists where papers contained insufficient information to make a decision about eligibility.

Main results

No randomised or quasi-randomised controlled trials of therapeutic touch for anxiety disorders were identified.

Authors' conclusions

Given the high prevalence of anxiety disorders and the current paucity of evidence on therapeutic touch in this population, there is a need for well conducted randomised controlled trials to examine the effectiveness of therapeutic touch for anxiety disorders.

PLAIN LANGUAGE SUMMARY

Therapeutic touch for anxiety disorders

Anxiety disorders are a common occurrence in the general population and have considerable impact on quality of life. This review aimed to assess the effectiveness of therapeutic touch on anxiety disorders. However no randomised controlled trials investigating the effects of therapeutic touch for anxiety disorders were identified, and highlights the need for high quality randomised controlled trials on this topic.

BACKGROUND

Description of the condition

Anxiety disorders are classified by the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV, [APA 1994](#)) as acute stress disorder, generalised anxiety disorder, post-traumatic stress disorder, obsessive-compulsive disorder, specific phobias, social anxiety disorder and panic disorder. Each of these disorders is characterised by uncontrollable and excessive worries, which may cause poor concentration and physical symptoms. Anxiety disorders are a common occurrence in modern society, with 12-month prevalence rates estimated at 17% and with a lifetime prevalence of almost 25% ([Kessler 1994](#)). As chronic disorders, they have considerable impact on quality of life and have far reaching direct and indirect economic consequences ([Greenberg 1999](#)). Variability in the prevalence of specific anxiety disorders has been found between different countries and cultures ([Weissman 1997](#)). Furthermore, gender has been shown to impact on the prevalence of anxiety disorders, with women being more likely than men to develop them ([Bijl 1998](#); [Carter 2001](#); [Wittchen 2002](#)).

Description of the intervention

Psychological and pharmacological treatments are most commonly used in the treatment of anxiety disorders. Pharmacological treatments include benzodiazepines, azapirones or antidepressants, of which benzodiazepines are the most commonly used ([Shader 1993](#)). However, pharmacological therapy is often associated with adverse side-effects ([Lydiard 1997](#)), with attitudes towards antidepressants consistently shown to be negative ([Paykel 1998](#)). There are a range of psychological therapies which have been shown to be effective and are commonly used to treat anxiety disorders ([Borkovec 1993](#)), including cognitive behaviour therapy and supportive psychotherapy and counselling. Nevertheless, psychological therapies are often impracticable due to the time and resource commitment required. Therefore, an effective and safe alternative intervention would be a welcome addition to the current repertoire.

Therapeutic touch (TT) was first developed in the 1970s by Dolores Krieger, then a nursing professor at New York University and Dora Kunz, a lay healer. Anxiety reduction, sometimes described as relaxation, is frequently cited as an effect of TT ([Sayre-Adams 2002](#); [Olson 1997](#)). Some research studies have reported that TT can reduce anxiety in the elderly ([Lin 1998](#)) and in burn patients ([Turner 1998](#)). Other studies have found no significant differences in the reduction of anxiety when TT is compared to mimic TT and routine treatment ([Hale 1986](#)).

How the intervention might work

The theoretical basis of contemporary TT is associated with the Science of Unitary Human Beings theory ([Rogers 1970](#)). Rogers views human beings as dynamic energy fields, and the world in which human beings live as an energy system, and suggests that there is a continual interaction within energy fields and with the environment. Therapeutic touch is defined as the detecting and balancing of energy. Imbalances and blockages in the energy field lead to illness and ill health. Good health is experienced when the flow of energy between the environment and the body is balanced ([Krieger 1997](#)). Since this energy field extends beyond the skin, physical touch is not required in order to practice TT.

The treatment involves two phases: assessment and balancing. Practitioners initially centre themselves by becoming relaxed and

focused on the care about to be given, whilst the patient is encouraged to sit or lie comfortably. The practitioner moves their hands around the patient's body, at a distance of two to five inches, encountering and assessing the energy field by feeling for changes in temperature, pressure, rhythm or a tingling sensation. The balancing phase involves the practitioner redirecting and rebalancing energy through the use of hand movements. This phase aims to bring the two energy fields into a harmonic resonance. The practitioner then 'smoothes' out the patient's energy field by running their hands from head to toe. The treatment is typically concluded after 20 to 25 minutes or when the energy field is balanced ([Hagemaster 2000](#)). The administration of multiple TT treatments over a period of time appears to demonstrate a cumulative effect ([Peck 1998](#); [Turner 1998](#)).

Why is it important to do this review

Since the introduction of TT in 1974, when first taught by Dolores Krieger to a group of Masters degree students, it has gained widespread support and is now reported to be taught in over 70 countries. Nevertheless, controversy still surrounds its effectiveness. Most of the research to date has focused on the effectiveness of TT in reducing anxiety, relieving pain and promoting healing ([Krieger 1993](#)). Whilst some studies support the claim that TT is effective ([Heidt 1981](#); [Kramer 1990](#)), others have failed to do this ([Olson 1995](#)). Rosa has reported evidence that discredits the claims of TT and suggests that it should no longer be used by professionals ([Rosa 1998](#)). Challenges to Rosa's conclusions suggest that inappropriate design and analysis led to inaccurate conclusions ([Cox 2003](#); [Tall 2003](#)). However, a Cochrane review of TT for healing acute wound healing found no evidence that it promotes healing ([O'Mathuna 2003](#)).

To date there has been no systematic review to investigate the strength of evidence for therapeutic touch in anxiety disorders. This review aimed to provide a systematic summary of all currently available evidence on the effectiveness and harms of TT for anxiety disorders.

OBJECTIVES

To investigate the effectiveness and harms of therapeutic touch ([Krieger 1997](#)) compared with one or a combination of the following:

- (1) Sham (mimic) TT
- (2) Pharmacological therapy
- (3) Psychological treatment
- (4) Other treatment
- (5) No treatment or waiting list.

METHODS

Criteria for considering studies for this review

Types of studies

All randomised controlled trials and quasi-randomised trials (eg randomisation using days of the week).

Types of participants

Adults (as defined by trialists) with anxiety disorders, diagnosed by the Diagnostic and Statistical Manual (DSM-IV) ([APA 1994](#)), the International Classification of Disease (ICD-10) ([WHO 1992](#)), other

validated diagnostic instruments, or other self-rated or clinician-rated validated instruments that assess the level of anxiety disorder symptoms, irrespective of gender, race or nationality.

Studies in which anxiety was a secondary symptom of a different disorder (for example depression or other psychiatric diagnoses) were excluded.

Types of interventions

Therapeutic touch in this review was defined as the detecting and balancing of energy (Krieger 1997). Studies were included if:

- (1) The intervention was described as therapeutic touch.
- (2) Was underpinned by Rogers theory (The Science of Unitary Human Beings).
- (3) Was supported by appropriate references.

Therapies which were described as therapeutic touch (eg Reiki, massage therapy) but did not meet the above criteria (2) and (3) were excluded.

Comparison conditions were one or a combination of:

- (1) Sham (mimic) TT, in which an individual mimics the gestures used in the actual TT treatment whilst concentrating on another activity, for example counting. There is no intention on the part of the individual to facilitate the process of healing.
- (2) Pharmacological treatment (eg anxiolytics or antidepressants).
- (3) Psychological treatment (eg cognitive behavioural therapy, supportive psychotherapy or counselling).
- (4) Other treatment (eg massage).
- (5) No treatment or waiting list.

Types of outcome measures

Trials were included if they used at least one of the following outcomes:

Primary outcomes

- (1) Reduction in anxiety symptoms, measured by self-rating scales such as the trait subscale of the State Trait Anxiety Inventory (Spielberger 1983), Penn State Worry Questionnaire (Meyer 1990), the anxiety subscale of the Hospital Anxiety and Depression Scale (HADS) (Zigmond 1983), the Beck Anxiety Inventory (BAI) (Beck 1988) or by clinician-rated scales, such as the Hamilton Rating Scale (Hamilton 1959).
- (2) Subjective assessments which measure a dichotomous outcome (improvement versus no improvement) were included. The authors do however recognise the possible bias within these measures and if a difference was found in this outcome, greater reliance was placed on the validated scales.

Symptom levels could be presented as continuous (mean and standard deviation) or dichotomous outcomes (remission/recovery versus non-remission/non-recovery).

Secondary outcomes

- (1) Acceptability of therapeutic touch as a treatment (assessed by questioning of participants, satisfaction measures or drop-outs).
- (2) The number of people reporting adverse effects
- (3) Change in use of medication
- (4) Use of other support systems.

Search methods for identification of studies

See: Depression, Anxiety and Neurosis Group search strategy.

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(1) Electronic searches

We searched the Cochrane Collaboration Depression, Anxiety and Neurosis Controlled Trials Registers (CCDANCTR-Studies and CCDANCTR-References) (search date 13/01/06)

CCDANCTR-Studies

Diagnosis = Anxiety or Anxious or Agoraphobia or "Phobic Disorder*" or "Panic Disorder" or "Obsessive-Compulsive Disorder" or "Post-Traumatic Stress Disorders"

and

Free-Text = touch

CCDANCTR-References

Keyword = Anxiety or Anxious or Agoraphobia or "Phobic Disorder*" or "Panic Disorder" or "Obsessive-Compulsive Disorder" or "Post-Traumatic Stress Disorders"

and

Free-Text = touch

The Controlled Trials website was searched (www.controlled-trials.com).

The following search terms were used:

Therapeutic Touch or Therapeutic Touch and Anxiety

Full text e-Journals

The Journal of Holistic Nursing

Terms used "Title=therapeutic touch"

1991-2006

(2) Reference lists

The reference lists of identified studies were inspected

(3) Personal communication

Personal communication with experts in the field took place. Professional organisations contacted included the British Association of Therapeutic Touch, the Nurse Healers Professional Association (USA), Sacred Space Foundation (UK) and Therapeutic Touch Network (Canada).

Data collection and analysis

Study selection

Abstracts of all publications obtained by the search strategy were screened by two review authors for their relevance and design according to the selection criteria. For abstracts where the authors found any indication of a clinical trial, the full article was obtained and assessed as to its relevance to this review. For articles written in a language other than English, help was sought from the Cochrane Collaboration to translate and extract the data.

Methods for future updates

The review authors did not locate any studies which met the inclusion criteria for this review, but in future updates the following methods are planned.

Quality assessment

Two independent review authors will assess the methodological quality of the selected trials. In order to ensure that variation is not caused by systematic errors in the design of a study, the methodological quality of the selected trials will be assessed by two independent reviewers (JR and FB), using the criteria described in the Cochrane Handbook. The criteria are based on the evidence of a strong relationship between the potential for bias in the results

and allocation concealment (Schulz 1995) and are defined below (Higgins 2005):

- A. Adequate
- B. Unclear
- C. Inadequate
- D. Allocation concealment not used.

Trials which meet A or B will be included.

Data extraction

Following an inclusion assessment, the methodology of the trial will be assessed by two review authors independently (JR & FB). Data will be extracted on individuals, methods, interventions, outcomes and results. This data will be recorded on hard copy datasheets, then entered into RevMan 4.2 (RevMan 2004). Missing data and clarification on aspects of study design/data will be sought from the respective authors. When a disagreement cannot be resolved through discussion, an arbitrator will be utilised (CCDAN editor).

Data analysis

Data types

Post-treatment outcomes will be assessed using dichotomous data on remission of anxiety symptoms, and continuous data of anxiety symptoms, using standardised measures.

Dichotomous data

If dichotomous outcomes are presented, the cut-off points, designated by the authors as representing 'clinical improvement' will be identified and used to calculate a pooled relative risk (RR) and 95% confidence intervals (CI). If the author's definitions of these cut-off points are quite different, only those studies that have use similar cut-off points (eg 20% reduction in scores) will be combined into a pooled estimate. Where possible the number needed to treat (NNT) with 95% confidence intervals will be calculated. For each comparison a summary statistic of all those responding to treatment will be calculated as a percentage of the total number of participants.

Continuous data

For those completing trials, analysis of continuous data, based on the random effects model, will be conducted. If normally distributed, continuous data, measured in different ways across studies but conceptually the same, will be pooled using the standardised weighted mean difference (SMD). Where both endpoint and change data are available for the same outcome, the endpoint will be presented. Significance will be set at $P < 0.05$.

To ensure that the continuous measures data are normally distributed and that parametric tests can be used appropriately, the following standards will be applied to all data prior to inclusion:

- (1) Standard deviations and means are obtained from the article or by contacting the author(s).
- (2) For data with finite limits, such as the end point scale data, the standard deviation (SD), when multiplied by two should be less than the mean. If this is not the case, then it would be unlikely that the mean is an appropriate measure of central tendency (Altman 1996).

Data that are not normally distributed will be presented separately in an 'Other data types' table.

Fixed-effect model and random-effects model

If no evidence of heterogeneity is found, a fixed-effect model will be used for both dichotomous and continuous data. A random-effects model provides a more conservative estimate of effect and will be used if statistical heterogeneity is found.

Testing for heterogeneity

The following two formal tests of heterogeneity will be used:

(1) The chi-squared test measures whether differences in effect estimates between studies may have occurred due to chance (a p-value of 0.1 will be set, as the chi-squared test lacks power where there are only a few studies for inclusion).

(2) The I-squared test measures the percentage of difference in effect estimates between studies that is due to heterogeneity rather than chance. A value greater than 50% is considered substantial heterogeneity.

Sensitivity analyses

Sensitivity analyses will be performed to address the influence of diagnosis or cut-off score on an anxiety scale as the diagnostic inclusion criterion, study quality (moderate/high), selection of scales (self/observer rated measures), use of intention-to-treat analysis, post randomisation exclusions and loss to follow up.

Subgroup analyses

Subgroup analyses will investigate whether:

- (1) Trials which utilise different anxiety disorders differ in their results.
- (2) Trials which used different environmental settings differ in their results.
- (3) Trials which differ in the total number of TT sessions administered differ in their results.

Missing data

Intention-to-treat analysis of dichotomous outcome data will be carried out, it will be assumed that participants who dropped out had negative outcomes. For continuous outcomes end point data will be used (including only participants with a final assessment) or last observation carried forward (LOCF) if provided by trialists.

Tables and figures

Data relating to the training and experience of TT practitioners will be presented in a table.

Publication bias

Data from all selected trials will be entered into a funnel plot to investigate publication bias.

RESULTS

Description of studies

Results of the search

A search of CCDANCTR-Studies and CCDANCTR-References retrieved 11 references, representing for a total of 11 studies. Based on the information provided in abstracts, full articles were obtained all 11 studies and screened for eligibility by JR and FB.

Included studies

Following scrutiny of full articles that reported on the 11 studies, none were deemed to meet all eligibility criteria for the review.

Excluded studies

Of 11 potential studies excluded from the review, one study was excluded on the basis of non-randomisation of participants into groups (Olson 1992). None of the 11 studies recruited populations with an anxiety disorder diagnosis, with eight studies measuring state anxiety rather than trait anxiety (Gagne 1994; Hale 1986; Lin 1998; Olson 1995; Parkes 1986; Quinn 1984; Quinn 1989; Turner 1998) as a response to hospitalisation and pain. In the study by Larden 2004, patients with co-morbid psychiatric conditions were recruited. All studies employed therapeutic touch in accordance with the criteria set out under Types of intervention, with the exception of the study by McElligott 2003, in which touch therapy was used.

Of the 11 studies excluded from the review, seven studied a population of hospitalised adults (Gagne 1994; Hale 1986; Larden 2004; Parkes 1986; Quinn 1984; Quinn 1989; Turner 1998), whilst the remaining four studied a population of nursing staff (McElligott 2003), adults who had experienced Hurricane Hugo (Olson 1992), healthy professional/student care givers (Olson 1995) and elderly individuals who attended community facilities (Lin 1998).

Ongoing studies

Currently there are no ongoing randomised controlled trials examining therapeutic touch for anxiety disorders.

Risk of bias in included studies

No studies meeting all inclusion criteria for the review were located.

Effects of interventions

No studies meeting all inclusion criteria for the review were located.

DISCUSSION

Summary of findings

This review showed that, to date, no randomised or quasi-randomised controlled trials investigating the effects of therapeutic touch (TT) on anxiety levels in anxiety disorders have been carried

out. A comprehensive search of electronic databases, reference lists of relevant journal articles and personal communication with experts in the field was conducted, and it seems unlikely, therefore, that we have simply 'missed' relevant studies.

Since its introduction by Dolores Krieger in 1974, TT has gained widespread support in over 70 countries. Nevertheless, whilst there appears to be a small body of evidence examining the effectiveness of therapeutic touch in the treatment of state anxiety, in response to hospitalisation, medical procedures and pain, this systematic review highlights the lack of studies investigating the effects of therapeutic touch in reducing trait anxiety symptoms in patients with anxiety disorders. We hope that studies of therapeutic touch for anxiety disorders will become available for inclusion in future updates of this review.

AUTHORS' CONCLUSIONS

Implications for practice

Due to the lack of studies for inclusion in this review, it is not possible to draw any conclusions in terms of implications for practice.

Implications for research

Given the high prevalence of anxiety disorders, together with their considerable personal and societal costs, the identification of effective interventions is clearly required. Complementary therapies are popular as an alternative to pharmacological and psychological therapies in treating anxiety disorders. This review highlights the need for randomised controlled trials to evaluate the effectiveness of therapeutic touch in reducing anxiety symptoms in people diagnosed with anxiety disorders. Future trials need to be rigorous in design and delivery, with subsequent reporting to include high quality descriptions of all aspects of methodology to enable appraisal and interpretation of results.

ACKNOWLEDGEMENTS

I would like to acknowledge the assistance of CCDAN editorial base. I would also like to thank Phil Wiffen, UK Cochrane Centre, for his advice and methodological expertise.

REFERENCES

References to studies excluded from this review

Gagne 1994 {published data only}

* Gagne D, Toye RC. The effects of therapeutic touch and relaxation in reducing anxiety. *Archives of Psychiatric Nursing* 1994;**VIII**(3):184-9.

Hale 1986 {published data only}

* Hale EH. A study of the relationship between therapeutic touch and the anxiety of hospitalized adults. Doctoral Dissertation. Texas Women's University, Houston 1986.

Larden 2004 {published data only}

* Larden CN, Palmer ML, Janssen P. Efficacy of therapeutic touch in treating pregnant inpatients who have a chemical dependency. *Journal of Holistic Nursing* 2004;**22**(4):320-32.

Lin 1998 {published data only}

* Lin YS, Taylor G. Effects of therapeutic touch in reducing pain and anxiety in an elderly population. *Integrative Medicine* 1998;**1**(4):155-62.

McElligott 2003 {published data only}

* McElligott D, Holz MB, Carollo L, Somerville S, Baggett M, Kuzniewski S, Qiuhu S. A pilot feasibility study of the effects of touch therapy on nurses. *Journal of the New York State Nurses Association* 2003;**Spring/Summer**:16-24.

Olson 1992 {published data only}

* Olson M, Sneed N, Bonadonna R, Ratliff J, Dias J. Therapeutic touch and post-Hurricane Hugo stress. *Journal of Holistic Nursing* 1992;**10**(2):120-36.

Olson 1995 {published data only}

Olson M, Sneed N. Anxiety and therapeutic touch. *Issues in Mental Health Nursing* 1995;**16**(2):97-108.

Parkes 1986 {published data only}

* Parkes BS. Therapeutic touch as an intervention to reduce anxiety in elderly hospitalized patients. Doctoral Dissertation. University of Texas, Austin 1986.

Quinn 1984 {published data only}

* Quinn JF. Therapeutic touch as energy exchange: testing the theory. *Advance in Nursing Science* 1984;**6**(2):42-9.

Quinn 1989 {published and unpublished data}

* Quinn JF. Therapeutic touch as energy exchange: replication and extension. *Nursing Science Quarterly* 1989;**2**(2):79-87.

Turner 1998 {published data only}

Turner JG, Clark AJ, Gauthier DK, Williams M. The effect of therapeutic touch on pain and anxiety in burns patients. *Journal of Advanced Nursing* 1998;**28**(1):10-20.

Additional references

Altman 1996

Altman DG, Bland JM. Detecting skewness from summary information. *BMJ* 1996;**313**(7066):1200.

APA 1994

American Psychiatric Association. Diagnostic and statistical manual of mental disorders. 4th Edition. Washington.DC.: American psychiatric Association, 1994.

Beck 1988

Beck AT, Epstein N, Brown G, Steer RA. An inventory for measuring clinical anxiety: Psychometric properties. *Journal of Consulting and Clinical Psychology* 1988;**56**:893-7.

Bijl 1998

Bijl RV, Ravelli A, Van Zessen G. Prevalence of psychiatric disorder in the general population: results of the netherlands Mental health Survey and Incidence study (NEMESIS). *Social Psychiatry and Psychiatric Epidemiology* 1998;**33**(12):587-95.

Borkovec 1993

Borkovec TD, Costello E. Efficacy of applied relaxation therapy and cognitive behavioural therapy in the treatment of generalized anxiety disorder. *Journal Consulting and Clinical Psychology* 1993;**61**:611-9.

Carter 2001

Carter RM, Wittchen HU, Pfister H, Kessler RC. One-year prevalence of subthreshold and threshold DSM-IV generalized anxiety disorder in a nationally representative sample. *Depression and Anxiety* 2001;**13**:78-88.

Cox 2003

Cox T. A nurse-statistician reanalyses data from the Rosa Therapeutic Touch study. *Alternative Therapies in Health and Medicine* 2003;**9**(1):58-66.

Greenberg 1999

Greenberg PE, Sisitisky T, Kessler RC, Finkelstein SN. The economic burden of anxiety disorders in the 1990's. *Journal of Clinical Psychiatry* 1999;**60**:427-35.

Hagemaster 2000

Hagemaster J. Use of Therapeutic Touch in treatment of drug addictions. *Holistic Nursing Practice* 2000;**14**(3):14-20.

Hale 1986

Hale EH. A study of the relationship between Therapeutic Touch and the anxiety levels of hospitalized adults. Doctoral Dissertation, Texas Women's University, Houston 1986.

Hamilton 1959

Hamilton M. The assessment of anxiety states by rating. *British Journal of Medical Psychology* 1959;**32**:50-5.

Heidt 1981

Heidt P. The effects of therapeutic Touch on anxiety level of hospitalized patients. *Nursing Research* 1981;**30**:32-7.

Higgins 2005

Higgins JP, Green S. *Cochrane Handbook for Systematic Reviews of Interventions*. 3. Chichester: John Wiley & Sons, Ltd., 2005.

Kessler 1994

Kessler RC, McGonigle KA, Zhao S, Nelson CB, Hughes M, Eshleman S, et al. Lifetime and 12 month prevalence of DSM-III-R psychiatric disorders in the United States. *Archives of General Psychiatry* 1994;**51**(1):8-19.

Kramer 1990

Kramer NA. Comparison of Therapeutic Touch and causal touch in stress reduction in hospitalized children. *Pediatric Nursing* 1990;**16**:483-5.

Krieger 1993

Krieger D. *Accepting your power to Heal: The personal Practice of Therapeutic Touch*. Santa Fe, NM: Bear and Company, 1993.

Krieger 1997

Krieger D. *Therapeutic Touch Inner Workbook: Ventures in Transpersonal Healing*. Santa Fe, NM: Bear and company, 1997.

Lin 1998

Lin Y, Taylor AG. Effects of Therapeutic Touch in reducing pain and anxiety in the elderly population. *Integrative Medicine* 1998;**1**(4):155-62.

Lydiard 1997

Lydiard RB, Ballenger JC, Rickels K. A double-blind evaluation of the safety and efficacy of abecarnil, alprazolam and placebo in outpatients with generalized anxiety disorder. *Journal of Clinical Psychiatry* 1997;**58**:11-8.

Meyer 1990

Meyer TJ, Miller ML, Metzger RL, Borkovec TD. Development and validation of the Penn State Worry Questionnaire. *Behaviour Research and Therapy* 1990;**28**:487-95.

O'Mathuna 2003

O'Mathuna DP, Ashford RL. Therapeutic Touch for Healing Acute Wounds. *Cochrane Database of Systematic Reviews* 2003, Issue 4.

Olson 1995

Olson M, Sneed N. Anxiety and Therapeutic Touch. *Issues in Mental Health Nursing* 1995;**16**(2):97-108.

Olson 1997

Olson M, Sneed N, LaVia M, Virella G, Bonadonna R, Michel Y. Stress-induced immunosuppression and Therapeutic touch. *Alternative therapies* 1997;**3**(2):68-74.

Paykel 1998

Paykel ES, Hart D, Priest RG. Changes in public attitudes to depression during the Defeat Depression Campaign. *British Journal of Psychiatry* 1998;**173**:519-22.

Peck 1998

Peck SD. The efficacy of Therapeutic Touch for improving functional ability in elders with degenerative arthritis. *Nursing Science Quarterly* 1998;**11**(3):123-32.

Peters 1999

Peters RM. The effectiveness of Therapeutic Touch: A meta-analytic review. *Nursing Science Quarterly* 1999;**12**(1):52-61.

RevMan 2004 [Computer program]

The Cochrane Collaboration. Review Manager (RevMan). Version 4.2 for Windows. Oxford, England: The Cochrane Collaboration, 2004.

Rogers 1970

Rogers MA. *An introduction to the theoretical basis of nursing*. Philadelphia, PA: FA Davis, 1970.

Rosa 1998

Rosa L, Roas E, Sarnar L, Barrett S. An even closer look at Therapeutic Touch. *JAMA* 1998;**280**:1905-8.

Sayre-Adams 2002

Sayre-Adams J. Therapeutic Touch. In: Rankin-Box D editor(s). *The Nurses Handbook of Complementary Therapies*. 2nd Edition. London: Bailliere Tindall, 2002:267-71.

Schulz 1995

Schulz KF, Chalmers I, Hayes RJ, Altman D. Empirical evidence of bias. Dimensions of methodological quality associated with estimates of treatment effects in controlled trials. *JAMA* 1995;**273**(5):408-12.

Shader 1993

Shader RI, Greenblatt DJ. Use of benzodiazepines in anxiety disorders. *New England Journal of Medicine* 1993;**328**:1398-405.

Spielberger 1983

Spielberger CD, Goruch RL, Lushene R, Vagg PR, Jacobs GA. *Manual for the State-Trait Anxiety inventory*. Palo Alto, CA: Consulting Psychologists Press, 1983.

Tall 2003

Tall FD. A close look at "A close look at Therapeutic Touch". *Nursing Outlook* 2003;**51**(3):126-9.

Turner 1998

Turner JG, Clark AJ, Gauthier DK, Williams M. The effect of Therapeutic Touch on pain and anxiety in burn patients. *Journal of Advanced Nursing* 1998;**28**(1):10-20.

Weissman 1997

Weissman MM, Bland RC. The cross-national epidemiology of panic disorder. *Archives of General Psychiatry* 1997;**136**(8):1085-6.

WHO 1992

World health Organization. The ICD 10 classification of mental and behavioural disorders : Clinical description and diagnostic guidelines. Geneva: World Health Organization, 1992.

Wittchen 2002

Wittchen HU. Generalized anxiety disorder: Prevalence, burden and cost to society. *Depression and Anxiety* 2002;**16**(4):162-71.

Zigmond 1983

Zigmond AS, Snaith RP. The Hospital Anxiety and Depression Scale. *Acta Psychiatrica Scandinavica* 1983;**67**:361-70.

* Indicates the major publication for the study

CHARACTERISTICS OF STUDIES
Characteristics of excluded studies [ordered by study ID]

Study	Reason for exclusion
Gagne 1994	Outcome measured - state anxiety
Hale 1986	Outcome measured - state anxiety
Larden 2004	co-morbid psychiatric condition
Lin 1998	Outcome measured - state anxiety
McElligott 2003	Alternative therapeutic touch intervention investigated
Olson 1992	Not a randomised controlled trial
Olson 1995	Outcome measured - state anxiety
Parkes 1986	Outcome measured - state anxiety
Quinn 1984	Outcome measured -state anxiety
Quinn 1989	Outcome measured - state anxiety
Turner 1998	Outcome measured - state anxiety

WHAT'S NEW

Date	Event	Description
5 November 2008	Amended	Converted to new review format.

HISTORY

Protocol first published: Issue 4, 2006

Review first published: Issue 3, 2007

Date	Event	Description
23 May 2007	New citation required and conclusions have changed	Substantive amendment

CONTRIBUTIONS OF AUTHORS

JR designed and wrote the review.

FB provided expertise on the intervention.

JR and FB were involved in selecting studies, extracting data and quality rating studies whilst JR interpreted results and drew conclusions.

HD supervised JR throughout the process of conducting the review.

DECLARATIONS OF INTEREST

None known

SOURCES OF SUPPORT

Internal sources

- The University of Ulster, N.Ireland, UK.

External sources

- The Research and Development Office for N.Ireland, UK.

INDEX TERMS

Medical Subject Headings (MeSH)

*Therapeutic Touch; Anxiety Disorders [*therapy]

MeSH check words

Humans