**BACKGROUND**

**Behavioural and Psychological symptoms of dementia:**
- In 2010, there were more than 36 million individuals worldwide living with dementia.
- An estimated 90% of individuals with dementia experience behavioural symptoms (the ways patients respond to their personal, social, or physical environment) over the course of their illness (e.g., actions, words and gestures).
- Behavioural symptoms may be harmful to patient, and can be physically and emotionally tolling on family and other caregivers.
- Untreated symptoms lead to disease progression, functional decline, repeated falls, longer hospitalization, misuse of medication, and decline in quality of life.

**METHODS**

- To evaluate the current use of Therapeutic Touch (TT) in managing behavioural and psychological symptoms in patients with dementia, we searched PubMed “Therapeutic Touch”. We limited our inclusion to reviews studies published in the last 10 years (January 2005 to January 2015). We excluded articles in languages other than English and studies for which no outcomes were reported.

**RESULTS**

- Manual manipulation/restlessness and vocalization were the specific behaviours that showed a statistically significant improvement with TT (ANOVA) (F = 3.331, P = .033) and the Kruskal-Wallis test (chi2 = 6.661, P = .036). It may be that TT studies show improvement in agitation and restlessness since they are among the common symptoms associated with dementia. Lack of power can make it difficult to ascertain the value of TT for other less common behavioural and psychological symptoms of dementia. Understanding the specific behaviours that are improved with TT will be important in bringing TT into clinical practice.
- The double-blind RCT showed no significant differences in cortisol levels between the groups. However, there was a statistically significant difference in the morning cortisol variability among the groups (P<0.0001). Elevated cortisol levels was observed in dementia. TT was relaxing the patient and reducing their cortisol levels which may slow down disease progression. Further research measuring cortisol levels is necessary to elucidate these results.
- TT practitioners commented on improved therapeutic relationships and ability to maintain a form of communication that may not otherwise be possible in patients with dementia.
- In addition to TT, other forms of touch have been studied as alternative therapies in managing behavioural responses including massage, hand stroking, and holding hands. Studies that further examine TT and other touch modalities are necessary to separate the benefits of TT vs other touch modalities.

**STUDIES REVIEWED**

<table>
<thead>
<tr>
<th>Author (Year)</th>
<th>Study Design</th>
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<th>Outcomes (instruments)</th>
<th>Authors’ Conclusions</th>
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<tr>
<td>Gregory and VenDaw 2005</td>
<td>Exploratory study with pre-test/post-test assessment</td>
<td>Elderly residents (n=121; 24 with dementia)</td>
<td>Changes in physiology, pain level, and behaviour</td>
<td>TT is an alternative therapy that was described by Dolores Krieger, PhD, RN and Dora Kunz in the 1970s, but is based on ancient healing practices. In the centering phase, the healer achieves inner calmness and intends to be of service to the patient. This phase can be achieved by quiet meditation or by taking deep breaths to relax the body. During the assessment phase, the healer places her/his hands two to four inches over the patient’s body to gauge the energy field of the patient. These movements are performed with the palms facing towards the patient, and gradually move from the head of the patient to the feet of the patient. While preforming these movements, the healer needs to be aware of sensory cues such as warmth, coolness, static, and tingling. During the treatment phase, the healer uses rhythmical and symmetrical movements of the hands to rebalance any disturbed flow of energy. These movements are performed with the palms facing towards the patient or by taking deep breaths to relax the body. These movements are performed with the palms facing towards the patient or by taking deep breaths to relax the body. TT may be beneficial for common behaviours of agitation such as wandering, restlessness, and vocalizations.</td>
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<tr>
<td>Woods, Craven, and Whitman 2005</td>
<td>Randomized, double-blind, three-group experimental study</td>
<td>Elderly residents in (age 67-93) with behavioural symptoms of dementia</td>
<td>Agitated Behaviour Response Scale</td>
<td>Reduced manual manipulation/restlessness and vocalization with TT (ANOVA) (F = 3.331, P = .033) and the Kruskal-Wallis test (chi2 = 6.661, P = .036).</td>
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<tr>
<td>Mananik, Johnston, and Dearadh 2009</td>
<td>Multiple time series, blinded, experimental design</td>
<td>Residents in long-term care with Alzheimer’s disease (n=51)</td>
<td>Cohen-Mansfield Agitation Inventory</td>
<td>Reduced nonaggressive behaviours.</td>
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<tr>
<td>Woods, Beck, and Sinha 2009</td>
<td>Double-blind experimental interrupted time series</td>
<td>Elderly residents in (n=65)</td>
<td>Agitated Behaviour Rating Scale, salivary and urinary cortisol</td>
<td>Decreased restlessness with TT, greater variability of morning cortisol levels (p&lt;0.0001).</td>
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</table>

**CONCLUSIONS**

- Despite limited evidence, TT may be explored as an adjunctive therapy for controlling behavioural symptoms in individuals with dementia since it is associated with the absence of negative sequelae.
- TT may be beneficial for common behaviours of agitation such as wandering, restlessness, and vocalizations.
- Future studies should include categorizing individuals by dementia sub-type and severity, having larger sample sizes, and better methodological consistency in recording behavioural symptoms.

**REFERENCES**