



TITLE: Neuro-Linguistic Programming for the Treatment of Adults with Post-Traumatic Stress Disorder, General Anxiety Disorder, or Depression: A Review of Clinical Effectiveness and Guidelines

DATE: 3 November 2014

CONTEXT AND POLICY ISSUES

Post-traumatic stress disorder (PTSD), general anxiety disorder (GAD), and major depression disorder (MDD) are common debilitating disorders with a lifetime prevalence rate of approximately 12%, 2.6%, and 8% of Canadians, respectively.¹⁻³ In addition to pharmacologic treatment, different treatment modalities such as psychotherapy, electroconvulsive therapy, transcranial magnetic stimulation, vagus nerve stimulation, deep brain stimulation, and neuro-linguistic programming (NLP), have been suggested for these disorders.^{4,5}

NLP is a therapeutic technique used to detect and re-program unconscious patterns of thoughts and behavior in order to alter psychological responses. The creators of NLP have claimed that there is a connection between the neurological processes (neuro), language (linguistic) and behavioral patterns learned through experience (programming), and as such, it can be used in business, education, and medicine for conditions such as phobias, anxiety and depression.⁶⁻¹⁰ NLP is a multi-dimensional process usually comprised of steps such as building rapport between physician and patient, information gathering and desired health outcome definition, and use of techniques and tools such as sets of questions to facilitate a change in thinking and behavior of patients.¹¹ Therapy sessions can take place weekly with the total number of sessions depending on individual needs.

This Rapid Response report aims to review the clinical evidence of NLP for PTSD, GAD and depression. Evidence-based guidelines on the use of NLP for these disorders will also be examined.

RESEARCH QUESTIONS

1. What is the clinical effectiveness of neuro-linguistic programming (NLP) for the treatment of adults with PTSD, generalized anxiety disorder (GAD), or depression?

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2. What are the guidelines associated with the use of NLP for the treatment of adults with PTSD, GAD, or depression?

KEY FINDINGS

No clinical evidence on NLP for the treatment of adults with PTSD, GAD, or depression was identified. A SIGN (Scottish Intercollegiate Guidelines Network) guideline reported that no evidence specific to depression and meeting guideline inclusion criteria was identified on the use of NLP.

METHODS

Literature Search Strategy

A limited literature search was conducted on key resources including PubMed, The Cochrane Library (2014, Issue 9), University of York Centre for Reviews and Dissemination (CRD) databases, OVID PsycINFO, Canadian and major international health technology agencies, as well as a focused Internet search. No filters were applied to limit the retrieval by study type. Where possible, retrieval was limited to the human population. The search was also limited to English language documents published before September 30, 2014.

Selection Criteria and Methods

One reviewer screened citations and selected studies. In the first level of screening, titles and abstracts were reviewed for relevance. Full texts of any relevant titles or abstracts were retrieved, and assessed for inclusion. The final article selection was based on the inclusion criteria presented in Table 1.

Table 1: Selection Criteria	
Population	Adults with PTSD, GAD, or depression
Intervention	NLP
Comparator	No comparator Standard therapy
Outcomes	Clinical effectiveness and benefit Guidelines
Study Designs	Health technology assessments (HTAs), systematic reviews (SRs), meta-analyses (MAs), randomized controlled trials (RCTs), non RCTs, and guidelines

Exclusion Criteria

Articles were excluded if they did not meet the selection criteria in Table 1, if they were duplicate publications of the same study, or if they were referenced in a selected systematic review.

Critical Appraisal of Individual Studies

The quality of the guideline was assessed using the AGREE checklist.¹² Numeric scores were not calculated. Instead, the strengths and limitations of the studies are summarized and presented.

SUMMARY OF EVIDENCE

Quantity of Research Available

The literature search yielded 399 citations. After screening of abstracts from the literature search and from other sources, 7 potentially relevant studies were selected for full-text review. One evidence-based guideline was included in this review.

The PRISMA flowchart in Appendix 1 details the process of the study selection.

Summary of Study Characteristics

A SIGN clinical guideline published in 2010 developed recommendations based on evidence of non-pharmaceutical management of depression in adults such as psychological therapies including NLP, self-help, life style modification, herbal and nutritional supplements, complementary and alternative therapies.¹³ The guideline carried out an explicit literature search strategy from 1998 to 2008 with specific criteria on patient group (adult patients with only mild to moderate depression given the nature of treatment approaches, with formal diagnosis by ICD (International Classification of Disease) 9 or 10, DSM (Diagnostic Statistical Manual) III or IV, no comorbidities) and outcomes.

Summary of Critical Appraisal

The SIGN guideline “Non-pharmaceutical management of depression in adults” is a rigorous guideline, with clear scope and purpose, based on a comprehensive systematic literature review, formulating recommendations which are specific, unambiguous and that can be generalized to adults with depression. The guideline was developed by multidisciplinary groups of practicing clinicians. Potential cost implications of applying the recommendation were not described.

Details of the strengths and limitations of the included studies are summarized in Appendix 2.

Summary of Findings

Main findings of included studies are summarized in detail in Appendix 3.

1. What is the clinical effectiveness of NLP for the treatment of adults with PTSD, GAD, or depression?

The literature search did not find clinical evidence on NLP for the treatment of adults with PTSD, GAD, or depression

2. What are the guidelines associated with the use of NLP for the treatment of adults with PTSD, GAD, or depression?

Despite strong recommendations on the use of psychosocial therapies such as behavioural activation, cognitive behavioural therapy, interpersonal therapy, the guideline reported that no evidence on the use of NLP specific to depression and meeting guideline inclusion criteria was identified.

Limitations

No clinical evidence on NLP for the treatment of adults with PTSD, GAD, or depression and no guidelines on the use of NLP on patients with PTSD or GAD were identified. One guideline on non-pharmacological therapies for depression did not identify any evidence on the use of NLP.

CONCLUSIONS AND IMPLICATIONS FOR DECISION OR POLICY MAKING

There was no clinical evidence identified on NLP for the treatment of adults with PTSD, GAD, or depression. No guidelines on the use of NLP on patients with PTSD or GAD were found. One SIGN guideline on non-pharmacologic treatments for depression reported that no evidence specific to depression and meeting guideline inclusion criteria was identified for NLP.

Even though NLP has been suggested for a wide variety of psychological conditions, there are limitations in clinical evidence validating its assumptions. Reviews and dissertations on NLP have agreed that there is little evidence that NLP interventions improve health-related outcomes in patients with speech anxiety, social anxiety, panic disorder, phobia, or PTSD.¹⁴⁻¹⁹

In summary, given the lack of available evidence, NLP validity in the treatment of PTSD, GAD or depression is difficult to ascertain.

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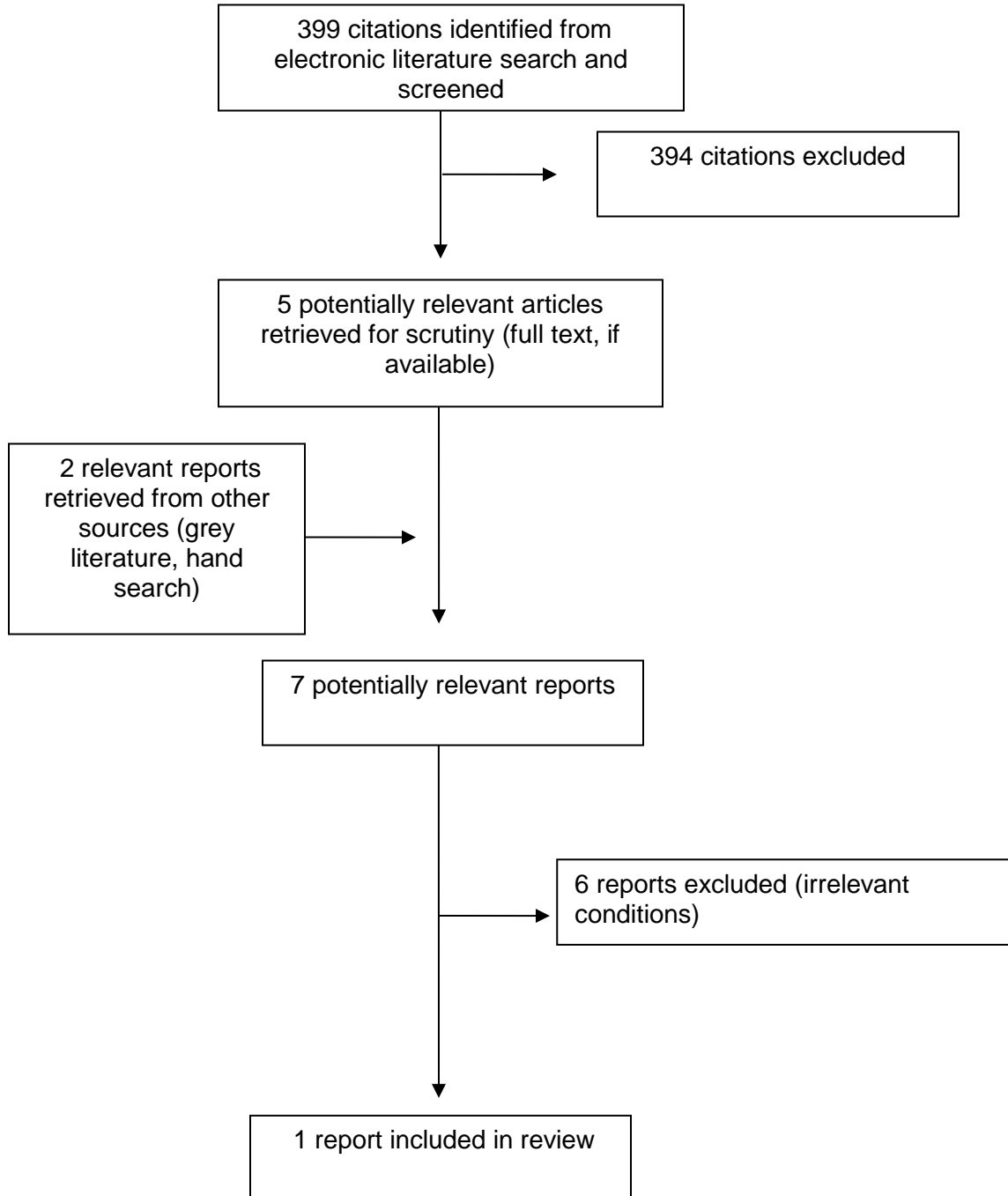
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Appendix 1: Selection of Included Studies



Appendix 2: Summary of Critical Appraisal of Included Study

Table A2: Summary of Critical Appraisal of Included Study		
First Author, Publication Year	Strengths	Limitations
Critical appraisal of included guideline (AGREE ¹²)		
SIGN (Scottish Intercollegiate Guidelines Network), ¹³ 2010	<ul style="list-style-type: none"> • <i>scope and purpose of the guidelines are clear</i> • <i>method for searching for and selecting the evidence is clear</i> • <i>methods used for formulating the recommendations are clear</i> • <i>patients' views and preferences were sought</i> • <i>target users of the guideline are clearly defined</i> • <i>guideline was piloted among target users</i> • <i>recommendations are specific and unambiguous</i> • <i>health benefits, side effects and risks were stated in the recommendations</i> • <i>level of evidence graded</i> • <i>procedure for updating the guidelines were clear</i> 	<ul style="list-style-type: none"> • <i>potential cost implications of applying the recommendation not included</i>

Appendix 3: Main Study Findings and Authors' Conclusions

Table A3: Main Study Findings and Authors' Conclusions		
First Author, Publication Year	Main Study Findings	Authors' Conclusions
Research question 1 (clinical effectiveness of NLP for the treatment of adults with PTSD, GAD, or depression)		
The literature search did not find clinical evidence on NLP for the treatment of adults with PTSD, GAD, or depression		
Research question 2 (guidelines associated with the use of NLP for the treatment of adults with PTSD, GAD, or depression)		
The literature search did not identify guidelines on NLP for the treatment of PTSD and GAD. The guideline below is on NLP for the treatment of depression		
SIGN (Scottish Intercollegiate Guidelines Network), ¹³ 2010	<i>"No evidence specific to depression and meeting the guideline inclusion criteria was identified on the use of art therapy, cognitive behavioural analysis system of psychotherapy (CBASP) cognitive analytic therapy, eye movement desensitisation and reprocessing or neurolinguistic programming" (p 8)</i>	