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Department of Health and Aged Care

Natural Therapies Review 2024

Review of the Australian Government Rebate on Natural Therapies for Private Health Insurance

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Contents

Contents.....	iii
Acknowledgements	v
Preface.....	1
Summary.....	1
Background	2
Context	2
Role of National Health and Medical Research Council (NHMRC).....	3
Scope, governance, process and limitations of the Review	4
Scope	4
Governance	4
Process.....	5
Limitations	7
Summary of main results from evidence evaluations.....	9
Alexander Technique	9
Aromatherapy	10
Bowen Therapy.....	12
Buteyko method.....	13
Feldenkrais	15
Homeopathy	16
Iridology	18
Kinesiology	19
Naturopathy (Reviews A and B).....	20
Review A - Whole system, multi-modal or single modal interventions.....	20
Review B - selected nutritional supplements	22
Pilates.....	24
Reflexology	26
Rolfing	27
Shiatsu	28
Tai Chi	29
Western Herbal Medicine.....	31

Yoga	34
Implications for future research	36
Glossary	37
Acronyms and abbreviations	41
Attachments	43
Attachment A – Natural Therapies Review Expert Advisory Panel membership	1
Attachment B – Natural Therapies Review Expert Advisory Panel Terms of Reference	1
Attachment C – Natural Therapies Review process and governance arrangements ...	1
Attachment D – Research protocols for each therapy on PROSPERO	3
Appendices	4
Appendix A – 2019-2024 Review of the Australian Government Rebate on Private Health Insurance for Natural Therapies: NHMRC Process Report	4
Appendix B – Alexander Technique evidence evaluation	4
Appendix C – Aromatherapy evidence evaluation	4
Appendix D – Bowen Therapy evidence evaluation	4
Appendix E – Buteyko evidence evaluation	4
Appendix F – Feldenkrais evidence evaluation	4
Appendix G – Homeopathy evidence evaluation	4
Appendix H – Iridology evidence evaluation	4
Appendix I – Kinesiology evidence evaluation	4
Appendix J – Naturopathy Review A evidence evaluation	4
Appendix K – Naturopathy Review B evidence evaluation	4
Appendix L – Pilates evidence evaluation	4
Appendix M – Reflexology evidence evaluation	4
Appendix N – Rolfing evidence evaluation	4
Appendix O – Shiatsu evidence evaluation	4
Appendix P – Tai Chi evidence evaluation	4
Appendix Q – Western Herbal Medicine evidence evaluation	4
Appendix R – Yoga evidence evaluation	4

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Natural Therapies Review Expert Advisory Panel (NTREAP)

The Department thanks the Advisory Panel members for their time, cooperation, engagement and technical contributions to this important work and overall the professionalism and transparency that they have shown throughout the review process. See Attachments A and B for details.

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Natural therapies sector stakeholders

The Department thanks all the natural therapies sector stakeholders who contributed to the development and implementation of the Review, including the membership and Terms of Reference for the Advisory Panel and assisting in identifying relevant evidence. Their contributions and commitment to the process made the Review possible.

Secretariat

We also acknowledge the work by the Review secretariat in the preparation of this report and administration of the Review.

¹ <https://www.nhmrc.gov.au/about-us/leadership-and-governance/committees/natural-therapies-working-committee>

Preface

The Natural Therapies Review 2024 - Review of the Australian Government Rebate on Natural Therapies for Private Health Insurance (the Review) was tasked with assessing additional available evidence for certain excluded natural therapies (see list in the Glossary and Attachment C) and providing advice to Government on whether the therapies should be eligible for subsidy through the private health insurance rebate.

Summary

This Review assessed the evidence for certain conditions and groups of people prioritised as most often treated by practitioners of the excluded natural therapies and where patients sought the therapies for treatment, in Australia.

The Review has found some moderate certainty evidence of clinical effectiveness for some of the therapies in treating some conditions. However, the amount and quality of evidence varies across the therapies examined and across the conditions those therapies are used to treat.

While some therapies have been the subject of a large number of scientific studies, others have very few studies. Similarly the quality of those studies varies substantially in a variety of ways. The outcomes of this Review will therefore be useful to the natural therapies sector for identifying areas for further research.

The Review does not cover all the reasons that people practise, prescribe or use the therapies and it is not intended to inform individual choices about practising or using the therapies.

Background

Context

Since 1 April 2019, sixteen natural therapies have been excluded from the definition of private health insurance general treatment and are not eligible for the Private Health Insurance Rebate (Rebate)². This decision was taken following the 2015 Review of the Government Rebate on Natural Therapies for Private Health Insurance³ which found there was insufficient evidence to draw definite conclusions regarding the clinical effectiveness of the therapies.

On 7 April 2019, the then Minister for Health the Hon Greg Hunt MP, announced an update of the 2015 review of natural therapies⁴. This Natural Therapies Review (the Review) was announced as being led by the then Commonwealth Chief Medical Officer (CMO), Professor Brendan Murphy AC, supported by an advisory panel of experts, the Natural Therapies Review Expert Advisory Panel (NTREAP) – see Attachments A and B for details. The Review was also to utilise the expertise of the National Health and Medical Research Council (NHMRC). Since Professor Murphy became Secretary of the then Department of Health in 2020 Professor Michael Kidd AO has led the Review.

The Review was to assess additional available evidence for the excluded natural therapies, undertake public consultation and provide advice to Government on whether the natural therapies should be reincluded as eligible for subsidy through the Rebate.

² Major reforms to make private health insurance simpler and more affordable (13 October 2017) – <https://www.health.gov.au/ministers/the-hon-greg-hunt-mp/media/major-reforms-to-make-private-health-insurance-simpler-and-more-affordable?language=en>

³ The 2015 Review of the Australian Government Rebate on Private Health Insurance for Natural Therapies (16 November 2015) – <https://webarchive.nla.gov.au/awa/20191107151136/https://www1.health.gov.au/internet/main/publishing.nsf/Content/phi-natural-therapies>

⁴ Review of natural therapies for private health insurance (7 April 2019) – <https://www.health.gov.au/ministers/the-hon-greg-hunt-mp/media/review-of-natural-therapies-for-private-health-insurance>

Role of National Health and Medical Research Council (NHMRC)

The Department engaged the NHMRC to support the work of the Review. The NHMRC was initially tasked with examining any additional evidence of the clinical effectiveness of the excluded natural therapies published since, or not included in, the 2015 review. However, the scope of this work was subsequently expanded substantially to a completely new review (see 'Scope' section).

NHMRC, via independent sub-contractors, conducted evidence evaluations of the available evidence on each of the 16 excluded natural therapies (17 evaluations in total with naturopathy in two parts, A and B), and methodological reviews of these evaluations. Contractors for the evidence evaluations adhered to the methodology specified in the research protocols, as approved by the NHMRC's Natural Therapies Working Committee (NTWC), except where noted in the evaluations (see Appendix G of each evaluation), including use of the GRADE approach for assessing certainty of a body of evidence (see GRADE description in Glossary).

The evidence examined in the evaluations included evidence provided by the Department from submissions sought from stakeholders and members of the NTREAP.

The NHMRC provided the Department with individual reports for each evaluation of the 16 excluded natural therapies (provided as appendices to this report) with broadly consistent headings/structure based on consistent application of the evidence evaluation methodology approved by the NTWC.

The NHMRC provided a final consolidated process report to the Department on 23 January 2025. That report was intended as a guide to assist in understanding the process for development of the evidence evaluations for each therapy.

Scope, governance, process and limitations of the Review

In response to feedback from stakeholders and NTREAP members, the Review was designed for robustness and transparency. This included changes to the scope, governance, process, and limitations of the Review. An infographic showing the details of the process and governance arrangements for the Review is provided at Attachment C.

Scope

The scope of the Review was substantially expanded:

- from an update to the previous 2015 review to a new review of the available evidence with no limitations on publications date;
- to include consideration of studies in languages other than English; and
- from the individual evidence evaluations being overviews of existing systematic reviews to systematic reviews of primary research studies (for most therapies).

The aim of this expansion was to make the Review more inclusive of evidence and more equitable across the therapies examined.

Consistent with the previous review, the Review excluded assessment of safety, quality, and cost effectiveness. This was due to the continuing general lack of availability of this information in studies of clinical effectiveness of the therapies.

Governance

The Department made changes to the governance arrangements for the Review.

The Department established NTREAP with membership based on expertise in research/evaluation of scientific evidence of clinical effectiveness and/or experience in practice in the relevant natural therapies. In the 2015 review the Department's Natural Therapies Review Advisory Committee (NTRAC) membership was a mix of:

- representatives from health insurers, natural therapy peak bodies and consumers; and
- medical, pharmacy and physiotherapy expert members.

This change aimed to ensure the evidence sought was relevant to the context of Australian practice and consumer expectations of the therapies. It also aimed to improve the readability of the evaluations for both practitioners and consumers.

Stakeholder engagement by the Department was commenced early and maintained throughout the course of the Review through:

- public consultation on the NTREAP Terms of Reference and membership;
- two public calls for evidence; and
- stakeholder meetings following each meeting of NTREAP, and as needed, to provide updates on progress of the Review.

This aimed to ensure ongoing engagement and appropriate input from interested stakeholders to support completion of the Review.

The NHMRC established the NTWC to provide oversight of the development and application of the evaluation methodologies (i.e. protocols and evidence evaluation reports) to ensure the evidence sought was appropriately assessed for eligibility and correctly interpreted in the evaluations.

The broader expertise of the NTWC in the conduct and analysis of scientific research enabled the NTREAP to provide more specific expertise on the practise and usage of the individual therapies.

Process

Each evaluation in the Natural Therapies Review was based on best-practice methodology for the evaluation type (either a systematic review or overview; see Glossary) as set out in the registered research protocol (see 'Registration of protocols' below).

Two evaluations were conducted as overviews: Naturopathy Review B and Western Herbal Medicine. This was due to the large number of eligible studies for those evaluations (see more detail below). The remaining evaluations were conducted as systematic reviews.

Evidence was found using a planned literature search of databases, with no limit on publication date, and from stakeholder submissions (see below). For some evaluations the reference lists of other evaluations were also searched. Each evaluation had a set of eligibility criteria devised and approved by the NTWC at the protocol stage. These eligibility criteria relate to things like the study type (e.g. checking the citation is research and not an opinion piece) and intervention (i.e. checking the study is of the named therapy). Citations were screened initially based on the title and abstract. If the studies appeared to meet the criteria, the full text was screened. The number of studies found at each stage of this process was recorded.

The Review was not intended to be an exhaustive evaluation. Rather it was intended to focus on studies relevant to the therapies, as provided in Australia. Changes were made to clearly focus the Review on providing output useful for the Government consideration of eligibility for private health insurance benefits (see 'Targeting of studies' section). NTREAP feedback was also sought on the research protocols to ensure these perspectives informed development of the evidence evaluations. More detailed information is provided on processes for the evidence evaluations in the NHMRC process report at Appendix A and the individual evidence evaluations at appendices B through R.

Effectiveness not comparative effectiveness

The question asked by Government was whether each therapy was effective, not whether one therapy was better than another therapy (comparative effectiveness). So each evaluation focused on the available evidence compared to inactive comparators (e.g. placebo, sham, waitlist - see Glossary). This was also where the most evidence was available. Studies that compared the therapy under review to another active intervention (e.g. another therapy) were noted in an appendix, except in the evaluations with not much evidence available or in specific cases as noted in the evaluation. For most therapies the studies of active comparators did not all test the same active comparator (e.g. one might compare Pilates to tai chi and the next to yoga), so it was inconsistent with the protocol to combine them.

Risk of bias assessment

Studies which met the eligibility criteria were assessed for risk of bias which considered things like whether people were randomly allocated to groups (to remove group differences), whether they knew that they were receiving the therapy (as this might affect the outcomes), whether people had dropped out of the study and whether the researchers had included all the outcomes they measured or only the ones that showed a positive or significant effect. If there was more than one study with the same population, intervention, comparator and outcome the results were combined statistically with a meta-analysis.

Certainty of evidence (GRADE)

For all evidence presented in the evaluations, the GRADE method was used to assess how certain the reviewers could be that the results are correct. GRADE considered the risk of bias in the included studies, inconsistency (whether results from different studies suggest the same conclusion or not), indirectness (whether the study results can be applied to the evaluation), imprecision of the estimate (how much uncertainty there is with studies and how different the results are), and whether there appears to be publication bias. Publication bias is when studies are published based on their results, meaning that studies which did not find an effect, or only found a small effect might be missing from the analysis.

Stakeholder engagement

The Department sought stakeholder contributions to the Review through two public calls for submissions of citations of scientific evidence. The previous review also sought public submissions however they were not limited to scientific research. This change aimed to support the evidence reviewers being able to consider all submissions as part of the evidence evaluations. In addition, stakeholder meetings were held following each NTREAP meeting, and as required, to update stakeholders on progress of the Review.

Targeting of studies

To keep the number of eligible studies relevant and manageable, the evaluations were targeted to studies of conditions treated by practitioners and the outcomes sought by consumers, in Australia. To support this focus the NTWC introduced a process of prioritisation of populations/conditions and outcomes, where needed for therapies with a larger evidence base.

In determining the priority conditions for inclusion in the analysis and synthesis of the evaluations, the NTWC were guided by relevant patient or practitioner reported Australian survey data (where available) and/or similar survey data from other countries, and expert advice from NTREAP. Prioritisation was conducted after the initial searching and screening processes, but before data extraction. To ensure the evaluations were most relevant to the Australian population, prioritisation of conditions and/or outcomes occurred without knowledge of potential studies to ensure unbiased prioritisation.

Prioritised outcomes were sometimes referred to as 'key health outcomes' and when stratified by clinical significance were termed 'important' or 'critical' outcomes.

Registration of protocols

The independent evidence reviewers were required to register the research protocol for each evidence evaluation on the independent website PROSPERO (see Glossary), an international prospective register of systematic reviews. This helped make the evaluations more robust by enabling comparison of the completed evaluations with what was planned in the protocol, reducing the potential for reporting bias and enhancing transparency and accountability.

Web links for all the research protocols used to conduct the evidence evaluations as published on the independent website PROSPERO are provided at Attachment D.

Limitations

Limitations specific to each therapy evaluation are detailed within their respective main reports. As noted under the 'Scope' section, assessment of cost effectiveness, safety and studies of healthy populations was not included in the Review. As noted under the 'Targeting of studies' section, to facilitate completion, populations and conditions were prioritised to those relevant to the Australian context. Other limitations are noted below.

Evidence search dates

The Review evidence evaluation reports are broad, complex and seek to answer a health policy question for the Australian Government. For each evaluation, searches have been conducted from database inception, which means in most instances more than 10 years of publications are included in the analysis.

These evaluations were conducted over a five-year period and were finalised on a rolling basis. Given the large workload of the Review to analyse the evidence base of 16 therapies, some therapies considered to have a larger evidence base were examined first, while those with a smaller evidence base were examined toward the end of the Review. Evidence search dates ranged from June 2020 (for Pilates) to February 2024 (Kinesiology). Some stakeholders raised concerns that reviews with more recent search dates may include more evidence. In 2019, many stakeholders considered that there was already sufficient evidence of effectiveness since the 2015 review. Therefore, the earlier evidence search date of June 2020 is considered reasonable.

Consideration was given to re-running the evidence searches for evaluations commenced earlier in the process to consider any additional evidence that may have been published since the original search date. However, this would have considerably delayed completion of the Review and may have resulted in an ongoing update of the evaluations. For completeness and transparency, the results of all evaluations were compared to those of more recent systematic reviews, where applicable and available, at the time each evidence evaluation was finalised. Where the question and analysis were comparable to the current evaluations the conclusions were consistent.

Consideration of studies in languages other than English

Due to the time and cost required for translation of studies, while studies were not excluded based on country of origin, databases in languages other than English were not searched. Possible eligibility of studies in languages other than English found from English language databases was assessed on the available title and abstract information, however, as per protocol, these studies were not translated. Studies in languages other than English were listed as awaiting classification in an appendix for completeness but were not included in further analysis.

These studies are potentially relevant and possibly eligible for inclusion (pending translation into English) however, in general, it is unlikely that results of the studies awaiting classification would differ substantially from those published in English or change the overall conclusions of the evaluations.

Availability of studies for prioritised conditions and outcomes

It was not possible, for every therapy, to cover all the conditions and/or outcomes for which people seek or use the therapies. For some therapies, there was not much evidence, and the resultant evaluation was limited to the conditions and outcomes for which evidence was available. As noted above, for some therapies there was a large amount of evidence and populations were prioritised to those relevant to the Australian context.

For Naturopathy Review B, the volume of evidence was so large that prioritisation took place before protocol with a plan for further reduction once work commenced if needed, and this further reduction in scope was undertaken. For Western Herbal Medicine (WHM), this additional step had not taken place and the resulting volume of evidence (and work to complete it) was so large that outcomes for some of the prioritised conditions were not included in the evaluation. However, the overall conclusion that there is moderate certainty evidence of an effect for some conditions did not change (see WHM summary below and evaluation for more details).

Descriptions of therapies and qualifications of practitioners

Descriptions of each therapy under review were developed with NTREAP, often with input from other experts in that therapy. These can be found in the Glossary and each evaluation.

Many of the therapies under review have similarities to each other or to other therapies not under review. So for most of the therapies under review studies were considered for inclusion if they named the therapy relevant to that review (e.g. studies described as tai chi were considered for the review of tai chi). For some therapies there are sub-types of the therapy; these were included except where explicitly noted in the reports (see Appendix A of each evidence evaluation for details of the inclusion and exclusion criteria). Many of the studies poorly reported details of what was done making it difficult to differentiate further.

The therapies under review are not regulated in terms of who can or cannot provide them. For most, there are professional bodies which set educational standards, however these may not be standardised across parts of the world. Many of the studies of these therapies do not report whether those delivering the therapy meet any specific qualifications. Therefore, it is not possible to comment on the effects of practitioner qualifications on the effectiveness of the therapies.

Summary of main results from evidence evaluations

The key messages and summary results provided below are from the content of the relevant evidence evaluations as indicated. For explanation of the language used regarding certainty of evidence, please refer to 'certainty' in the Glossary. The results emphasise first where evidence is available, generally ordered by certainty rather than by condition, with the most certain conditions/outcomes first, then acknowledging outcomes where there was very low certainty evidence or evidence was not available. For language used in relation to prioritised outcomes refer to the 'Targeting of studies' section.

Alexander Technique

Brief therapy description

Alexander technique is an education approach in which verbal instruction, gentle hand contact, and feedback guide participants in making subtle changes to their movement or action. The aim is to promote or restore beneficial posture, coordination, balance, movement, breathing patterns and function by raising awareness of previously unnoticed habitual patterns that proponents suggest may underlie common musculoskeletal conditions and affect mobility.

(For more detail see pp.13-14 of the evidence evaluation at Appendix B)

Key messages

For people with chronic musculoskeletal pain (low back or neck), the Alexander Technique probably reduces disability and may reduce pain, but may make little difference to quality of life or emotional well-being.

For people with mobility limitations or at risk of falls, the Alexander Technique may improve mobility, but effects on other critical outcomes, such as falls, disability and quality of life, are very uncertain.

(For more detail see p.6 of the evidence evaluation at Appendix B)

Summary of results

For people with chronic musculoskeletal conditions involving low back pain or neck pain:

- There was moderate certainty that the Alexander Technique:
 - probably improves physical function (disability) (3 trials, 611 participants),
- There was low certainty that the Alexander Technique:
 - may reduce pain (4 trials, 611 participants),
 - may make little to no difference to health-related quality of life (2 trials, 679 participants),
 - may make little to no difference to emotional wellbeing and stress (4 trials, 655 participants), and

- The Alexander Technique has unknown effects on physical function (mobility) and global symptoms/overall disease status because no studies reported on these outcomes.

No studies examined effects among people with other chronic musculoskeletal conditions.

For people with mobility limitations or at risk of falls (including low vision and Parkinson's disease):

- There was low certainty that the Alexander Technique:
 - may improve physical function (mobility) (2 trials, 139 older people with low vision or Parkinson's disease)
- The Alexander Technique has very uncertain effects on:
 - health-related quality of life (1 trial, 113 older people with low vision),
 - physical function (disability) (1 trial, 59 people at risk of falls due to Parkinson's disease),
 - rate of falls (1 trial, 138 older people with low vision), and
 - emotional wellbeing (3 trials, 198 older people with low vision or Parkinson's disease).

The Alexander Technique has unknown effects on global symptoms/overall disease status because no studies reported on these outcomes.

No studies examined effects among people with other mobility limitations or falls risk factors.

(For more detail see pp.7-8 of the evidence evaluation at Appendix B)

Aromatherapy

Brief therapy description

Aromatherapy is the therapeutic use of essential oils from plants (flowers, herbs, or trees) to treat ill health and promote physical, emotional and spiritual well-being. The name 'aromatherapy' suggests that treatments are delivered directly or indirectly through the olfactory system and that 'aroma' is central to therapeutic action. However, there are multiple modes of administration, and these include treatments intended to act through direct contact with the skin and inhalation into the lungs (rather than through an 'aroma' inhaled through the olfactory system). The inclusion of such therapies within the scope of aromatherapy practice has led some professional groups to suggest that a more apt description is "essential oil therapy".

(For more detail see pp.17-18 of the evidence evaluation at Appendix C)

Key messages

There is a large and growing body of evidence examining the effects of aromatherapy on health.

It is not possible to draw conclusions about the effects of aromatherapy with confidence for any condition or outcome. The evidence is of low or very low certainty, meaning that the true effect of aromatherapy may be substantially different.

(For more detail see p.6 of the evidence evaluation at Appendix C)

Summary of main results

The evidence provides low certainty that across multiple conditions and compared to an inactive control (placebo, no intervention, usual care), aromatherapy (delivered by inhalation, massage, or topically) may improve:

- sleep quality (no trials among people living with dementia and behaviour change),
- health-related quality of life, and
- physical function.

For pain, nausea and vomiting, fatigue, emotional functioning and mental health the evidence was very uncertain overall. For these outcomes, the effects varied importantly across studies; some studies showed benefit, others showed little or no effect on the outcome. These inconsistent effects were not explained by differences in the population receiving aromatherapy nor by the way in which aromatherapy was delivered (mode of delivery).

For some population groups the results were somewhat more certain, as follows.

There was low certainty that aromatherapy may improve:

- pain among people with chronic musculoskeletal conditions,
- acute or episodic pain conditions (mainly dysmenorrhea),
- nausea and vomiting during pregnancy,
- mental health among people with symptoms of mental distress,
- physical function among people with chronic musculoskeletal conditions.

There was also low certainty evidence that aromatherapy may have little or no effect on:

- mental health among people living with cancer (no trials among people with non-cancer advanced disease that was not amenable to cure),
- mental health among people living with dementia (mainly agitation).

Fewer studies compared aromatherapy massage to an inactive massage control (comparable to that used to deliver aromatherapy). There was low certainty evidence that health-related quality of life improved with aromatherapy massage, but it was uncertain whether there was benefit or little or no effect on other outcomes. There were no studies that compared aromatherapy massage to an inactive massage control for nausea and vomiting or sleep quality.

(For more detail see p.7 of the evidence evaluation at Appendix C)

Bowen Therapy

Brief therapy description

In a Bowen therapy session, therapists use their thumbs and fingers to apply gentle rolling movements over muscle, ligament, tendon and other connective tissues according to each patient's presentation. Each set of hand movements is interspersed with rest times of a few minutes to allow for integration and adaptation by muscles, fascia and nervous system. Adequate patient hydration before, during and after treatment is considered an important aspect of Bowen therapy. This is said by proponents to promote healing by stimulating the body's nervous, endocrine and connective tissue (fascial) systems.

(For more detail see p.13 of the evidence evaluation at Appendix D)

Key messages

A single trial found Bowen therapy may improve health-related quality of life and mental health among people with neck pain.

The evidence is very uncertain about whether Bowen therapy improves critical outcomes for people with pain conditions, such as pain or physical function (Results from the study of headache were not fully reported so could not be interpreted.)

(For more detail see p.6 of the evidence evaluation at Appendix D)

Summary of main results

There was low certainty evidence that Bowen therapy:

- may improve mental health slightly in people with chronic musculoskeletal pain (one trial, 84 people with neck pain and mild symptoms of depression)
- may increase health-related quality of life in people with chronic musculoskeletal pain (one trial, 84 people with neck pain).

The evidence was very uncertain about the effects of Bowen therapy on:

- pain among people with pain conditions (3 trials, 135 people with chronic neck pain or chronic multisite pain involving upper and lower body), and
- function among people with pain conditions (3 trials, 135 people with chronic neck pain or chronic multisite pain involving upper and lower body).

The evidence is very uncertain about the effects of Bowen therapy compared with other active treatments.

No studies examined the effects of Bowen therapy on other conditions, including those conditions that Bowen therapists in Australia report as treating most often.

(For more detail see p.7-8 of the evidence evaluation at Appendix D)

Buteyko method

Brief therapy description

Buteyko Method (Buteyko) has been described as a health education program involving breathing techniques, posture, health and lifestyle guidelines, with the aim of returning breathing to an optimal pattern. It may include relatively conventional breathing techniques (e.g. nasal breathing / inspiration) alongside other techniques (e.g. mouth taping, long breath holds). While the choice of specific breathing techniques differs between practitioners, and is usually individualised to the patient, Buteyko typically involves a structured set of daily exercises focused on “reduced-volume” breathing (relaxed diaphragm breathing), breath-holding techniques and nasal breathing (inspiration and exhalation). Reduced breathing exercises focus on reducing tidal volume (breath size in both the inhalation and exhalation phases). Breath-holding techniques include the control pause (used at the beginning and end of the exercises to assess breathing) and if appropriate, an individually tailored “extended” pause (to progressively increase the time the patient can hold their breath), which may be used as a symptom relief and/or breathing retraining tool. Patients may be taught to clear the nasal passages with breath-holding techniques and are encouraged to nasal breathe at all times, including during sleep and exercise. Mouth taping has been advocated by some as a way of ensuring nasal breathing while sleeping.

(For more detail see p.15 of the evidence evaluation at Appendix E)

Key messages

For people with asthma, evidence from six small trials shows that Buteyko may reduce asthma symptoms, but effects on other critical outcomes such as health-related quality of life and physical function (activity limitations) are very uncertain.

For other conditions, effects on critical and important outcomes such as health-related quality of life, symptoms and physical function are either very uncertain or unknown (because the outcome has not been measured in any study).

One study on anxiety was found after completion of the evaluation. It was not included in the synthesis. This study provides very low-certainty evidence and its inclusion in the evaluation would not change the overall conclusion.

(For more detail see p.6 of the evidence evaluation at Appendix E)

Summary of main results

For people with asthma:

- There is low certainty evidence that Buteyko may reduce symptoms (6 trials, 339 adults and children),
- Buteyko has very uncertain effects on:
 - health-related quality of life (2 trials, 115 adults),
 - physical function – activity limitations (2 trials, 239 adults and children),
 - lung function (3 trials, 151 adults and children),
 - emotional functioning and mental health (2 trials, 115 adults), and

- Buteyko has unknown effects on breathing patterns/ventilation because no studies reported on these outcomes. Medication use was reported under symptoms where possible and no additional studies were found.

For people with chronic obstructive pulmonary diseases (COPD):

- Buteyko has very uncertain effects on:
 - physical function - activity limitations (1 trial, 25 people),
 - lung function (1 trial, 25 people), and
- Buteyko has unknown effects on HR-QoL, symptoms (e.g. shortness of breath), emotional functioning and mental health, breathing patterns/ventilation (eligible outcomes) or healthcare resource use because no studies reported on these outcomes.

For people with hypertension or recovering from coronary artery bypass grafting (CABG) surgery:

- Buteyko has very uncertain effects on:
 - physical function - activity limitations (2 trials, 110 people with hypertension or after CABG surgery),
 - emotional functioning and mental health (1 trial, 44 people after CABG surgery),
 - physiological signs and symptoms (1 trial, 66 people with hypertension)
- Buteyko has unknown effects on health-related quality of life, symptoms, lung function, breathing patterns and ventilation, or pain because no studies reported on these outcomes.

No studies examined effects among people with other cardiovascular conditions.

For people with eustachian tube dysfunction:

- Buteyko has very uncertain effects on symptoms (1 trial, 51 people),
- Buteyko has unknown effects on HR-QoL, physical function – hearing, physical function – balance, emotional functioning and mental health, or pain because no studies reported on these outcomes.

No studies examined effects among other conditions for which Buteyko may be used. These conditions include dysfunctional breathing (hyperventilation syndrome), sleep disorders (especially sleep apnoea), allergies affecting the respiratory system, sinusitis and breathing abnormalities (e.g. chronic mouth breathing in children).

(For more detail see p.7-8 of the evidence evaluation at Appendix E)

Feldenkrais

Brief therapy description

Feldenkrais is described as a universal method for improving human life through better movement, sensation, posture and breathing. Trained practitioners use “touch, movement, guided imagery, and mindful body awareness with the aim of stimulating the brain to make useful and lasting improvements to movement and posture”.

(For more detail see p.14 of the evidence evaluation at Appendix F)

Key messages

The evidence is very uncertain about whether Feldenkrais improves critical or important outcomes for people with chronic musculoskeletal conditions and people with conditions that affect mobility or at risk of falls. There are no studies among people with other conditions, such as other chronic pain, or stress, anxiety and mood disorders.

(For more detail see p.6 of the evidence evaluation at Appendix F)

Summary of main results

For people with chronic musculoskeletal conditions the evidence was very uncertain about the effects of Feldenkrais on:

- pain (4 trials, 154 people with low back or neck and shoulder pain),
- function (disability) (1 trial, 51 people with neck and shoulder pain),
- emotional functioning and mental health (1 trial, 26 people with low back pain),
- breathing patterns (1 trial, 34 people with low back pain).

For people with conditions that affect mobility and falls risk the evidence was very uncertain about the effects of Feldenkrais on:

- falls (falls rate and falls efficacy) (3 trials, 114 older adults and people with multiple sclerosis),
- function (disability) (3 trials, 107 older adults and people with multiple sclerosis),
- function (mobility) (5 trials, 205 older adults and people with multiple sclerosis or intellectual disability),
- health-related quality of life (3 trials, 133 older adults at risk of falls),
- emotional functioning and mental health (2 trials, 87 older adults and people with multiple sclerosis),
- fatigue (1 trial, 40 participants people with multiple sclerosis).

No studies identified reported on overall disease status. No studies identified examined the effects of Feldenkrais on other conditions, such as other chronic pain, or stress, anxiety and mood disorders.

(For more detail see p.7-8 of the evidence evaluation at Appendix F)

Homeopathy

Brief therapy description

Homeopathy is an alternative medical system that was first developed approximately 200 years ago by the German pharmacist Samuel Hahnemann. It is based on the premise “treat likes by likes”, that is, if a substance causes similar symptoms in a healthy person that same substance in a highly diluted dose can treat a disease with similar symptoms. The homeopathic system of treatment allocation and the recognition of clinical patterns of signs and symptoms differ from those of conventional medicine.

(For more detail see p.2 of the evidence evaluation at Appendix G)

Key messages

For the populations (or conditions) assessed, homeopathy appears to provide little to no benefit when compared with placebo (i.e. something that looks identical to the intervention, but is designed to have no therapeutic effect) for most of the priority outcomes for which there is evidence available. Similar results were seen in the few studies that compared homeopathy to inactive control (e.g. waitlist). The evidence assessed in this evaluation was rated as moderate to very low certainty.

(For more detail see p.xvi of the evidence evaluation at Appendix G)

Summary of main results

For the primary comparison, the evidence provides low certainty that homeopathy may be more effective than placebo for two conditions. The evidence also provides low certainty that homeopathy may be no more effective than placebo for many of the conditions and outcomes considered critical or important in this evaluation. There are also several conditions and outcomes assessed in this evaluation where the effect of homeopathy compared to placebo is uncertain (very low certainty) or unknown.

The evidence provides low certainty that homeopathy may be effective compared to placebo in:

- reducing medication use (1 RCT, 108 participants) in people with allergic rhinitis,
- reducing disease severity (3 RCTs, 172 participants) in people with atopic dermatitis.

The evidence provides low certainty that homeopathy may have little (to no) effect compared to placebo in:

- improving quality of life (2 RCTs, 106 participants) in people with atopic dermatitis,
- reducing infection frequency (1 RCT, 96 participants) in people with recurrent otitis media,
- improving quality of life (1 RCT, 170 participants) or reducing medication use (2 RCTs, 377 participants) in people with recurrent upper respiratory tract infections,
- reducing anxiety (3 RCTs, 150 participants), depression (1 RCT, 44 participants), or emotional functioning (1 RCT, 44 participants) in people with anxiety,

- reducing insomnia severity, sleep quality or sleep onset latency (1 RCT, 60 participants) in people with insomnia,
- improving quality of life (2 RCTs, 291 participants) or reducing medication use (1 RCT, 89 participants) in people with asthma,
- reducing symptom severity (1 RCT, 292 participants) or symptom duration (3 RCTs, 448 participants) in people with diarrhoea,
- reducing disease severity (1 RCT, 200 participants) in people with psoriasis,
- reducing pain intensity (1 RCT, 134 participants), stiffness (1 RCT, 134 participants) or improving quality of life (1 RCT, 134 participants) in people with back or neck pain,
- improving quality of life (1 RCT, 108 participants) in people with menopausal symptoms or complaints,
- reducing fatigue (1 RCT, 86 participants) or improving quality of life (1 RCT, 86 participants) in people with chronic fatigue conditions.

Similarly, in the secondary comparison (inactive control), the evidence provides moderate to low certainty that homeopathy (in some cases plus usual care) is probably, or may be, more effective than not using homeopathy for three conditions and outcomes considered critical or important in this evaluation. The evidence also provides moderate to low certainty that using homeopathy (in some cases plus usual care) is probably, or may be, no more effective than not using homeopathy for many conditions and outcomes considered critical or important in this evaluation. For most of the conditions and outcomes assessed in this evaluation the effect of homeopathy compared to inactive control is uncertain (very low certainty) or unknown.

The evidence provides moderate certainty that homeopathy is probably more effective than no intervention in:

- reducing infection frequency (1 RCT, 256 participants) in people with recurrent upper respiratory tract infections.

(The evidence from the primary comparison with placebo (1 RCT, 40 participants), was very uncertain about the effect of homeopathy on infection frequency in people with recurrent upper respiratory tract infections).

The evidence provides low certainty that homeopathy may be more effective than no intervention in:

- reducing antibiotic use (2 RCTs, 306 participants) in people with recurrent upper respiratory tract infections,
- reducing symptom severity (1 RCT, 60 participants) in people with menstrual disorders.

(The evidence from the primary comparison with placebo showed low certainty that homeopathy may have little to no effect on antibiotic use (2 RCTs, 377 participants). The evidence from the primary comparison with placebo was very uncertain about the effect of homeopathy on symptom severity (2 RCTs, 211 participants) for menstrual disorders.)

The evidence provides moderate certainty that homeopathy probably has little (to no) effect compared to no intervention in:

- reducing depression severity (1 RCT, 566 participants) in people with depression.

(The evidence for this outcome in the primary comparison was very uncertain about the effect of homeopathy on depression severity (1 RCT, 44 participants) in people with depression).

The evidence provides low certainty that homeopathy may have little (to no) effect compared to no intervention on:

- symptom severity (1 RCT, 210 participants) in children with recurrent otitis media,
- symptom severity (2 RCTs, 86 participants), health-related quality of life (2 RCTs, 86 participants), hospitalisation (1 RCT, 35 participants) or medication use (1 RCT, 35 participants) in people with asthma,
- symptom severity (1 RCT, 76 participants) or health-related quality of life (1 RCT, 76 participants) in people with irritable bowel syndrome,
- pain (1 RCT, 36 participants), fatigue (1 RCT, 36 participants), health-related quality of life (1 RCT, 36 participants), or emotional wellbeing (1 RCT, 36 participants) in people with fibromyalgia.

(These results are generally consistent with those from the primary comparison with placebo, although sometimes the level of certainty differs.)

The planned subgroup analysis comparing individualised and non-individualised homeopathy could not be completed because of the small number of studies in each condition.

(For more detail see pp.xviii-xix of the evidence evaluation at Appendix G)

Iridology

Brief therapy description

Iridology is not an intervention but rather a practice that claims to diagnose illness or disease by examining the patterns, colours, and other characteristics of the iris (the coloured part of the eye). Iridology may be used as a diagnostic tool by a wide variety of professionals in the natural health community to confirm clinical observations. Iridology is based on the premise that every organ has corresponding location(s) within the iris of the eye, in which structural and pigmentation components can serve as indicators for condition(s) and/or problem(s) in the human body.

(For more detail see p.11 of the evidence evaluation at Appendix H)

Key messages

For the populations (or conditions) assessed with manual examination of the iris or images of the iris, the evidence shows, with low certainty, that iridology is not an effective diagnostic tool.

(For more detail see p.4 of the evidence evaluation at Appendix H)

Summary of main results

Overall studies suggested that manual iridology was not a reliable or accurate diagnostic technique. The accuracy of identification for a specific disease versus no disease was not greater than chance (50%).

The evidence provides low certainty that manual examination using iridology:

- cannot accurately detect differences between patients with kidney disease and patients without kidney disease,
- cannot accurately detect differences between patients with colon carcinoma and patients without colon carcinoma,
- cannot accurately detect differences between patients with gallbladder disease and patients without gallbladder disease,
- cannot accurately detect differences between patients with cancer (breast, ovary, uterus, prostate or colorectum) and patients without cancer (breast, ovary, uterus, prostate or colorectum),
- cannot accurately detect differences between patients with orthopaedic trauma and patients without orthopaedic trauma.

(For more detail see p.5 of the evidence evaluation at Appendix H)

Kinesiology

Brief therapy description

The Australian Kinesiology Association describes kinesiology as a non-invasive holistic therapy that uses manual muscle testing to assess imbalances expressed in the body (i.e. “anatomical, physiological and psychological stressors”). According to Dr Anne Jensen, “During a muscle test, a practitioner applies a force to one muscle or group of muscles, with a particular intent in mind. The muscle is then labelled “weak” or “strong” based on its ability to resist this force.”. Although specialised kinesiology is a derivative of Applied Kinesiology, the muscle testing techniques used in the latter are highly systematised, requiring practitioners to follow a consistent protocol in order to meet requirements of the International College of Applied Kinesiology. The extent to which specialised kinesiology follows systematised protocols is unclear and such derivatives have been described as lacking ‘one or more of the essential attributes’ of Applied Kinesiology.

(For more detail see p.13 of the evidence evaluation at Appendix I)

Key messages

One single study was found which evaluated the effects of specialised kinesiology (kinesiology) among people with chronic low back pain (referred to as Professional Kinesiology Practice (PKP) in the study). The evidence is very uncertain about whether specialised kinesiology improves critical or important outcomes for people with chronic low back pain.

(For more detail see p.6 of the evidence evaluation at Appendix I)

Summary of main results

The evidence was very uncertain about the effects of specialised kinesiology compared with an intervention that involved non-individualised muscle testing and sham treatments on:

- pain,
- physical function (disability),
- health-related quality of life,
- emotional functioning and mental health.

The evidence was very uncertain about the effects of specialised kinesiology compared with a wait list control on:

- pain,
- physical function (disability).

The trialists measured, but did not report effects on health-related quality of life or emotional functioning and mental health for the wait list control group.

No studies were identified examining the effects of specialised kinesiology on other conditions, including those conditions for which specialised kinesiology is commonly sought or prescribed.

(For more detail see pp.7-8 of the evidence evaluation at Appendix I)

Naturopathy (Reviews A and B)

Review A - Whole system, multi-modal or single modal interventions

Brief therapy description

Naturopathy can be defined as a system of healthcare with a deep history of traditional philosophies and principles, utilising several natural therapy modalities to treat patients.

For the purposes of Review A (the evaluation), the interventions of interest are whole system, multi-modal or single modal interventions delivered in the context of naturopathic practice:

- 'Whole system' in the context of naturopathy 'refers to the practice of naturopathy as a complex health care system that addresses simultaneously the multiple dimensions (physical, mental, spiritual, family, community, and environment) of an individual patient as pragmatically practised by naturopathic clinicians'.
- 'Multi-modality' refers to 'a minimum of two modalities as part of a single clinical approach to the treatment of an individual'.
- 'Single modality' refers to the individual modalities used by a naturopath.

(For more detail see p.1 of the evidence evaluation at Appendix J)

Key messages

For the populations (or conditions) assessed, naturopathy appears to provide people with some benefit for some of the conditions and outcomes assessed in this evaluation, when compared with people who do not use naturopathy. The evidence assessed in the evaluation provides low certainty.

(For more detail see p.ix of the evidence evaluation at Appendix J)

Summary of main results

The evidence provides low certainty that naturopathy is more effective than not using naturopathy for some outcomes in people with polycystic ovarian syndrome. The evidence provides low certainty that naturopathy has little (to no) benefit for some of the conditions and outcomes assessed in this evaluation. For most of the conditions and outcomes assessed in this evaluation the effect of naturopathy is very uncertain or unknown.

The evidence provides low certainty that naturopathy is effective in:

- improving quality of life and menstrual regularity in people with polycystic ovary syndrome (PCOS) (one study, 122 participants). Participants received a lifestyle intervention, consultations with a qualified naturopath and herbal supplements.

The evidence provides low certainty that naturopathy has little (to no) effect on:

- cognitive impairment in people with multiple sclerosis (one study, 30 participants). Participants received naturopathic treatment plus usual care, which included visits with a naturopath, daily supplementation with multivitamins and minerals, fish oils and alpha-lipoic acid, intramuscular vitamin B12 and dietary intervention,
- cardiovascular risk factors (i.e. risk of heart attack, LDL cholesterol levels), prevalence of metabolic syndrome and impact on severity of type 2 diabetes (i.e. blood sugar levels) in people at risk of cardiovascular disease (one study, 246 participants). Participants received naturopathic care plus enhanced usual care, which included visits with a naturopath, individualised naturopathic treatments, diet and lifestyle recommendations and natural dietary supplements.

The evidence provides very low certainty of the effect of naturopathy on many of the prioritised outcomes for colon cancer, prostate cancer, type 2 diabetes, PCOS, overweight and obesity, anxiety, multiple sclerosis, cardiovascular disease, allergic rhinitis, low back pain, rotator cuff tendinitis and menopause.

Of the populations (conditions) identified in this evaluation, the effect of naturopathy for 44 outcomes considered critical or important remain unknown, as no studies were found that assessed these outcomes.

(For more detail see p.1 of the evidence evaluation at Appendix J)

Review B - selected nutritional supplements

Brief therapy description

Naturopathy covers a wide range of modalities. The use of nutritional supplementation (sometimes termed “clinical nutrition”) is one of the most frequently used interventions in naturopathic practice; a survey conducted by PRACI identified that nutritional supplementation is prescribed by approximately 65% of Australian naturopaths surveyed. When prescribed in the context of naturopathic practice, nutritional supplements as an intervention are used to treat specific deficiencies or to treat or prevent certain conditions. In prescribing nutritional supplements, naturopaths may consider nutrient adequacy, food quality, dietary behaviours, and lifestyle to develop an individualised nutrition care plan.

(For more detail see p.19 of the evidence evaluation at Appendix K)

Key messages

For the population/condition and supplement combinations assessed, some nutritional supplements can probably, or may, improve some key health outcomes. The evidence assessed in the overview (evaluation) provided moderate to low certainty.

(For more detail see p.4 of the evidence evaluation at Appendix K)

Summary of main results

The evidence provides moderate to low certainty that taking nutritional supplements is more effective than not taking supplements for some conditions in the evaluation. The evidence also provides moderate to low certainty that nutritional supplements have little (or no) benefit for some conditions assessed in this evaluation. There are some population-supplement pairs where the effect of the supplement is unknown.

The evidence provides moderate certainty that nutritional supplements probably improve some key health outcomes for people with, or at-risk of, four conditions:

- Probiotics probably improves the number of people with global symptom improvement for people with irritable bowel syndrome (IBS) although probiotics may have little to no effect on global IBS symptoms or response on average,
- Antioxidants (specifically CoQ10 and alpha-lipoic acid (ALA)) probably reduce global fatigue severity/burden for people with fatigue (including myalgic encephalomyelitis (ME) and chronic fatigue syndrome (CFS)),
- Zinc probably reduces recurrent infections when measured by the number of episodes of infection per child per year in children with otitis media (although when recurrence is measured by the number of children with at least one episode of infection during follow-up, zinc may have little to no effect on recurrent infections in children with otitis media),
- Antioxidants (specifically CoQ10 and ALA) probably improve fasting blood glucose and glycaemic control in people with obesity at risk of type 2 diabetes.

The evidence provides low certainty that nutritional supplements may improve some key health outcomes for people with four conditions:

- Magnesium with a naturopathy co-intervention may improve anxiety-related emotional functioning/mental health burden in people with anxiety,
- Probiotics may improve stool consistency and health-related quality of life, and slightly improve abdominal pain and stool frequency in people with IBS,
- Magnesium may reduce headache frequency and the number of days with migraine for people with headache and migraine,
- Omega-3 fatty acids may slightly improve systolic blood pressure for people with hypertension.

The evidence provides moderate certainty that nutritional supplements probably result in little to no difference for some key health outcomes for people with two conditions:

- Antioxidants probably have little to no effect on fasting blood glucose, glycaemic control, or diastolic blood pressure in people with type 2 diabetes,
- Omega-3 fatty acids probably have little to no effect on depression-related emotional functioning/mental health burden in people at-risk of perinatal depression.

The evidence provides low certainty that nutritional supplements may result in little to no difference for some key health outcomes for people with, and at-risk of, two conditions:

- Omega-3 fatty acids may have little to no effect on the number of people with response (50% improvement) or remission (no or low depression) in people with depression,
- Omega-3 fatty acids may have little to no effect on diastolic blood pressure in people with hypertension.

The overview found only very low certainty evidence for the following pairings: magnesium (alone) for anxiety, magnesium for insomnia/sleep disorders, zinc for atopic disorders, and magnesium for fibromyalgia, and for some priority outcomes within the conditions listed above.

No relevant reviews were identified for: magnesium for stress (perceived, occupational), cruciferous indoles for dysmenorrhea, cruciferous indoles for premenstrual syndrome (PMS), and magnesium for arthritis/osteoarthritis.

(For more detail see pp.5-6 of the evidence evaluation at Appendix K)

Pilates

Brief therapy description

The Pilates system of body conditioning is founded on stabilising the core musculature (including the abdominal, gluteal and paraspinal muscles), while performing a controlled range of motions. Exercises are performed according to six key principles: centring (tightening and strengthening the body's core 'trunk' muscles); concentration (with sensory awareness); control (ensuring postural integrity and functional alignment); precision (the accurate application of the exercise technique); flow (ensuring a smooth transition between movements and exercises); and focused coordinated breathing.

Contemporary Pilates involves a range of more than 500 exercises, which may be performed on a mat using auxiliary apparatus or specially designed equipment. Pilates professional teaching skills are specific to the method and include the use of cueing by demonstration or verbal direction for correct anatomical function, as well as using imagery, metaphor and non-invasive hands-on assistance for the correct performance of each exercise to facilitate improved motor control.

(For more detail see pp.27-28 of the evidence evaluation at Appendix L)

Key messages

For the populations (or conditions) assessed, Pilates appears to provide people who practise it with some benefit for some of the included conditions and outcomes, when compared with people who do not practise Pilates. However, in general the evidence assessed in this evaluation provides low certainty.

(For more detail see p.19 of the evidence evaluation at Appendix L)

Summary of main results

The evidence provides moderate to low certainty that practising Pilates is more effective than not practising Pilates for some of the conditions and outcomes assessed in this evaluation. However, the evidence also provides moderate to very low certainty that Pilates has little (to no) benefit for some of the conditions and outcomes assessed in this evaluation. There are some conditions and outcomes assessed in this evaluation where the effect of Pilates is unknown.

The evidence provides moderate certainty that Pilates is effective in:

- improving incontinence-related quality of life in men (after radical prostatectomy) (from two studies, 126 participants),
- reducing disability (12 studies, 937 participants) and improving overall quality of life (one study, 295 participants) in people with chronic low pain back.

The evidence provides low certainty that Pilates is effective in:

- reducing pain in people with low back pain (12 studies, 1062 participants),
- improving physical wellbeing in people with post viral arthropathies (one study, 42 participants),
- reducing neck-related disability (two studies, 101 participants) and improves some measures of quality of life for people with chronic neck pain (one study, 64 participants),
- improving sleep quality (one study, 72 participants), vasomotor (one study, 74 participants) and physical symptoms (one study, 74 participants) in women with symptoms of menopause,
- improving quality of life in people with osteoporosis (one study, 40 participants), knee stability in people rehabilitating after knee injury (one study, 50 participants) and physical functioning in people at risk of age-related decline (two studies, 60 participants),
- improving activities of daily living in women with type 2 diabetes (one study, 24 participants),
- improving mental wellbeing in people with multiple sclerosis (one study, 30 participants) and anxiety in people at risk of mental health conditions (one study, 62 participants).

The evidence provides moderate certainty that Pilates has little (to no) effect on:

- functional capacity for people with low back pain (two studies, 381 participants).

The evidence provides low certainty that Pilates has little (to no) effect on:

- physical (one study, 45 participants) and mental wellbeing (one study, 45 participants), body mass index (one study, 45 participants) and fatigue (one study, 45 participants) for women with type 2 diabetes,
- physical wellbeing (one study, 30 participants) and functional mobility (3 studies, 80 participants) in people with multiple sclerosis,
- functional mobility in stroke recovery (one study, 20 participants),
- global perceived effect (one study, 55 participants), physical functioning (one study, 55 participants), quality of life (one study, 55 participants) and spinal mobility (one study, 55 participants) in people with spondyloarthropathies,
- non-narcotic analgesic use (one study, 60 participants) in people with low back pain,
- static balance in people with osteoporosis (one study, 40 participants),
- general health perception in people at risk of age-related mental decline (one study, 64 participants).

The effect of Pilates for women undergoing breast cancer treatment, people with hypertensive heart disease, people with chronic widespread pain, or people with shoulder pain is unknown, as no studies were found with outcomes selected as critical or important.

(For more detail see pp.20-21 of the evidence evaluation at Appendix L)

Reflexology

Brief therapy description

Reflexology is a non-invasive touch-based therapy in which practitioners use their hands, thumbs and fingers to apply pressure to specific points on the feet, hands, face and outer ears. The practice is based on the belief that there are “areas on the feet, hands, face, lower legs and ears” that correspond to other parts of the body, including organs and glands. Manual touch techniques “such as thumb- and finger-walking, hook and backup and rotating-on-a-point” are used to apply pressure to these ‘reflex points’ in order to stimulate a therapeutic response. The process is guided by a reflex map that shows the different zones of the body associated with each reflex point.

(For more detail see p.15 of the evidence evaluation at Appendix M)

Key messages

There is a large body of evidence examining the effects of reflexology on health.

The evidence is of low certainty for four of the outcomes examined in the evaluation and of very low certainty for all other outcomes (34 of 38), meaning that the true effect of reflexology may be substantially different. It is not possible to draw conclusions about the effects of reflexology with confidence for any condition or outcome.

(For more detail see p.6 of the evidence evaluation at Appendix M)

Summary of main results

Across multiple conditions and compared to an inactive control (placebo, no intervention, usual care), the evidence provides low certainty that reflexology may improve sleep quality (12 trials, 782 participants).

For pain, fatigue, emotional functioning and mental health, health related quality of life, physical function and global symptoms the evidence was very uncertain overall. For these outcomes, the effects varied importantly across studies; some studies showed benefit, others showed little or no effect on the outcome.

For some population groups the results were somewhat more certain, as follows.

There was low certainty that reflexology may:

- improve sleep quality for people with symptoms of sleep disruption (6 trials, 376 participants),
- reduce fatigue for people with certain chronic conditions (8 trials, 535 participants),
- improve health-related quality of life for people with certain chronic and longer-term conditions (12 trials, 777 participants).

Effects were very uncertain for:

- pain for surgery, procedures, labour and childbirth, other acute pain, cancer or advanced disease, chronic musculoskeletal conditions or other chronic pain,
- sleep quality for surgery, hospitalisation (not procedures) or cancer or advanced disease,
- fatigue for cancer or advanced disease, chronic musculoskeletal conditions or pregnancy,

- emotional functioning and mental health for surgery, procedures, hospitalisation (not procedures), labour or childbirth, mental distress, cancer or advanced disease, mental disorders, dementia,
- health related quality of life for cancer or advanced disease,
- physical function for cancer or advanced disease, chronic musculoskeletal conditions or other chronic conditions,
- global symptoms for cancer or advanced disease, other chronic conditions or chronic respiratory conditions.

No studies were found comparing reflexology to inactive controls for pain for people with acute musculoskeletal conditions or migraine / headache, sleep for people with chronic insomnia or dementia, or physical function for people with migraine or headache (chronic or episodic).

(For more detail see p.7 of the evidence evaluation at Appendix M)

Rolfing

Brief therapy description

Rolfing is a bodywork therapy that involves manipulative therapy, breath work, or energy therapy. It incorporates manipulation of the fascia, guided movement and movement education to improve overall body alignment, and biomechanical functioning.

The practice of Rolfing stems from the hypothesis that optimal physical and psychological well-being is achieved when structure and movement are aligned and integrated with gravity.

(For more detail see p.9 of the evidence evaluation at Appendix N)

Key messages

The evidence regarding effectiveness of Rolfing is limited.

The effects of Rolfing on the populations and conditions assessed in this evaluation are unknown, as the evidence provides very low certainty about the effect of Rolfing on the outcomes assessed.

(For more detail see p.5 of the evidence evaluation at Appendix N)

Summary of main results

The evidence provides very low certainty for the effect of Rolfing on: gross motor function in children with spastic cerebral palsy (two studies; one of Rolfing versus waitlist in 26 participants and one study of Rolfing versus interactive play in 8 participants); pain, quality of life, mental health, physical function and social function in low back pain (two studies; one study of Rolfing plus outpatient rehabilitation versus rehabilitation alone in 46 participants and one study of Rolfing versus Fascial Fitness in 36 participants); pain and quality of life in fibromyalgia (one study versus acupuncture in 60 participants); and flexibility in hamstring tightness (one study versus Active Release Technique in 40 participants).

(For more detail see p.6 of the evidence evaluation at Appendix N)

Shiatsu

Brief therapy description

Shiatsu therapy is a complex, whole-system intervention that is based on the philosophy and theory of traditional Chinese medicine. Popularised in the West following the legislation in Japan of “Anma-Shiatsu-Massage” in the mid-20th century, the word ‘shiatsu’ originates from the Japanese word meaning ‘finger pressure’, through which the therapist applies pressure to the acupuncture (tsubo) points on the body. This pressure is believed to assist with alleviating a variety of symptoms associated with health conditions.

(For more detail see p.22 of the evidence evaluation at Appendix O)

Key messages

For the populations (or conditions) assessed, there is moderate to low certainty evidence that shiatsu may provide some benefit for people with some of the included conditions and outcomes, when compared with people who do not receive shiatsu.

(For more detail see p.14 of the evidence evaluation at Appendix O)

Summary of main results

The evidence provides moderate to very low certainty that receiving shiatsu probably is, or may be, more effective than not receiving shiatsu for some of the conditions assessed in this evaluation. However, the evidence also provides low certainty that shiatsu may have little (or no) benefit for some of the conditions assessed in this evaluation. There are some conditions assessed in this evaluation where the effect of shiatsu is unknown.

The evidence provides moderate certainty that shiatsu probably:

- improves bowel recovery (1 RCT, 160 participants) in people recovering after minimally invasive surgery.

The evidence provides low certainty that shiatsu may:

- improve quality of life (1 RCT, 101 participants) in people with functional constipation,
- reduce overall symptom severity in people with dysmenorrhoea (1 RCT, 82 participants),
- reduce waist circumference (1 RCT, 54 participants) and improve systolic and diastolic blood pressure (1 RCT, 42 participants) in people with obesity,
- improve quality of life (1 RCT, 63 participants) and reduce symptoms of stress (1 RCT, 63 participants) in people with stress,
- reduce disability in people rehabilitating after stroke (1 RCT, 40 participants),
- improve cognitive function (1 RCT, 68 participants) in people with hypertension,
- improve post-operative nausea and vomiting (1 RCT, 98 participants), post-operative pain (2 RCTs, 190 participants), and post-operative respiratory function (1 RCT, 98 participants) in people recovering after minimally invasive surgery.

The evidence provides low certainty that shiatsu has little (to no) effect on:

- pain, disability or improved quality of life (1 RCT, 59 participants) in people with chronic musculoskeletal pain,
- pain intensity (1 RCT, 82 participants) in people with dysmenorrhoea,
- labour duration (1 RCT, 288 participants) in pregnant females.

The effect of receiving shiatsu on diabetes and postpartum care is unknown as no studies were found with outcomes selected as critical or important. For the supplementary assessment of the acupressure component, the results in acupressure were either inconsistent with the effect reported for shiatsu or the certainty of evidence was very low or unknown for either shiatsu or acupressure, such that a clear judgement about consistency of the effect could not be made.

(For more detail see p.15-16 of the evidence evaluation at Appendix O)

Tai Chi

Brief therapy description

Consisting of a series of slow and rhythmic circular motions moving from one form to another, Tai Chi is based upon the assumption from Confucian and Buddhist philosophy, in which 2 opposing life forces, yin and yang, govern our health. From a Traditional Chinese Medicine perspective, this extends to free flow of internal energy within the body, termed 'qi' or 'chi'. In focussing on the controlled breathing and circular body movements, Tai Chi facilitates the flow of 'qi,' harmonising a person's yin and yang.

(For more detail see pp.25-26 of the evidence evaluation at Appendix P)

Key messages

For the populations (or conditions) assessed, Tai Chi appears to provide people with some benefit for some of the included conditions and outcomes, when compared with people who do not practise Tai Chi. The evidence assessed in this evaluation provides moderate to low certainty.

(For more detail see p.15 of the evidence evaluation at Appendix P)

Summary of main results

The evidence provides moderate to low certainty that practising Tai Chi is more effective than not practising Tai Chi for some of the conditions assessed in this evaluation. The evidence also provides moderate to very low certainty that Tai Chi has little (or no) benefit for some of the other conditions assessed in this evaluation. There are some conditions and outcomes assessed in this evaluation where the effect of Tai Chi is unknown.

The evidence provides moderate certainty that Tai Chi probably:

- reduces pain (6 studies, 524 participants) and stiffness (5 studies, 427 participants) in people with osteoarthritis,
- reduces fear of falling in adults at high risk of falling (4 studies, 572 participants),
- improves psychosocial wellbeing in adults with neurocognitive disorders (1 study, 74 participants).

The evidence provides low certainty that Tai Chi may:

- increase activities of daily living and psychosocial wellbeing in people recovering from acute cardiac events (1 study, 61 participants),
- decrease pain in people recovering from acute cardiac events (1 study, 61 participants),
- improve functional mobility and quality of life in people with heart failure (1 study, 30 participants),
- reduce fatigue in cancer survivors (1 study, 30 participants),
- improve state and trait anxiety and quality of life (1 study, 33 participants) in people with symptoms of anxiety,
- improve some aspects of quality of life (2 studies, 65 participants) and symptoms of anxiety (1 study, 32 participants) in people living with an anxiety disorder and in perceived stress and state and trait anxiety and cardiovascular health (systolic blood pressure) (1 study, 33 participants) in people with symptoms of anxiety,
- improve cardiorespiratory health in people recovering from acute cardiac events (1 study, 50 participants),
- improve motor function in people rehabilitating after stroke (1 study, 28 participants),
- reduce the number of falls in people rehabilitating after stroke (1 study, 58 participants),
- improve quality of life in people with hypertensive heart disease (1 study, 113 participants),
- improve physical functioning (4 studies, 197 participants) and psychosocial wellbeing in people with osteoarthritis (2 studies, 141 participants),
- reduce disability (1 study, 77 participants) and improve quality of life (physical) in people with neck pain (1 study, 160 participants),
- reduce the number of falls (1 study, 76 participants) and improve experience of daily living (1 study, 20 participants) in people living with Parkinson's Disease,
- reduce fatigue in people undergoing treatment for cancer (2 studies, 164 participants).

The evidence provides moderate certainty that Tai Chi probably has little (to no) effect on:

- activities of daily living for people rehabilitating after stroke (2 studies, 123 participants),
- balance stability in adults at high risk of falling (1 study, 269 participants),
- pain for people with low back pain (4 studies, 404 participants).

The evidence provides low certainty that Tai Chi may have little (to no) effect on:

- respiratory health (1 study, 50 participants) or the level of dyspnoea-related disability (1 study, 60 participants) for people living with chronic obstructive pulmonary disease,

- mobility (3 studies, 278 participants) or the number of people experiencing one or more falls (2 studies, 328 participants) in adults at high risk of falling,
- perceived stress in people with hypertensive heart disease (1 study, 64 participants),
- knee-related quality of life in people with osteoarthritis (1 study, 32 participants),
- disability for people with low back pain (1 study, 160 participants),
- pain (2 studies, 96 participants) and psychosocial wellbeing (1 study, 77 participants) in people with neck pain,
- pain in people with fibromyalgia (1 study, 31 participants),
- balance stability (2 studies, 109 participants) and motor function (5 studies, 178 participants) in people living with Parkinson's Disease,
- sleep quality (1 study, 50 participants) and general health (heart rate variability) for people undergoing treatment for cancer (1 study, 114 participants),
- disease symptoms (improvement or severity) for people with depression (1 study, 38 participants),
- cardiovascular health (diastolic blood pressure) for people living with anxiety (1 study, 33 participants),
- balance stability for people living with multiple sclerosis (1 study, 34 participants),
- neurocognitive function (2 studies, 145 participants) activities of daily living (1 study, 72 participants) or balance stability (1 study, 68 participants) in adults with neurocognitive disorders,
- cardiorespiratory health for adults with coronary heart disease (1 study, 20 participants).

The effect of Tai Chi on rheumatoid arthritis and headache disorders is unknown, as no studies were found for outcomes selected as critical or important by NTWC.

(For more detail see pp.16-18 of the evidence evaluation at Appendix P)

Western Herbal Medicine

Brief therapy description

Western herbal medicine (WHM) or herbalism is a traditional system of plant-based medicine derived primarily from Europe, the United Kingdom, and North America. While medicinal plants from other herbal traditions, such as Traditional Chinese Medicine and Ayurvedic Medicine can be utilised by Western herbalists, the clinical application of WHM is distinct from these traditions. WHM uses plants and plant material to create medicines to help prevent or treat various illnesses. These materials may use some or all parts of a plant such as flowers, roots, stems and rhizomes, fruits and seeds, leaves and bark. Western Herbal Medicines are administered in various preparations including liquid herbal extracts such as tinctures or fluid extracts, oral tablets or capsules, or through topical application, for example, via poultices, creams and pessaries. Most commonly, liquid herbal extracts are prepared using an alcohol solvent, however, glycerol can be used as an alternative, when alcohol-based preparations may not be appropriate (e.g. when prescribing to children). Medicinal herbs can also be extracted in water, and this is commonly referred to as “tea”.

(For more detail see p.11 of the evidence evaluation at Appendix Q)

Key messages

For the populations (or conditions) assessed, individual Western Herbal Medicines (WHMs) probably provide people who use them with some benefit for some outcomes, when compared with people given a placebo (i.e. something that looks identical to the intervention but is designed to have no therapeutic effect). In general, the evidence assessed in this evaluation was rated moderate or low certainty. Very few results were found comparing the use of WHM to an inactive control (e.g., waitlist), and those that were found were of very low certainty.

(For more detail see p.1 of the evidence evaluation at Appendix Q)

Summary of main results

The evidence provides moderate to low certainty that using WHMs is more effective than not using WHMs for most of the conditions and outcomes assessed in this evaluation. There were three conditions for which the evidence also provides moderate to very low certainty that using WHMs has little (to no) benefit for some outcomes assessed in this evaluation. There were 2 conditions assessed in this evaluation where the effect of using WHMs is unknown (reflux and dermatitis/eczema). Due to the overall large volume of evidence, it was not feasible to critically appraise and synthesise data for 4 of the 16 prioritised conditions (diabetes, impaired glucose tolerance, metabolic syndrome and upper respiratory tract infections). The NTWC was not involved in prioritisation of conditions completed versus not completed (see NHMRC process report at Appendix A for additional information).

Compared with placebo:

The evidence provides moderate certainty that WHM probably:

- reduces pain intensity in people with menstrual conditions (dysmenorrhoea etc.) (7 RCTs, 601 participants) [WHM included ginger, cinnamon, valerian root or fenugreek],
- increases global improvement in people with premenstrual disturbances (6 RCTs, 839 participants) [WHM included chaste tree berry],
- increases clinical remission in people with inflammatory bowel disease (14 RCTs, 974 participants) [WHM included green tea extract, curcumin, Boswellia, aloe vera gel, Wormwood, St Mary's thistle or Andrographis],
- increases the proportion of people who achieve global improvement of symptoms in people with irritable bowel syndrome (19 RCTs, 1279 participants) [WHM included peppermint oil, curcumin + fennel, Carmint + Psyllium, anise oil, aloe vera juice, ginger or St John's wort],
- improves symptom severity in people with symptoms of menopause (16 RCTs, 1680 participants) [WHM included black cohosh extract, alone or in combination with St John's wort or red clover],
- reduces depressive symptoms in people with depression (33 RCTs, 3910 participants) [WHM included curcumin, saffron or St John's wort],
- reduces anxiety in people with anxiety (20 RCTs, 2087 participants) [WHM included valerian root, kava, Passiflora, saffron, chamomile, ginkgo biloba or lavender].

The evidence provides low certainty evidence that WHM may:

- reduce overall symptoms (8 RCTs, 1133 participants), depressive symptoms (5 RCTs, 613 participants), and anxiety (2 RCTs, 208 participants) in people with premenstrual disturbances [WHM included chaste tree],
- reduce anxiety and improve emotional functioning in people with depression (5 RCTs, 397 participants) [WHM included curcumin or saffron],
- reduce disease severity (3 RCTs, 183 participants) and increase patient-reported improvement (1 RCT, 70 participants) in people with acne [WHM included green tea-oral, green tea-topical],
- increase the proportion with clinical improvement (8 RCTs, 403 participants) in people with inflammatory bowel disease [WHM included green tea extract or curcumin],
- reduce pain (7 RCTs, 606 participants) and increase clinical improvement of symptoms (3 RCTs, 236 participants) in people with irritable bowel syndrome [WHM included peppermint oil or aloe vera juice],
- reduce depressive symptoms (2 RCTs, 129 participants), and improve overall symptoms (3 RCTs, 670 participants) and emotional functioning (2 RCTs, 508 participants) in people with anxiety [WHM included lavender, saffron, or chamomile],
- improve physical functioning (2 RCTs 508 participants) and sleep quality (2 RCTs, 382 participants) in people with anxiety [WHM included lavender],
- reduce symptoms of fatigue (3 RCTs, 185 participants) in people with chronic fatigue conditions [WHM included Siberian ginseng or panax ginseng],
- reduce hot flush frequency (14 RCTs, 1355 participants) in people with symptoms of menopause [WHM included black cohosh, red clover, valerian, valerian root, St John's wort or St John's wort + chaste tree].

The evidence provides moderate certainty that WHM probably has little (to no) effect on:

- sexual functioning in people with symptoms of menopause (7 RCTs, 887 participants) [WHM included ginseng, withania (ashwagandha), red clover or ginseng],
- sleep quality in people with insomnia (5 RCTs, 946 participants) [WHM included chamomile, valerian or kava].

The evidence provides low certainty that WHM probably results in little (to no) change in:

- disease activity in people with inflammatory bowel disease (2 RCTs, 151 participants) [WHM included curcumin],
- symptoms of anxiety in people with insomnia (2 RCTs, 425 participants) [WHM included kava, valerian or chamomile].

Results compared to inactive control (e.g. waitlist) were also examined, but for the majority of conditions there were no results found. For 2 populations (inflammatory bowel disease, menstrual conditions) the evidence was very uncertain.

Results compared to active control were examined for one condition. Here, the evidence provides moderate certainty that WHM (St John's wort) is probably comparable to antidepressants for improving symptoms of depression in people with depression.

(For more detail see pp.2-3 of the evidence evaluation at Appendix Q)

Yoga

Brief therapy description

Yoga is a traditional Indian discipline, incorporating various philosophies and spiritual practices. Current forms of yoga practice include many branches and various styles, but at its core are a set of principles and practices designed to promote health and wellbeing through the integration of body, breathing and mind. In this regard, almost all forms of yoga are characterised by one or more of physical postures or poses (asanas), controlled breathing (pranayama) and meditation (dhyana), delivered in accordance with yoga models of health, such as the pancamaya kosha (dimensions of the human system) and guna (fundamental forces of nature). Yoga practice can also be expanded to include asana relaxation, mudra (energetic gestures and seals), banda (energy locks), mantra (sacred sounds), bhavana (imagery), and sankalpa (affirmation/intention). Yogic lifestyle and nutrition advice and education in yoga philosophy may also be delivered in accordance with a yoga educational framework.

(For more detail see pp.9-10 of the evidence evaluation at Appendix R)

Key messages

For the populations (or conditions) assessed, yoga appears to provide people with some benefit for some of the included conditions and outcomes, when compared with people who do not practise yoga. The evidence assessed in this evaluation was rated as moderate to low certainty.

(For more detail see p.1 of the evidence evaluation at Appendix R)

Summary of main results

The evidence provides moderate to low certainty that practising yoga is more effective than not practising yoga for some conditions considered critical or important in this evaluation. The evidence also provides moderate to low certainty that yoga has little (to no) benefit for some of the conditions assessed in this evaluation. There are some conditions and outcomes assessed in this evaluation where the effect of yoga is uncertain (very low certainty) or unknown.

The evidence provides moderate certainty that yoga probably:

- reduces systolic (15 RCTs, 1230 participants) and diastolic (13 RCTs, 1090 participants) blood pressure in people with hypertensive heart disease,
- improves emotional wellbeing in people with anxiety (2 RCTs, 131 participants),
- reduces symptoms of depression in people with depression (10 RCTs, 434 participants),
- improves health-related quality of life in people with low back pain (4 RCTs, 590 participants).

The evidence provides low certainty that yoga may:

- improve quality of life (3 RCTs, 172 participants), perceived stress (6 RCTs, 401 participants) and emotional wellbeing (2 RCTs, 159 participants) in people with elevated perceived stress,
- reduce pain intensity (10 RCTs, 1101 participants) and pain medication use (5 RCTs, 465 participants) in people with low back pain,
- reduce stress (1 RCT, 101 participants) in people with anxiety,
- improve quality of life (1 RCT, 56 participants), stress (1 RCT, 50 participants), life satisfaction (1 RCT, 40 participants) and self-compassion (1 RCT, 46 participants) in people with depression,
- improve emotional wellbeing (1 RCT, 65 participants), reduce headache frequency (4 RCTs, 590 participants) and reduce the number of acute “rescue” pills taken in addition to preventative medication (1 RCT, 65 participants) in people with headache disorders,
- improve health-related quality of life (6 RCTs, 826 participants) in people with asthma,
- improve health-related quality of life (1 RCT, 53 participants), improve pain acceptance (1 RCT, 53 participants) and reduce fatigue (1 RCT, 53 participants) in people with fibromyalgia,
- improve pain (1 RCT, 20 participants) and reduce fear of movement because of pain (1 RCT, 20 participants) in people with mechanical neck pain.

The evidence provides low certainty that yoga may have little (to no) effect on:

- life satisfaction (2 RCTs, 178 participants), fatigue (1 RCT, 37 participants) or sleep quality (3 RCTs, 179 participants) in people with elevated perceived stress,
- physical (5 RCTs, 710 participants) or emotional functioning (4 RCTs, 642 participants) in people with low back pain,
- health-related quality of life (1 RCT, 56 participants), psychological distress (1 RCT, 50 participants), emotional function (1 RCT, 50 participants) or perceived stress (2 RCTs, 72 participants) in people with depression,
- health-related quality of life (3 RCTs, 139 participants), emotional functioning (2 RCTs, 111 participants) or mobility (2 RCTs, 92 participants) in people with chronic pain conditions,
- physical functioning, pain, stiffness, tenderness or morning tiredness in people with fibromyalgia (1 RCT, 53 participants),
- perceived stress (3 RCTs, 245 participants) or health-related quality of life (2 RCT, 221 participants) in people with hypertensive heart disease,
- pulmonary function (6 RCTs, 680 participants) in people with asthma,
- improving pain or physical functioning in people with frozen shoulder (1 RCT, 72 participants).

(For more detail see pp.2-3 of the evidence evaluation at Appendix R)

Implications for future research

In conducting the evidence evaluations the independent reviewers gave regard to the gaps in the available evidence base. This included consideration of how the quality and targeting of research could be improved to support further consideration of clinical effectiveness.

Future research on the effectiveness of the reviewed therapies could be improved by ensuring the choice of comparators facilitates synthesis; either by including inactive controls (e.g. usual care delivered to both groups, sham interventions) or standardised active comparators. In designing trials, attention should be given to the power of the trial, adequate description of all trial arms, implementing study design features that minimise the risk of bias, measuring outcomes that are well established and patient-relevant (e.g. as identified in consensus-based core outcome sets), reporting all measured outcomes, and ensuring trials are registered and reported in accordance with relevant reporting guidelines.

More detail is available in each of the therapy evidence evaluations in appendices B to R.

Glossary

Bias

A bias is a systematic deviation of a measurement from the 'true' value, leading to either an over- or underestimation of the treatment effect. Bias can originate from many different sources, including allocation of patients, and the measurement, interpretation, publication and review of data.

Blinding

Blinding, or masking, is the process used in epidemiological studies and clinical trials in which the observers and the subjects have no knowledge as to which treatment groups subjects are assigned. It is undertaken to minimise bias occurring in patient response and outcome measurement. In single-blind studies only the subjects are blind to their allocations, while in double-blind studies, both observers and subjects are ignorant of the treatment allocations.

Clinically important effect (see also 'statistically significant effect')

A clinically important effect is one which improves the clinical outlook for the patient. It is important to note that it is possible for an effect to be statistically significant, yet have little clinical significance for a patient.

Certainty (GRADE terminology)

The GRADE approach specifies four levels of the certainty for a body of evidence for a given outcome: high, moderate, low and very low. GRADE assessments of certainty are determined through consideration of five domains: risk of bias, inconsistency, indirectness, imprecision and publication bias. For evidence from non-randomized studies and rarely randomized studies, assessments can then be upgraded through consideration of three further domains⁵.

Descriptions of the four levels are provided below:

- High certainty: the authors of the evaluation are very confident that the true effect lies close to that of the estimate of the effect.
- Moderate certainty: the authors of the evaluation are moderately confident in the effect estimate: the true effect is probably close to the estimate of the effect, but there is a possibility that it is substantially different.
- Low certainty: the confidence the authors of the evaluation have in the effect estimate is limited: the true effect may be substantially different from the estimate of the effect.
- Very low certainty: the authors of the evaluation have very little confidence in the estimate: the true effect is likely to be markedly different from the estimated effect. Confidence in the result is too limited to provide a meaningful interpretation.

⁵ Higgins JPT, Thomas J, Chandler J, Cumpston M, Li T, Page MJ, Welch VA (editors). *Cochrane Handbook for Systematic Reviews of Interventions* version 6.5 (updated August 2024). Cochrane, 2024. Available from www.training.cochrane.org/handbook.

Control

A scientific control is part of an experiment or study designed to minimise the effects of variables other than the single independent variable. This increases the reliability of the results, often through a comparison between control measurements and other measurements. For example, in most studies to test whether a treatment works there would be an intervention group who did get the treatment and a control group who did not.

Excluded natural therapies

Sixteen natural therapies were excluded from eligibility for private health insurance benefits on 1 April 2019. The therapies excluded are:

- Alexander technique;
- aromatherapy;
- Bowen therapy;
- Buteyko;
- Feldenkrais;
- Western herbalism;
- homeopathy;
- iridology;
- kinesiology;
- naturopathy;
- Pilates;
- reflexology;
- Rolfing;
- shiatsu;
- tai chi; and
- yoga.

GRADE (Grading of Recommendations Assessment, Development and Evaluation)

GRADE is the most widely used approach for summarising confidence in effects of interventions by outcome across studies. The GRADE approach to assessing the certainty of the evidence defines and operationalizes a rating process that helps separate outcomes into those that are critical, important or not important for decision making⁶. The certainty is then considered for each outcome based on risk of bias, inconsistency, indirectness, imprecision and publication bias.

Meta-analysis

A statistical analysis that enables the results from 2 or more separate, primary studies to be combined to derive an overall estimate of the pooled effect.

⁶ Higgins JPT, Thomas J, Chandler J, Cumpston M, Li T, Page MJ, Welch VA (editors). *Cochrane Handbook for Systematic Reviews of Interventions* version 6.5 (updated August 2024). Cochrane, 2024. Available from www.training.cochrane.org/handbook.

Non-randomised studies of intervention

Any quantitative study estimating the effectiveness of an intervention (harm or benefit) that does not use randomisation to allocate units (individuals or clusters of individuals) to intervention groups.

Null hypothesis

The hypothesis that states that there is no difference between 2 or more interventions or 2 or more groups (for example, males and females). The null hypothesis states that the results observed in a study (for example, the apparent beneficial effects of the intervention) are no different from what might have occurred because of the operation of chance alone.

Overview

Overviews are reviews that are designed to compile evidence from multiple systematic reviews into one document. They utilise a clearly formulated question and use systematic and explicit methods to identify, select, and critically appraise relevant systematic reviews, and to collect and analyse data from included systematic reviews.

Overviews usually take one of two forms:

1. Using systematic reviews to find primary studies with risk of bias (etc.) information and then synthesising the relevant primary study results.
2. Choosing the “best” systematic review to fit the Population, Intervention, Comparison, and Outcome (PICO) and presenting results from that without reanalysis.

Placebo control (in research studies, see also ‘placebo effect’ and sham control)

An inactive control that looks identical to the intervention but is designed to have no therapeutic effect is compared with the intervention being tested. Placebo as a term is more often used for things like pills or liquids, whereas sham is more often used for physical treatments, however the two are sometimes used interchangeably. A placebo control is the most rigorous comparator by which to assess the efficacy of an intervention, as it controls for the ‘placebo effect’.

Placebo effect

The effect observed whereby people who receive an inactive ‘placebo’ treatment (believing the treatment to be efficacious) will experience a perceived or actual improvement in health outcomes.

Publication bias

Bias caused by the results of a trial being more likely to be published if a statistically significant benefit of treatment is found.

P-value

The probability (obtained from a statistical test) that the null hypothesis (that there is no treatment effect) is incorrectly rejected. A p-value of <0.05 is the most commonly accepted point at which the null hypothesis is rejected, and the difference is considered to be statistically significant as it relates to there being a 95% probability the difference did not occur by chance. Values of $p < 0.01$ (99%) or $p < 0.001$ (99.9%) are also sometimes used.

PROSPERO

An international database of prospectively registered systematic reviews in health and social care, welfare, public health, education, crime, justice, and international development, where there is a health-related outcome. See <https://www.crd.york.ac.uk/prospERO/>

Randomised control trial (RCT)

An experimental comparison study in which participants are allocated to treatment/intervention or control/placebo groups using a random mechanism, such as coin toss, random number table, or computer-generated random numbers. Participants have an equal chance of being allocated to an intervention or control group, and therefore allocation bias is limited.

Sham treatment/control (see also Placebo)

A treatment or procedure that is performed as a control, which is similar to the treatment or intervention under investigation or another known treatment, but omits a therapeutic element of that treatment or intervention. Sham controls are used to blind participants to which group they are in (treatment or control) and are therefore useful for interventions which have subjective outcomes (e.g. symptoms) where placebo effects might be expected.

Placebo as a term is more often used for things like pills or liquids, whereas sham is more often used for physical treatments such as pressure on points considered inactive in shiatsu or taping areas not considered relevant in physiotherapy, however the two are sometimes used interchangeably.

Statistically significant effect (see also 'clinically important effect')

An outcome for which the difference between the intervention and control groups is statistically significant; that is, the p-value is less than 0.05, 0.01 or 0.001 depending on what was set as the threshold before starting the analysis. A statistically significant effect is not necessarily clinically important.

Systematic review

A review (evaluation) of a clearly formulated question that uses systematic and explicit methods to identify, select, and critically appraise relevant research, and to collect and analyse data from the studies that are included in the review. Statistical methods (meta-analysis) may or may not be used to analyse and summarise the results of the included studies.

Acronyms and abbreviations

CABG – Coronary Artery Bypass Graft

COPD – Chronic Obstructive Pulmonary Disease

CoQ10 – Coenzyme Q10

CMO – Chief Medical Officer

GORD – Gastro-Oesophageal Reflux Disease

HR-QoL – Health-Related Quality of Life

HTLV – Human T-Lymphotropic Virus

IBS – Irritable Bowel Syndrome

LDL – Low-Density Lipoprotein

NHMRC – National Health and Medical Research Council

NRSI – Non-randomised studies of intervention

NTRAC – Natural Therapies Review Advisory Committee

NTREAP – Natural Therapies Review Expert Advisory Panel

NTWC – Natural Therapies Working Committee

PCOS – Polycystic Ovary Syndrome

PMS – Premenstrual Syndrome

PROSPERO – The International Prospective Register of Systematic Reviews (see Glossary)

RCT – Randomised control trial

WHM – Western Herbal Medicine

Attachments

Attachment A – Natural Therapies Review Expert Advisory Panel membership

Professor Michael Kidd AO (Chair)

Professor of Global Primary Care and Future Health Systems at The University of New South Wales and The University of Oxford, and former Deputy Chief Medical Officer for the Australian Government and medical adviser to the Minister for Health and the Department of Health and Aged Care.

Professor Emeritus Alan Bensoussan

Foundation Director of the NICM Health Research Institute at the Western Sydney University (2008-2020). Ministerial appointments to several state, Commonwealth and international committees including in relation to complementary, herbal and traditional medicines.

Ms Ainslie Cahill AM

Consumer representation on a wide range of Commonwealth, university and industry committees in relation to health, including clinical trials. Previously CEO of Arthritis Australia where her role included overseeing assessment of grants applications including for natural therapies.

Ms Leanne Davis

Yoga practitioner and teacher. Australian Health Practitioner Regulation Agency registered acupuncturist. President of Yoga Australia and involved in the governance of a number of professional and educational Yoga organisations in New Zealand and the United States. Bachelor degree and post graduate diplomas in a range of health therapies including Yoga, Chinese Medicine/Herbalism, Acupressure and Shiatsu.

Dr Michael Gleeson

Background in Physiotherapy (Bachelor App. Sc) and qualified Teacher of the Alexander Technique. Masters in Special Education (Sensory Disability) and PhD (Public Health). Previous Project Manager roles for the University of Sydney and NSW Health. Currently Senior Orientation and Mobility Instructor for Guide Dogs SA/NT across the Northern Territory.

Ms Tess Graham

Physiotherapy and Buteyko Breathing Method practitioner. Bachelor of Science (Anatomy) and Diplomas in Physiotherapy and Buteyko Breathing Method. Invited speaker at medical, dental and health association conferences in Australia, United States, United Kingdom, Taiwan and France.

Professor Catherine Hill

Clinical rheumatologist and epidemiologist with research expertise in osteoarthritis, randomised clinical trials, vasculitis and population epidemiology. Chief Investigator of the North West Adelaide Health Study and involvement in NHMRC funded projects studying the effects of fish and krill oil supplementation in knee osteoarthritis. She is also a former member of the Pharmaceutical Benefits Advisory Committee.

Dr Penelope Latey

Pilates practitioner and teacher trainer. Clinical Senior Lecturer and Research Supervisor, Discipline of Physiotherapy, Faculty of Health Sciences, University of Sydney. PhD (Measuring and managing foot muscle weakness) and MSc (Research) in relation to Pilates.

Dr David Levy

PhD Faculty of Medicine and Masters Health Science Education, University of Sydney. Professional Homeopath.

Professor Tracy Merlin (member until 30 December 2020)

Managing Director, Adelaide Health Technology Assessment and Interim Head of School of Public Health, University of Adelaide. Vice Chair, International Network of Agencies for Health Technology Assessment (INAHTA) and previously co-chair INAHTA Quality Assurance Group.

Ms Skye Newton (member from 1 May 2021)

Systematic review and health technology assessment methodologist at Adelaide Health Technology Assessment (AHTA), University of Adelaide.

Associate Professor Byeongsang Oh

Integrative medicine consultant at Royal North Shore Hospital (RNSH) and Mater Hospital. Senior Principle Research Fellow, Northern Sydney Cancer Centre, RNSH including current research related to Tai Chi and Qigong. Clinical Associate Professor, Sydney Medical School, Sydney University. PhD in Medicine (Integrative medicine). CEO of International Medical Tai Chi and Qigong Association.

Mr John Stubbs AM

Consumer representation on a range of Commonwealth and state government, medical and research industry committees in relation to health, including clinical trials, medications and homeopathy.

Professor Jon Wardle

Adjunct Professor of Public Health, University of Technology Sydney. Professor of Public Health and Foundation Director, National Centre for Naturopathic Medicine, Southern Cross University. Visiting positions at School of Medicine, University of Washington and Nuffield Department of Primary Health Care, University of Oxford. Practitioner background in naturopathy and nursing and postgraduate training in public health and law.

Attachment B – Natural Therapies Review Expert Advisory Panel Terms of Reference

Terms of Reference

Review of the Australian Government Rebate on Private Health Insurance for Natural Therapies 2019-20

Natural Therapies Review Expert Advisory Panel

As part of the 'Review of the Australian Government Rebate on Private Health Insurance for Natural Therapies 2019-20' (Natural Therapies Review 2019-20) the Deputy Chief Medical Officer, Professor Michael Kidd, will provide a final report to the Australian Government. The report will provide recommendations on whether to re-include any of the 16 excluded natural therapies as eligible for benefits under complying private health insurance products.

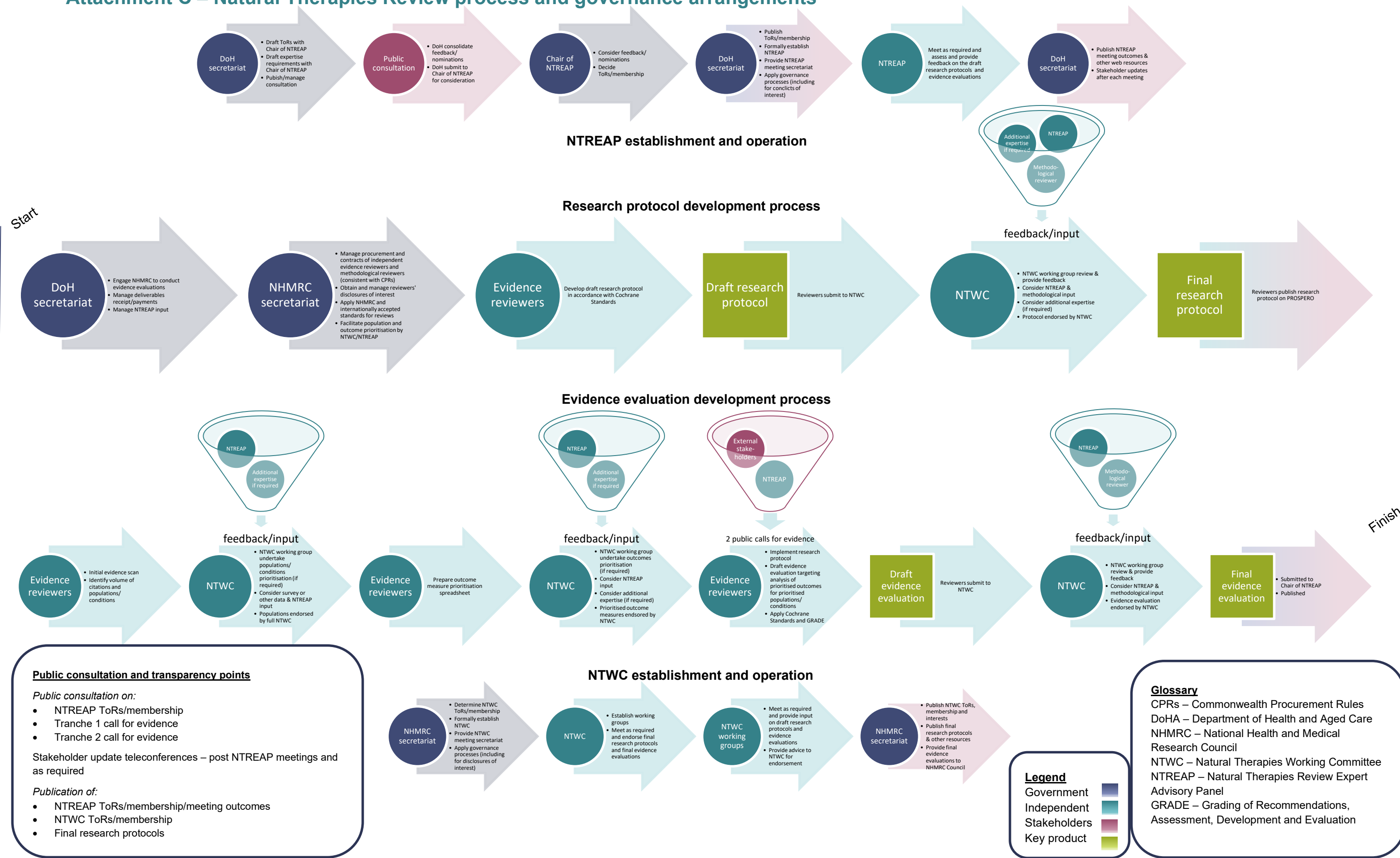
For the purposes of the Natural Therapies Review 2019-20 excluded natural therapies are the following 16 therapies:

- a) Alexander technique;
- b) aromatherapy;
- c) Bowen therapy;
- d) Buteyko;
- e) Feldenkrais;
- f) Western herbalism;
- g) homeopathy;
- h) iridology;
- i) kinesiology;
- j) naturopathy;
- k) Pilates;
- l) reflexology;
- m) Rolfing;
- n) shiatsu;
- o) tai chi; and
- p) yoga.

For the 16 excluded natural therapies the Natural Therapies Review Expert Advisory Panel will support the Natural Therapies Review 2019-20 by providing advice to the Deputy Chief Medical Officer, Professor Michael Kidd, on:

- any additional evidence of their clinical effectiveness published since the 2014-15 review or high quality evidence not included in the 2014-15 review to be assessed by the National Health and Medical Research Council (NHMRC) including:
 - any evidence identified by Panel members; and
 - any other evidence submitted to Panel members; and
- the reports on the evidence evaluations to be provided by NHMRC in two tranches of natural therapies:
 - the first tranche will examine naturopathy, western herbalism, yoga, Tai Chi, Pilates, Rolfing and Shiatsu; and
 - the second tranche will examine Alexander technique, aromatherapy, Bowen therapy, Buteyko, Feldenkrais, homeopathy, iridology, kinesiology and reflexology.

Attachment C – Natural Therapies Review process and governance arrangements



Attachment D – Research protocols for each therapy on PROSPERO

Alexander Technique

<https://www.crd.york.ac.uk/PROSPERO/view/CRD42023409494>

Aromatherapy

<https://www.crd.york.ac.uk/PROSPERO/view/CRD42021268244>

Bowen Therapy

<https://www.crd.york.ac.uk/PROSPERO/view/CRD42023467144>

Buteyko

<https://www.crd.york.ac.uk/PROSPERO/view/CRD42023466774>

Feldenkrais

<https://www.crd.york.ac.uk/PROSPERO/view/CRD42023467191>

Homeopathy

<https://www.crd.york.ac.uk/PROSPERO/view/CRD42022346433>

Iridology

<https://www.crd.york.ac.uk/PROSPERO/view/CRD42022323024>

Kinesiology

<https://www.crd.york.ac.uk/PROSPERO/view/CRD42024528900>

Naturopathy Review A – Whole system, multi-component or single component interventions

<https://www.crd.york.ac.uk/PROSPERO/view/CRD42021266381>

Naturopathy Review B – Selected nutritional supplements

<https://www.crd.york.ac.uk/PROSPERO/view/CRD42023410906>

Pilates

<https://www.crd.york.ac.uk/PROSPERO/view/CRD42020191918>

Reflexology

<https://www.crd.york.ac.uk/PROSPERO/view/CRD42023394291>

Rolfing

<https://www.crd.york.ac.uk/PROSPERO/view/CRD42020191251>

Shiatsu and acupressure

<https://www.crd.york.ac.uk/PROSPERO/view/CRD42021243311>

Tai Chi

<https://www.crd.york.ac.uk/PROSPERO/view/CRD42020200130>

Western herbal medicine

<https://www.crd.york.ac.uk/PROSPERO/view/CRD42021243337>

Yoga

<https://www.crd.york.ac.uk/PROSPERO/view/CRD42020200084>

Appendices

Appendix A – 2019-2024 Review of the Australian Government Rebate on Private Health Insurance for Natural Therapies: NHMRC Process Report

Appendix B – Alexander Technique evidence evaluation

Appendix C – Aromatherapy evidence evaluation

Appendix D – Bowen Therapy evidence evaluation

Appendix E – Buteyko evidence evaluation

Appendix F – Feldenkrais evidence evaluation

Appendix G – Homeopathy evidence evaluation

Appendix H – Iridology evidence evaluation

Appendix I – Kinesiology evidence evaluation

Appendix J – Naturopathy Review A evidence evaluation

Appendix K – Naturopathy Review B evidence evaluation

Appendix L – Pilates evidence evaluation

Appendix M – Reflexology evidence evaluation

Appendix N – Rolfing evidence evaluation

Appendix O – Shiatsu evidence evaluation

Appendix P – Tai Chi evidence evaluation

Appendix Q – Western Herbal Medicine evidence evaluation

Appendix R – Yoga evidence evaluation

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All information in this publication is correct as of March 2025

