

Theoretical Framework of Placebo Effects in Osteopathic Practice

<p>Definition</p>	<p>Placebo effects are the psycho-neuro-bio-behavioural effects resulting from a patient's perception, interpretation and response to a therapeutic (psychosocial and environmental) context.</p>
<p>Treatment elements: Defining, Incidental and Preliminary</p>	<p>All treatments have defining, incidental, and preliminary elements which interact to influence treatment outcome (Caspi and Bootzin, 2002).</p> <p><u>Defining elements</u> are the interventions that are derived from the theoretical framework guiding the therapy and are intentionally applied.</p> <p><u>Incidental elements</u> are the variables that accompany the defining elements of the therapy, and are necessary but not sufficient components of the specific kind of therapy.</p> <p><u>Preliminary elements</u> are those that precede the intervention such as the process of making an appointment.</p> <p>The elements of therapy that are considered defining, incidental, or preliminary is dependent on the theoretical paradigm (e.g. biomedical vs. osteopathic), context (e.g. research vs. practice), and situation (e.g. the nature of the illness/condition) and can be re-classified as necessary.</p> <p>Placebo effects are typically viewed as being caused by 'incidental' elements, but can be caused by 'defining' elements depending on the therapeutic framework, context, and situation.</p>
<p>Determinants</p>	<p>Placebo effects are determined by environmental factors, individual patient and practitioner factors, the patient-practitioner interaction and communication, the process of providing a framework, and the nature of the illness.</p> <p>Central to the formation of placebo effects is the intersection between the perceptions of the patient, the development of trust, and pre-existing expectations, hope, and beliefs.</p> <p>Placebos ('inert' treatments) and deception are not necessary for placebo effects to occur. Placebo effects can subsequently be intentionally derived in an ethical manner.</p>
<p>Mechanisms</p>	<p>Placebo effects are an observation and manifestation of inherent adaptability and resiliency mechanisms.</p> <p>Specific mechanisms underlying placebo effects include:</p> <ol style="list-style-type: none"> a) Activation of endogenous opioid and dopamine networks b) Psychoneuroimmunological processes c) Classical conditioning processes d) Specific modulation of autonomic nervous system activity

Effect on healing processes	<p>Placebo effects are most likely to be observed in subjective measures of health, but can also be observed in neurological, functional and biochemical outcomes.</p> <p>Placebo effects have the greatest influence on healing processes occurring on psychological/emotional levels (i.e., subjective experiences of illness), but can also influence physical manifestations of healing processes through alterations in function (physiology).</p>
Evidence-based method promoting health	<p>Placebo effect mechanisms and determinants are supported by a strong evidence base that can be applied ethically in osteopathic practice as an adjunct tool to potentiate inherent health-restorative processes.</p>
Defining element of osteopathic practice	<p>Intentional use of these (evidence based) tools in clinical practice argues for classification of these elements of treatment as one of the defining elements of osteopathic practice. (Figure 1)</p>

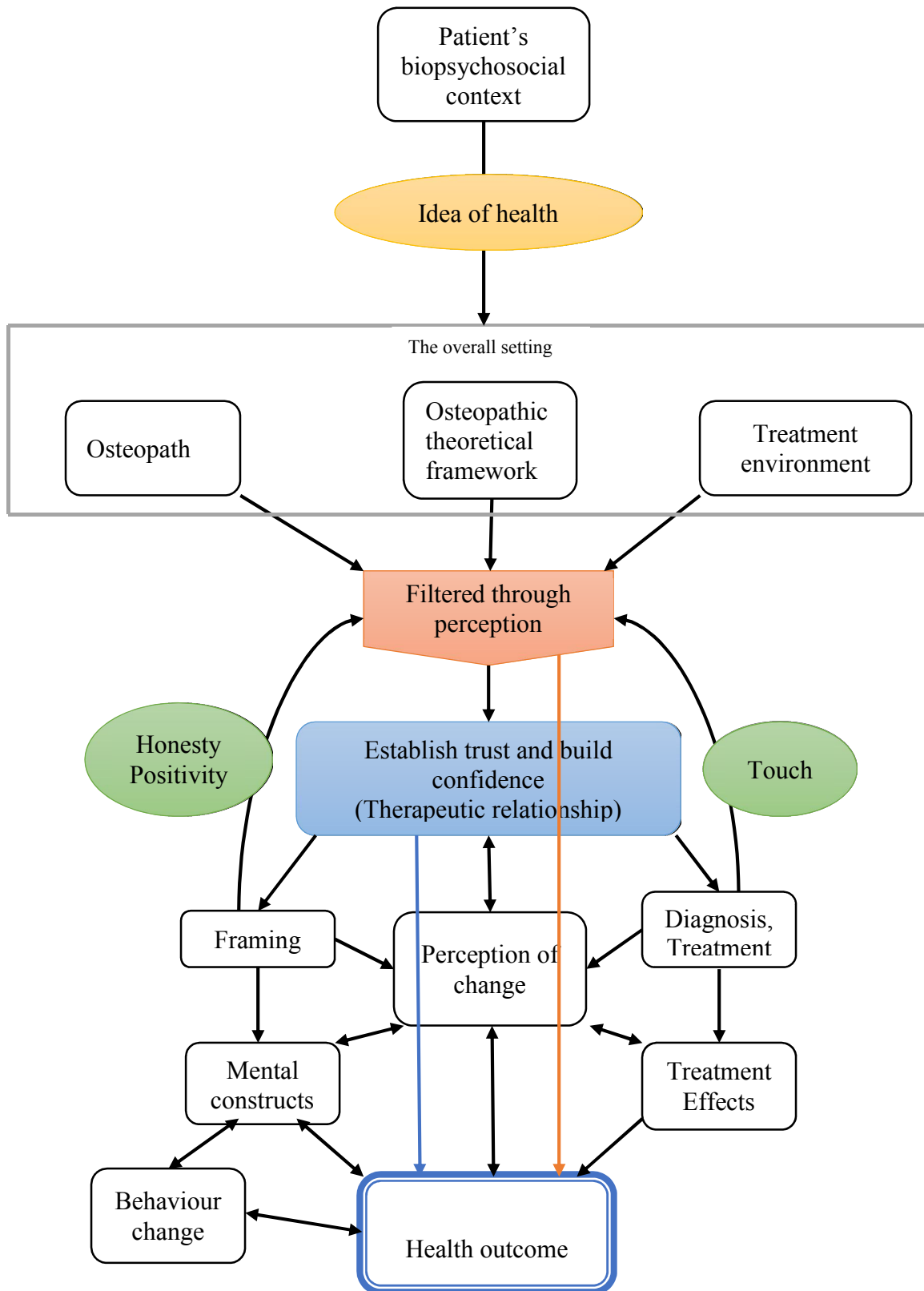


Figure 1: Process of Health Promotion in Osteopathic Practice. Generated from content from informant interviews.

Practical guidelines for engaging ‘placebo’ mechanisms in Osteopathic practice

1. Build trusting partnerships

What it does

- enables osteopathic diagnosis and treatment to proceed

- enables patients to share sensitive information that may be influencing health

- amplifies placebo effect mechanisms (i.e. - enhances the neurophysiological effect of providing a framework for understanding on the patient’s hope, beliefs, and expectations)

What it is

▪ Partnership = patient has an active role

How to do it

- Build partnerships by:
 - Providing information and encouraging questions
 - Working towards a shared understanding of the cause and nature of the illness
 - Sharing in decisions regarding treatment options
 - Empowering the patient with strategies and tools for self-care
- Build trust by:
 - Adapting (assess patient’s affective state and needs → interpret what kind of interaction would be beneficial → adapt behaviour accordingly)
 - Honesty
 - Confidence
 - Competence
 - Demonstrating knowledge of osteopathy and the human body

Key behaviours: listening, acknowledging, adapting, communicating effectively

2. Utilize strategies of effective communication

What it does

- central role in forming trusting partnerships

- role in providing a framework for understanding

- helps to identify patient factors in placebo responding (personality, beliefs, values)

What it is

- Communication = content + style (process) of conveying information
- Verbal and non-verbal (behavioural, tactile) dimensions

How to do it:

- Ask appropriate questions to gain an understanding of the whole person
- Utilize active listening strategies to convey interest and understanding
- Encourage active participation (partnership, enablement)
- Frame information positively and communicate clearly in a way the patient can understand
- Use an empathetic and emotionally supportive style
- Figure 2

3. Provide a framework	
<p><u>What it does</u></p> <ul style="list-style-type: none"> - directs behaviour - hones focus - shapes the patient's expectations, hopes and beliefs → neurophysiological and behavioural effects - open-ended framing + reevaluation preserves hope, encourages health-promoting behaviours, and provides the opportunity to redirect hope/expectations in the future - positive guarantees of outcome → future nocebo effects if expectations are not met - negative guarantees of outcome → nocebo effects and diminishes health promoting behaviours 	<p><u>What it is:</u></p> <ul style="list-style-type: none"> ▪ Framing is embedded in the process of educating patients about: <ul style="list-style-type: none"> ○ The nature of osteopathic assessment and treatment ○ Assessment findings and/or diagnosis ○ The rationale for the treatment plan ○ The expected outcomes of treatment ○ How to interpret the meaning of body sensations before/during/after treatment ▪ Honest, positive & realistic <hr/> <p><u>How to do it:</u></p> <ul style="list-style-type: none"> ▪ DO: <ul style="list-style-type: none"> ○ combine positive open-ended expectations of prognoses/outcomes with process of re-evaluation ○ use re-evaluation to frame improvements → bolster hope and trust ○ use framing to redirect hope/expectations if treatment is ineffective or if progress plateaus (refer to other modality and/or modify plan) ▪ DON'T: <ul style="list-style-type: none"> ○ provide positive OR negative <i>guarantees</i> of outcome
4. Create a unique and comfortable environment	
<p><u>What it does:</u></p> <ul style="list-style-type: none"> - minimizes cues that elicit negative conditioned responses acquired from other settings (eg: conditioned nausea from chemotherapy provided in hospital settings) - patient's perceptions of environmental factors can have cognitive and affective (neurophysiological) responses 	<p><u>What it is:</u></p> <ul style="list-style-type: none"> ▪ Environment = treatment room → clinic/hospital → geographical location/neighbourhood <hr/> <p><u>How to do it:</u></p> <ul style="list-style-type: none"> ▪ Create an environment that is clean and professional but not overly 'sterile' or impersonal ▪ Create environments that have unique: <ul style="list-style-type: none"> ○ Objects in the treatment room (plants, art, furniture) ○ Colour of treatment room walls ○ Views of nature/outside environment ▪ Promote a feeling of warmth, positivity, and comfort in the environment by: <ul style="list-style-type: none"> ○ Ensuring interactions with other individuals in the treatment setting (eg: administrative staff) are positive and equitable ○ Maintaining passion about your work as an osteopath

5. Recognize placebo-sensitive conditions and individuals

What it does

- informs practitioner adaptation to each individual

- enables practitioner to select individualized placebo determinants to amplify placebo effect mechanisms

What it is

▪ Placebo sensitive conditions & functions:

- Pain
- Parkinson's Disease
- irritable bowel syndrome
- cardiovascular diseases
- depression
- asthma
- psoriasis
- common cold
- autonomic regulation of blood pressure, airway resistance, and gastric activity

▪ Individual placebo sensitivity is related to:

- disposition-situation interactions
 - optimism + positively framed rationale conveyed with certainty (but not when outcome is framed as 'uncertain')
 - agreeableness or reclusiveness + warm, supportive patient-practitioner interaction (but not 'limited' interactions)
- personality traits with similar neurobiological underpinnings as placebo effects
 - stress resiliency, interpersonal function, prosocial motivation, novelty seeking, behavioural drive, and fun seeking
- concordance between intrinsic values and the therapeutic ritual/rationale
 - spirituality when the treatment is contextualized as a spiritual therapy

How to do it:

- Gain familiarity with the patient's belief systems, values, and dispositional tendencies by:
 - Utilizing methods of effective communication (Figure 2)
 - Interacting from a place of neutrality and non-judgement

Maintain honesty, authenticity and genuineness while slightly altering content and style of communication to facilitate dispositional-situational interactions

6. Engage in personal development and self-care

What it does

- creates positive psychosocial contexts for patients (biopsychosocial health in a practitioner's broader context translates into clinical encounters)

- patient's perceptions of subtle cues from the practitioner can make significant differences in placebo effects

- practitioner's beliefs will influence placebo mechanisms

What it is

- Personal rituals and efforts to maintain/promote your own biopsychosocial health
- Psychosocial dimensions involve:
 - Value placed on relationships
 - Enjoyment from interpersonal interactions
 - Love, compassion, empathy, humility, vulnerability, emotional intelligence, personality, outlook on life, general disposition → enters the patient-practitioner interaction
 - Authenticity, genuineness, honesty: if practitioners clinical context = broader context

How to do it

- Take care of yourself!
- There are many ways to promote your own psychosocial health, find what works for you.
- Promote biological dimensions by:
 - Maintaining adequate nutrition, rest, and exercise
 - Avoiding deleterious habits such as smoking and excessive drinking,
 - Reducing your own somatic dysfunction

7. Recognize the role of ritual and meaning

What it does

- engagement with therapeutic rituals outside the treatment setting may repeatedly engage placebo mechanisms

- rituals concordant with a patient's intrinsic values may promote adherence to the treatment plan and may have positive psychoneuroimmunological effects

What it is:

- Treatment ritual includes:
 - Characteristics/processes of treatment
 - Therapeutic relationships
 - Environments
 - Frameworks
- The patient's perceptions and interpretations are the filtering and organizing systems that influence physiological and behavioural responses

How to do it:

- Highlight aspects of treatment that are concordant with a patient's values/beliefs
- Provide suggestions of self-care rituals
 - Self-care rituals with recognized health benefits have placebo effects embedded within them

8. Maintain honesty and ethics

- Duty for clinicians to provide ethical and honest care
- Concealment or deceit is unacceptable clinician behaviour, and is not necessary for placebo effects to occur
- Placebo mechanisms are engaged by honest, transparent, and ethical approaches via:
 - o Effective trusting relationships
 - o The process of honest framing
 - o Creation of positive treatment environments
 - o The treatment characteristics and rituals that hold positive meanings for a patient
 - o The biopsychosocial health and beliefs of the practitioner

9. Recognize the potential and know the limits

- These guidelines have the potential to influence subjective, neurological, functional, and biochemical measures of health
- These guidelines are not a substitute for a proven therapy, rather they are a complement to existing treatments

10. Use these strategies as an adjunct tool in the provision of comprehensive patient care

- These guidelines outline a therapeutic method of potentiating a patient's inherent self-restorative processes
- Apply these guidelines within the context of providing treatment informed by established osteopathic principles of practice

Ask questions to gain an understanding of the whole person, addressing:

- primary complaint - allowing patient to discuss symptoms fully
- general health and other symptoms and concerns
- the patient's understanding of the cause/effect/meaning of their symptoms on their function and their health
- the patient's expectations of treatment

Actively listen and paraphrase by:

- pausing to give time for the patient to speak
- allowing the patient to 'tell their story'
- paraphrase to communicate understanding and check accuracy

Enable the patient and encourage active participation by:

- encouraging questions
- working towards a mutual agreement regarding cause and nature of the illness
- providing verbal and written information
- sharing in decision making about treatment options

Provide emotional support through:

- reassurance
- warmth
- empathy
- acceptance, non-judgement, validation
- demonstrating interest
- conveying care, compassion, and confidence
- appropriate use of humour

Utilize positive non-verbal communication through:

- eye contact
- orienting body to face the patient
- appropriate use of touch (conveyed confidently)
- maintaining presence
- interacting from a place of love, compassion, humility, and vulnerability

Provide information (a framework) about:

- the nature of osteopathic assessment and treatment
- the findings of the assessment and/or diagnosis and prognosis
- the rationale for the treatment plan
- the meaning of body signs and symptoms
- expectations of treatment outcomes

Figure 2: Strategies of Effective Communication. Adapted from Derksen et al., 2013; Griffin et al., 2004; Hojat et al., 2011; Kaptchuk, Kelley, Conboy, et al., 2008; Rakel et al., 2011; Stewart, 1995; and content from informant interviews.

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