

The benefits of contact with nature for mental health and well-being

Townsend M and Weerasuriya R. 2010, [*Beyond Blue to Green: The benefits of contact with nature for mental health and well-being*](#), Beyond Blue Limited, Melbourne, Australia.

Overview of report

This is a comprehensive review of research studies about how contact with nature enhances health and well-being. The data is thematically focused, and there are special sections on children and youth, elderly people, migrants and other disadvantaged identities.

The review also provides dedicated evidence of the benefits of interacting with nature in relation to:

- childhood development, people in working environments, pet ownership and animal assistant interventions.
- types of therapeutic landscape: local parks, forests, woodlands and gardens.
- types of therapeutic approaches that use nature contact: ecotherapy, adventure and wilderness therapy, therapeutic gardening, horticulture therapy, green exercise, tree climbing, care farming, school ground greening, and outdoor activities (such as walking, hiking and contact with animals).

The report provides high level findings, based on the available evidence and also theories that have been proposed to explain why nature contact is so good for us.

Methods and Scope

The paper reviewed:

- Existing Australian and international literature on the links between mental health and well-being and contact with nature, especially through green spaces.
- A range of sources including relevant electronic databases, peer-reviewed journals and grey literature.
- All accessible and relevant post-2000 articles, also relevant older articles.

Analysis: Assertions/generalisations were deemed true (strong evidence for) or with promise (weaker evidence for) based on the amount for data in three categories: anecdotal, theoretical and empirical.

History

The idea that natural landscapes, with vegetation and water, reduce stress and offer other benefits, including for patients, dates back to ancient China, Greece, and Persia. The earliest hospitals in Europe were situated in monasteries which typically included cloistered gardens, providing "relief to the ill" (Velarde et al. 2007, p. 200).



The i) medicalisation of mental illness, ii) prioritisation of technical interventions, and 111) decline in recognition of nature's healing role has been a great loss for healing, which has interlinked aspects that are both physical and psychological.

Research Findings

Generalising from the literature, the research demonstrates (there is strong evidence) that the following statements are true:

- There are clear physiological effects that occur when humans encounter, observe or otherwise positively interact with animals, plants, landscapes or wilderness;
- Natural environments, such as parks, foster recovery from mental fatigue and are restorative;
- There are established methods of nature- based therapy (including wilderness, horticultural and animal-assisted therapy among others) that have success healing patients who previously have not responded to treatment;
- When given a choice, the majority of people prefer natural environments (particularly those with water features, large old trees, intact vegetation or minimal human influence) to urban ones, regardless of nationality or culture;
- The majority of places that people consider favourite or restorative are natural places, and being in these places is recuperative;
- People have a more positive outlook on life and higher life satisfaction when in proximity to nature (particularly in urban areas);
- The majority of health problems society will face, now and in the future, are likely to be stress-related illnesses, mental health problems and cardiovascular health problems;
- Exposure to natural environments, such as parks, enhances the ability to cope with and recover from stress, cope with subsequent stress, and recover from illness and injury;
- Observing nature can restore concentration and improve productivity;
- Having nature in close proximity (e.g. urban or national parks), or just knowing it exists, is important to people regardless of whether they are regular 'users' of it.

The research demonstrates *with promise* (less empirical evidence) the following assertions:

- People have an innate affiliation with nature that enhances health, and humans rely on nature intellectually, emotionally, physically and spiritually;
- There is likely a genetic basis to human affiliation with, and attraction for, nature;
- Separation from nature via modern living is detrimental to human development, health and wellbeing;
- Regular contact with nature, such as provided by parks, is required for mental health;
- There are psychological and physiological benefits to health from the act of nurturing living things (including plants, animals, and humans);
- Nurturing is an essential part of human development, and lack of opportunities to nurture may be detrimental to health and wellbeing;
- Too much artificial stimulation and lack of exposure to natural environments, such as parks, can cause exhaustion and reduce vitality.

Theories about the effects of contact with nature on human health and well-being

Biophilia hypothesis: Developed in the 1980s, biophilia refers to the *innate human love for nature* and living things. This hypothesis suggests that humans have an inherent (ingrained in human genotypes) inclination to connect with natural processes and diversity. This affinity is important for physical and mental development and connected to emotional, cognitive, aesthetic, and spiritual growth. More recent research supports the biophilia hypothesis, for example Kellert and Derr (1998) and Burls (2007b) identifies nine 'values' of nature that benefit human interaction: aesthetic, dominionistic, humanistic, moralistic, naturalistic, negativistic, scientific, symbolic, and utilitarian values. These values are elaborated on page 9-10 and demonstrate how contact with nature supports aspects of human development and well-being.

Attention Restoration theory: Studies show that natural settings are the most reliable sources of restorative experiences, helping individuals recover from stress and gain perspective on their problems. Kaplan and Kaplan (1989) describe four ways how contact with nature can restore 'voluntary' attention¹, that is a deliberate kind of attention that is focused and deliberate and can lead to mental fatigue and reduced performance when overused. These are (1) "being away" from routine activities, (2) experiencing "soft fascination" with natural elements, (3) immersing in the "extent" of nature, and (4) finding a compatible environment for human desires.

Stress reduction theory: This theory is related to the biophilia hypothesis and suggests that nature is less cognitively demanding than urban environments, which have high visual complexity, strangers and noise. It suggests that natural environments promote recovery from stress while built environments that hinder it for psycho-evolutionary reasons, specifically natural settings require less information processing, reducing an individual's stress levels.

Environmental self-regulation hypothesis: This hypothesis suggests that because we regulate our internal state in interaction with our environment, positive emotional states can be achieved through viewing and interacting with natural settings. In other words, natural spaces and restorative environments can help change negative feelings to positive ones because we regulate our emotions by adapting to what's going on around us.

The relaxation response: The relaxation response comprises four basic elements: a quiet environment, something to focus attention on, a passive mind, and comfort (Katcher et al. 1983). Natural objects of contemplation and sights induce calm and reverie, where reverie is created by a passive mind that allows thoughts and feelings to drift without being the focus of concentration. They induce relaxation through a combination of beauty, novelty, monotony, constancy. Relaxation is also induced by 'sudden beauty' for example brightly colored fish in a reef, passing birds, cloud patterns, the sea, or a glowing fire. These elements momentarily attract human attention and contribute to the relaxation response.

Maslow's hierarchy of needs: Proposes that basic needs must be met before we can meet our higher-order needs. Although not focused specifically on nature, nature and experiences in nature can contribute to fulfilling our basic needs (essentials like air, water, food, and shelter) and our higher-level needs (relationships, spirituality, group activities, and recreation). There is a lot of research data to support the idea that interaction with natural environments helps address deficits in basic needs and meets higher-level needs, particularly for

¹ Involuntary attention, on the other hand, is effortless and often drawn by elements in nature like moving things and bright objects.



those experiencing depression or anxiety. Spiritual or peak experiences also often occur in natural environments, further supporting the role of nature in fulfilling human needs.