Nature and Health
- Students’ perspective on Nature Assisted Interventions

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Introduction
Outdoor environments for health and well-being is the main topic for an international master’s programme offered at the Swedish University of Agricultural Sciences, Alnarp, leading to a master’s degree with a major in Landscape Architecture (120 credits). The programme is offered at full time and part time study. Each course includes 2-4 meetings. The programme offers both theoretical foundation within environmental perception, place attachment and landscape architecture. There are courses covering topics on health promoting outdoor environments for different groups of users ranging from public places for children’s play and education for elderly in sheltered living. The courses also focus on specific target groups with specific needs such as rehabilitation or therapy.

Two such courses are: 1) nature-based interventions (NBI), with focus on the different types of outdoor environments where the natural space is the primary element of the intervention (focus on the landscape and places as health promoting resources) and the course 2) Nature-Assisted Interventions (NAI), with focus on nature and natural elements such as plants and animals as a medium in a health promoting intervention with focus on activities (focus on the activities that can be performed either outdoors or indoors such as hospitals, elder care homes, schools, space shuttles/in space, etc.).

This factsheet is based on students’ work within the course Nature-Assisted Interventions during spring 2018. The course is divided into four modules where the two first blocks provide overview and introduction into the field of research on plant-human interactions and animal-human interactions as well as introduction to practical examples in real world situations. The third module is performed as a case study, where the student visit and study practical examples of Nature-Assisted Interventions with focus on activities (independent of place – outdoors or indoors). The last module focuses on abstraction of knowledge from the cases. The students presented their cases for each other in smaller groups and afterwards, extracted what they understood as the “core essences” of NAI. From there, the students discussed and wrote abstracts on the topic illustrated in posters, presented in this factsheet.

Abstracts and Posters on Nature-Assisted Interventions – the essence

Nature as a Human Right!
Kerstin Ekeland-Sjöberg, Tetiana Kasaba and Anna Poock
Health is a state of complete physical, mental and social well-being and not merely absence of illness or infirmity (WHO, 1948). In today’s society, with increased demands both personally and professionally, sick leave numbers are rising. In Sweden, the most common cause is stress-induced illness. Here, we see an increase in Nature-Assisted Interventions (NAI), activities with nature as the key element, aimed at this user group, which are subsidised, funded and prescribed as a compliment to medication. It is important to broaden our perspective and see activities assisted by nature also as an important health promoting and empowering tool for individuals with functional variations as well as the public in general, but this is less acknowledged and funded.

No one has the means or the ability to get out on their own; thus, they require help from others to experience activities that include Nature- and Animal-Assisted Interventions.

Our aim was to investigate the reasons for...
The study is based on compilation of three different case studies (CS), interviews, literature reviews and observations. The case studies are:

Nordens Ark, Hunnebostrand, following outdoor activities with focus on individuals with functional variations. During a project spanning over three years, they worked with courses for carers and caregivers, with the ambition that the participants feel safe and secure in the forest regardless of circumstances (physical or/and mental).

Amygdalus, Stockholm, a daily activity centre which provides different activities for people with intellectual impairments (autism) by using The Garden of The Senses in Stockholm.

PaulssonPaleo, Halmstad, a family run company on a rural farm. They work with activities focused on nutrition and functional training. Their aim is to help individuals live a healthier and stronger life.

Common policy regulations in Sweden regarding NAI is weak, which makes it difficult for companies to market their NAI activities and for people in need of NAI to find, afford and participate in the activities. Funded NAI activities have been focused on stress-related disorders. However, there is a need to broaden the perspective of NAI to enable more equal opportunities regardless of people’s background. A good example of a network bridge that facilitates all these needs is the coordination platform GreenCare Finland, which includes Green Care and Green Empowerment.

Solutions are to form and develop: NAI Policy: code of ethics and quality regulation to get equality for everyone i.e. public in general, people with functional variations and people with stress related disorders.

Governmental funding for both the NAI sector and the public in need of NAI.

Easy access to information about available NAI activities.


Natural Quality of Life
Catharina Esther Regina Stenmo, Åsa Granath

Nature-Assisted Interventions are about promoting health and well-being by using nature, including nature elements, plants and animals. Interventions are goal directed activities for improving mental and physical health, which are key elements for well-being. By nature, we are social beings. We seek to connect with others and need interpersonal interaction in order to feel included and to feel we are worthy. This also leads to a higher sense of trust, in ourselves, our abilities, in other people and in our natural environment.

Mindfulness is a way of being present, feeling grounded and aware of the here and now. Being in nature has the same effect. It is also of importance to take a holistic view that both body and mind matter. Mind-set could potentially make a difference in how someone experiences actual illness, whether the person feels ill or well. Experiencing some control over yourself and your situation gives you a sense of strength and empowerment, which, in turn, enables you to endure almost anything. Interventions are not place dependent. A way of reducing stress and other mental problems is to connect to natural settings, either by being in nature or by being together with animals in another setting. Interventions are often group activities where people with similar life situations meet.

Activities might then serve to bring people together and promote connectedness. To find meaning in life could be hard for someone who has been on long-term sick leave and who may be suffering from depression or other mental issues. Reconnecting with nature, perhaps through a therapy dog, might give back some sense of meaningfulness. Doing activities by oneself in nature could contribute to a sense of tranquillity, which, in turn, brings restoration and the self-awareness that comes from being present with one’s thoughts. Self-awareness can affect the ability to take in therapeutic treatments and also lead to better self-regulation. Animal-Assisted activities are beneficial for both humans and animals. The way we treat animals is a reflection of how we treat ourselves and perceive each other. Interaction with animals leads to a higher empathetic intelligence. Doing activities together with animals provides mutual closeness, warmth and comfort, which can reduce stress and depression.

In short, we feel good when we give ourselves Natural Quality of Life!

The Essence of Nature-Assisted Interventions - Awareness, Connection and Sense of Unity in Nature
Sara Malve-Ahbooth, Felicia Eckersten, Josefin Wilkins, Åse Svanegård

The aim was to understand and clarify the essence of Nature-Assisted Interventions (NAI) by defining its components. Knowledge from individual NAI case studies presented at a group seminar was used in a process of brainstorming and mind-mapping. A starting point was to analyse the definition of Animal-Assisted Interventions (AAI), as used by the International Association of Human-Animal Interaction Organisations (IAHAIO) and apply this definition to all NAI. Semantic analysis included defining both denotative and connotative meanings of words. A model of NAI was developed based on new definitions of
The Essence of Nature-Assisted Interventions

Awareness, Connection and Sense of Unity with Nature

Conclusion
NAI encompasses all aspects of nature and involves the interactions between intervention, facilitator and user. All are equally important for it to be considered a nature-assisted intervention.

Result
• Nature: Elements (e.g. water, air and soil) plants, animals and humans.
• Intervention: Changes, solves or stops a process or state of being.
• Facilitator: Quality assurance through knowledge and responsibility.
• User: Individuals, families and communities with various needs.

NAI is not a new concept; it involves interactions between humans and nature to improve health and well-being. CWN is found in various forms.

NAI and NBI can offer a range of activities, increasing the potential for both preventive and curative forms. These interventions are cost-effective and sustainable.

Disconnection from nature has been found to be central to the rising social-ecological-environmental crises.

Multiple benefits of Connectedness With Nature (CWN) have been linked to physical, social and psychological health and well-being. CWN supports happiness and more meaningful lives.

The potential of NAI in playing a larger role has not yet been recognised.

Disconnection from nature has been found to be central to the rising social-ecological-environmental crises. Multiple benefits of Connectedness With Nature (CWN) have been linked to physical, social and psychological health and well-being. CWN supports happiness and more meaningful lives. CWN is found to be a reliable predictor and motivator for environmentally responsible behaviour (Ives et al., 2018). NAI can enable meaningful interaction with nature; therefore, it can be considered as one possible pathway to CWN.

Similarly, rising healthcare costs due to ageing populations and lifestyle related diseases such as chronic stress and burnout, depression, etc. are burdening national economies throughout varying age categories. NAI and NBI can offer a range of activities, in both preventive and curative form. Due to easy access and low to no maintenance costs, NAI can be easy to implement and maintain in one’s daily life.

Finally, with possibilities for both preventive and curative forms of use, NAI offers a varie-
ty of fulfilling employment opportunities in cross-disciplinary areas.

We highlight the potential impact that NAI can have on the environment and the society at large. We suggest a move from the rescue mode to the source mode where NAI and NBI become the norm.


Discussion and summary

Beyond health – Nature-Assisted Interventions – even when getting well is too far away

Magnus Andersson

In Resilience research, the question is no longer how can we get back to a state of equilibrium that is sustainable again; rather, the focus is to stay away from the definite thresholds, bounce back, recover some good when possible, and strengthen our capacity to prevail when the outcome is not going to improve. Human progress has evolved when we have learned to harvest nature in new ways. In the course Nature-Assisted Interventions, four groups have focused on different aspects of how we can look upon the concept of taking Nature to the user, with interventions that assist our capacity to cope better even when we might be too far away from getting well again.

One group focuses on the structure of Nature-Assisted Interventions and suggests a model and some components to it. They start to build a model around the theory of a connectedness to nature, where empowerment and a sense of coherence can be reached using an ecological approach, where we feel good about nurturing nature. Through interventions, it is possible to instil positive acts that will change, stop or stabilise a state of being. This is done by a facilitator, an actor who uses knowledge and responsibility to cultivate positive experiences or change with the help of nature for specific users with certain needs.

Another group reflects on the need to problematise and broaden the definition of health stated by, for example, the United Nations in 1948 to include more health promoting aspects. Some people do not have the capacity to act in a health promoting way to the same extent as others; thus, there are inequalities. Activities that include nature, plants and/or animals can be key elements in a healthy lifestyle. Therefore, there is a need for assistance in enabling the experience of positive impacts of nature to all groups, as there is such variation in the capacity to reach and use places where activities in nature can take place. Sometimes, the natural resources, plants and animals must be brought to the users.

A third group calls for a normative shift away from a rescue mode to a source mode, where we form our way of living into being more in accordance with the essence of Nature-Assisted Interventions as well as with Nature based interventions. The rationale here is that our present way of organising our society is not in balance with a sustainable and ecological way of life, which creates problems both for individuals and for society as a whole. Our Connectedness with Nature calls for more of an ecological lifestyle that would benefit our health and well-being. This would also be a better way to keep fiscal costs for healthcare and sick leave at lower levels.

Finally, the fourth group promotes a natural quality of life through Nature-Assisted Interventions. They look to Mindfulness as an inspiration for how human beings can culture a natural mind-set that can empower us to endure almost everything. Reconnection to nature can foster a better capacity to experience meaning and a ‘mindful’ natural quality of life, regardless of the placement and our current health status. Animal-Assisted Interventions can help us to achieve an emphatic intelligence and to reflect on how we want to be treated ourselves.

Concluding remarks

Nature-Assisted Interventions seem to be an obvious way to promote resilience in individuals, groups and societies. We all want to experience quality of life, even when we need to face the fact that our health is going to fade away. Nature seems to offer a proven health promotion resource that can be used wherever we are and as long as we live. Connection to nature can help us stay on the safe side of the critical health thresholds. As humans, we desire to tame nature and to care for our vulnerable. Cultivation of nature is possible in new ways and can be used even beyond health when some quality of life is the major outcome. Nature-Assisted Interventions offers examples of such new ways.

Acknowledgment

Our appreciation to Szu_ying WU for her contribution to the poster Natural Quality of Life and to Dr Fredrika Mårtensson, programme director for the master's programme Outdoor Environments for Health and Well-being, for her contribution to the introduction part of the factsheet. For further information about the programme, see [www.slu.se/ohw](http://www.slu.se/ohw).

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