

Forest for Rest

Recovery from exhaustion disorder

Elisabet Sonntag-Öström

Akademisk avhandling

som med vederbörligt tillstånd av Rektor vid Umeå universitet för
avläggande av medicine doktorsexamen framläggs till offentligt försvar i
hörsal Betula, byggnad 6M, Norrlands Universitetssjukhus, Umeå,
tisdagen den 30 september, kl. 13:00.
Avhandlingen kommer att försvaras på svenska.

Fakultetsopponent: Professor emerita, Marie Åsberg,
Institutionen för Kliniska vetenskaper, Karolinska institutet, Stockholm,
Sverige.



**Department of Public Health and Clinical Medicine,
Occupational and Environmental Medicine**

Umeå University

Umeå 2014

Organization

Umeå University
Department of Public Health and
Clinical Medicine, Occupational and
Environmental Medicine

Document type

Doctoral thesis

Date of publication

9 September 2014

Author

Elisabet Sonntag-Öström

Title

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Abstract

Background Exhaustion disorder (ED) is a common mental and behavioural disorder which often leads to severe negative consequences for the individual and the society. Natural environments have positive effects on mental, physiological and attentional recovery in stressed persons, which encouraged us to test if forest visits could improve recovery from ED. The main objective of the thesis was to study if visits to different kinds of forest environments have positive health effects on patients suffering from ED, and if forest visits can be utilized for rehabilitation.

Methods Participants in the MiniRest study (n=20) and the Pilot study (n=6) (Papers I and II) were recruited from the Stress Rehabilitation Clinic (SRC) at the University Hospital in Umeå. Participants in the randomised controlled study, ForRest (n=99) and the Interview study (n=19) (Papers III and IV) were recruited from both the SRC and the Swedish Social Insurance Agency in Umeå. The MiniRest study involved only female ED patients and focused on immediate mental, physiological and attention capacity effects in one urban and three forest environments. The Pilot study investigated the practical arrangements for the forthcoming ForRest study. Participants in the ForRest study were randomised into either a three-month forest rehabilitation group; A (forest visits twice a week/4 hours per day) or to a control condition; B. Both groups received Cognitive Behavioural Rehabilitation (CBR) at 24 occasions/once a week after the three-month study period. Preferences for forest environments, mental state and attention capacity were studied for group A only. Psychological health measurements and sick leave data were compared between the groups after (i) the forest rehabilitation and (ii) the CBR. The Interview study was conducted according to grounded theory methodology and consisted of 19 participants from group A to explore personal experiences from the forest rehabilitation. Data collection was implemented through questionnaires, medical records, physiological measurements, and interviews.

Results Exposure to forest environments was associated with higher preference, more favourable mental state and physiological responses, and increased attention capacity compared to an urban environment (Paper I). Open and accessible forest environments were preferred (Papers I, II and III). Recovery from ED was found in both groups in the ForRest study, but there were no differences between the groups over time. In group A, positive effects on mental state and attention capacity were found during the forest visits. An interaction effect was found with more positive effects on mental state during spring compared to autumn (Paper III). Solitude, feelings of freedom and no demands were important for finding peace of mind during the forest visits. Moreover, easier access to peace of mind, reflective thinking and positive feelings were reported as the forest rehabilitation progressed (Papers II and IV).

Conclusions Forest visits have restorative effects for ED patients through enhanced mental well-being, easier access to peace of mind, beneficial physiological reactions and increased attention capacity which support the use of forest environments in rehabilitation. However, forest rehabilitation tested in a randomised controlled trial did not improve recovery from ED. Potentially rehabilitation with CBR and forest visits integrated could be more effective and should be further investigated in nature-assisted rehabilitation for ED patients.

Keywords

Burnout, nature-assisted therapy, rehabilitation, forestry, stress disorders, environmental medicine, restoration, human health, well-being

Language

English

ISBN

978-91-7601-083-9

ISSN

0346-6612

Number of pages

47 + 4 papers