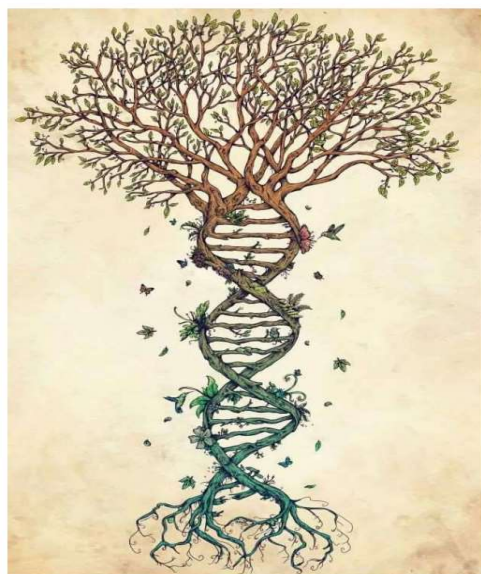




Πανεπιστήμιο Δυτικής Αττικής  
ΠΜΣ Περιβαλλοντική  
Επικοινωνία και Προαγωγή  
Υγείας

«Περιβαλλοντική Επικοινωνία και Προαγωγή Υγείας»



'The Fabric of Life' by Rene Campbell

# Οικοθεραπεία

Καθηγήτρια Κωνσταντίνα Σκαναβή

Διδάσκων:

Ιωάννης Σκιαδάς, MD, PhD

Θεματική ενότητα:

Καρδιά και ψυχή. Κυκλοφορία και ύπαρξη ζωής: στον άνθρωπο, την κοινωνία, το φυσικό περιβάλλον. Κοινοί άξονες δομής και θεραπείας.

# The health benefits of the great outdoors: A systematic review and meta-analysis of greenspace exposure and health outcomes

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C. Twohig-Bennett, A. Jones

Environmental Research 166 (2018) 628–637

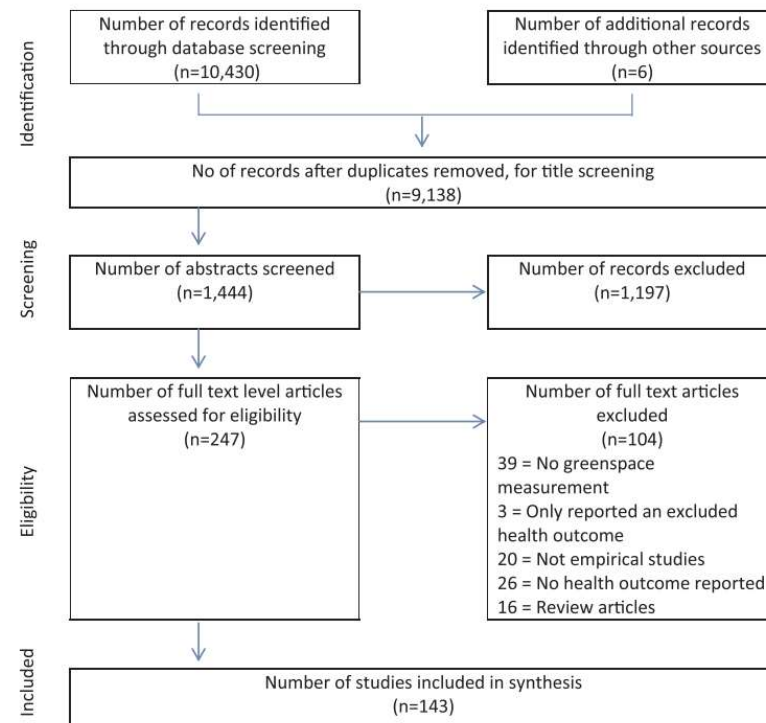


Fig. 1. Flow chart of studies.

## Nature contact and health research domains

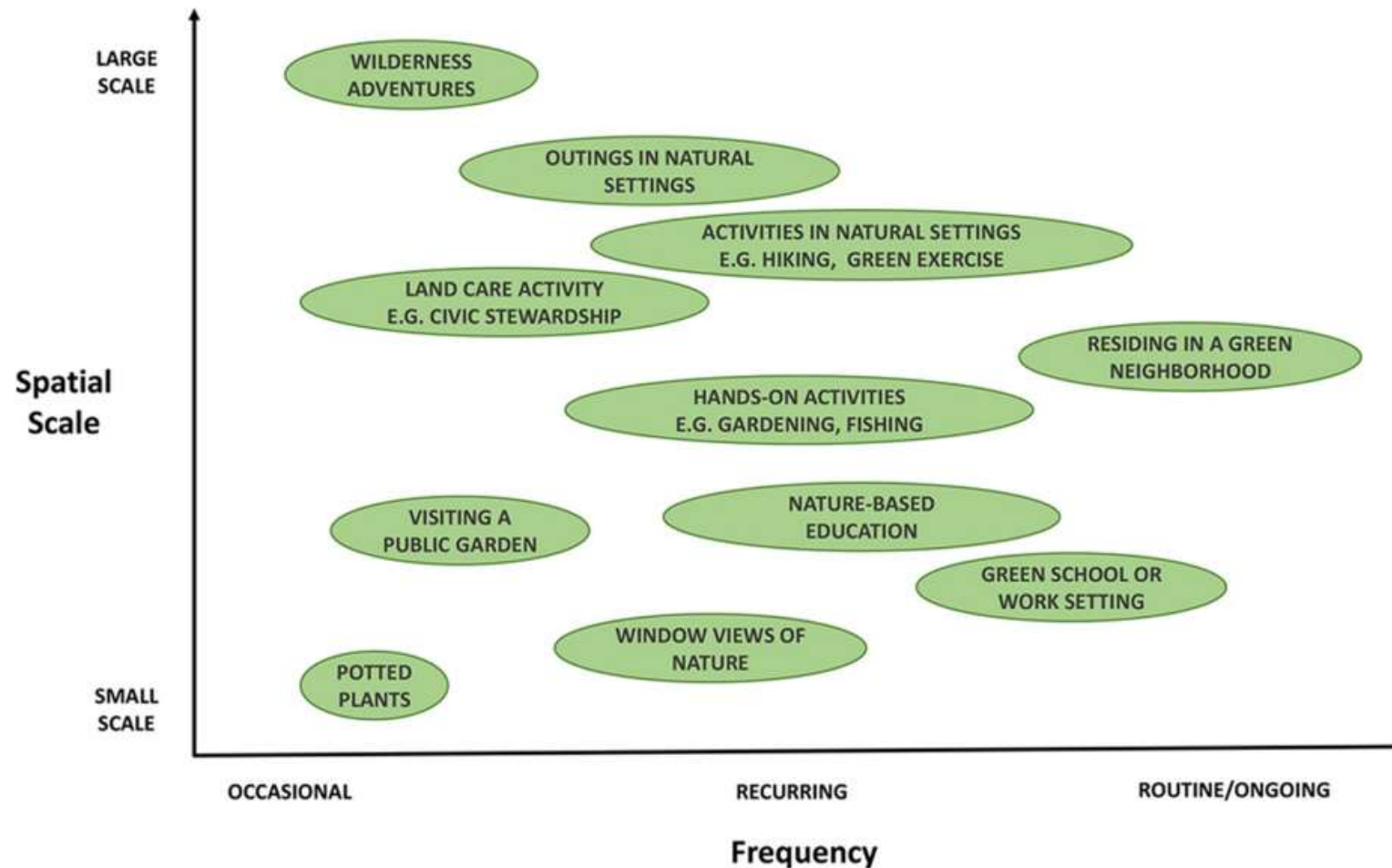
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### Domain

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1. Mechanistic biomedical studies
  2. Exposure science
  3. Epidemiology of health benefits
  4. Diversity and equity considerations
  5. Technological nature
  6. Economic and policy studies
  7. Implementation science
-

# A spectrum of forms of nature contact.



## Summary of evidence-based health benefits of nature contact.

No.	Health/well-being benefits	References
1	Reduced stress	<a href="#">Berto 2014</a> ; <a href="#">Fan et al. 2011</a> ; <a href="#">Nielsen and Hansen 2007</a> ; <a href="#">Stigsdotter et al. 2010</a> ; <a href="#">van den Berg and Custers 2011</a> ; <a href="#">van den Berg et al. 2010</a> ; <a href="#">Ward Thompson et al. 2016</a>
2	Better sleep	<a href="#">Astell-Burt et al. 2013</a> ; <a href="#">Grigsby-Toussaint et al. 2015</a> ; <a href="#">Morita et al. 2011</a>
3	Improved mental health:	
	Reduced depression	<a href="#">Astell-Burt et al. 2014c</a> ; <a href="#">Beyer et al. 2014</a> ; <a href="#">Cohen-Cline et al. 2015</a> ; <a href="#">Gascon et al. 2015</a> ; <a href="#">Kim et al. 2009</a> ; <a href="#">Maas et al. 2009b</a> ; <a href="#">McEachan et al. 2016</a> ; <a href="#">Nutsford et al. 2013</a> ; <a href="#">Sturm and Cohen 2014</a> ; <a href="#">Taylor et al. 2015</a> ; <a href="#">White et al. 2013</a>
	Reduced anxiety	<a href="#">Beyer et al. 2014</a> ; <a href="#">Bratman et al. 2015a</a> ; <a href="#">Maas et al. 2009b</a> ; <a href="#">Nutsford et al. 2013</a> ; <a href="#">Song et al. 2013</a> ; <a href="#">Song et al. 2015</a>
4	Greater happiness, well-being, life satisfaction	<a href="#">Ambrey 2016</a> ; <a href="#">Fleming et al. 2016</a> ; <a href="#">Larson et al. 2016</a> ; <a href="#">MacKerron and Mourato 2013</a> ; <a href="#">Van Herzele and de Vries 2012</a> ; <a href="#">White et al. 2013</a>
5	Reduced aggression	<a href="#">Bogar and Beyer 2016</a> ; <a href="#">Branas et al. 2011</a> ; <a href="#">Kuo and Sullivan 2001a, b</a> ; <a href="#">Troy et al. 2012</a> ; <a href="#">Younan et al. 2016</a>
6	Reduced ADHD symptoms	<a href="#">Amoly et al. 2014</a> ; <a href="#">Faber Taylor et al. 2001</a> ; <a href="#">Faber Taylor and Kuo 2009</a> ; <a href="#">Faber Taylor and Kuo 2011</a> ; <a href="#">Kuo and Faber Taylor 2004</a> ; <a href="#">Markevych et al. 2014b</a> ; <a href="#">van den Berg and van den Berg 2011</a>
7	Increased prosocial behavior and social connectedness	<a href="#">Broyles et al. 2011</a> ; <a href="#">Dadvand et al. 2016</a> ; <a href="#">de Vries et al. 2013</a> ; <a href="#">Fan et al. 2011</a> ; <a href="#">Holtan et al. 2015</a> ; <a href="#">Home et al. 2012</a> ; <a href="#">Piff et al. 2015</a> ; <a href="#">Sullivan et al. 2004</a>
8	Lower blood pressure	<a href="#">Duncan et al. 2014</a> ; <a href="#">Markevych et al. 2014a</a> ; <a href="#">Shanahan et al. 2016</a>
9	Improved postoperative recovery	<a href="#">Park and Mattson 2008</a> ; <a href="#">Park and Mattson 2009</a> ; <a href="#">Ulrich 1984</a>
10	Improved birth outcomes	Reviewed by <a href="#">Dzhambov et al. 2014</a>
11	Improved congestive heart failure	<a href="#">Mao et al. 2017</a>
12	Improved child development (cognitive and motor)	<a href="#">Fjortoft 2001</a> ; <a href="#">Kellert 2005</a>
13	Improved pain control	Acutely ( <a href="#">Diette et al. 2003</a> ; <a href="#">Lechtzin et al. 2010</a> ) and chronically ( <a href="#">Han et al. 2016</a> )
14	Reduced obesity	<a href="#">Bell et al. 2008</a> ; <a href="#">Cleland et al. 2008</a> ; <a href="#">P. Dadvand et al. 2014a</a> ; <a href="#">Lachowycz and Jones 2011</a> ; <a href="#">Sanders et al. 2015</a> ; <a href="#">Stark et al. 2014</a>
15	Reduced diabetes	<a href="#">Astell-Burt et al. 2014a</a> ; <a href="#">Bodicoat et al. 2014</a> ; <a href="#">Brown et al. 2016</a> ; <a href="#">Thiering et al. 2016</a>
16	Better eyesight	<a href="#">French et al. 2013</a> ; <a href="#">Guggenheim et al. 2012</a> ; <a href="#">He et al. 2015</a>
17	Improved immune function	<a href="#">Li et al. 2006</a> ; <a href="#">Li et al. 2008a</a> ; <a href="#">Li et al. 2008b</a> ; <a href="#">Li et al. 2010</a> ; <a href="#">Li and Kawada 2011</a>
18	Improved general health:	
	Adults	<a href="#">Brown et al. 2016</a> ; <a href="#">de Vries et al. 2003</a> ; <a href="#">Kardan et al. 2015</a> ; <a href="#">Maas et al. 2006</a> ; <a href="#">Maas et al. 2009b</a> ; <a href="#">Stigsdotter et al. 2010</a> ; <a href="#">Wheeler et al. 2015</a>
	Cancer survivors	<a href="#">Ray and Jakubec 2014</a>
	Children	<a href="#">Kim et al. 2016</a>
19	Reduced mortality	<a href="#">Coutts et al. 2010</a> ; <a href="#">Gascon et al. 2016b</a> ; <a href="#">Hu et al. 2008</a> ; <a href="#">James et al. 2016</a> ; <a href="#">Takano et al. 2002</a> ; <a href="#">Villeneuve et al. 2012</a>
20	Asthma and/or allergies (studies show both improvements and exacerbations)	<a href="#">Andrusaityte et al. 2016</a> ; <a href="#">Dadvand et al. 2014a</a> ; <a href="#">Fuertes et al. 2014</a> ; <a href="#">Fuertes et al. 2016</a> ; <a href="#">Lovasi et al. 2013</a> ; <a href="#">Lovasi et al. 2008</a> ; <a href="#">Ruokolainen et al. 2015</a>

Note: ADHD, attention-deficit hyperactivity disorder. The references in [Table 1](#) are illustrative rather than exhaustive; they include both recent reviews and research reports and older, widely cited publications.

*Communication*

## Physiological and Psychological Effects of Forest Therapy on Middle-Aged Males with High-Normal Blood Pressure

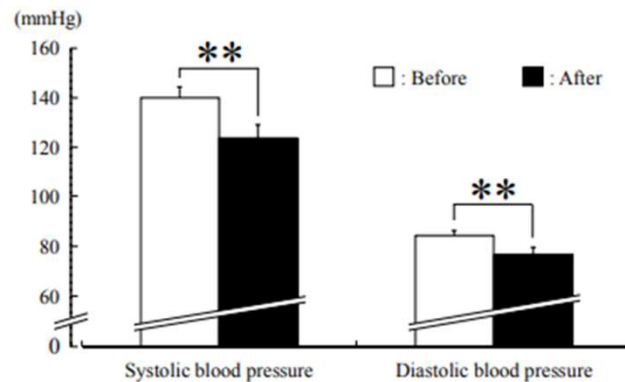
Hiroko Ochiai <sup>1,†</sup>, Harumi Ikei <sup>2,†</sup>, Chorong Song <sup>2,†</sup>, Maiko Kobayashi <sup>3</sup>, Takashi Miura <sup>5</sup>, Takahide Kagawa <sup>6</sup>, Qing Li <sup>3</sup>, Shigeyoshi Kumeda <sup>7</sup>, Yoshifumi Miyazaki <sup>2,\*</sup>



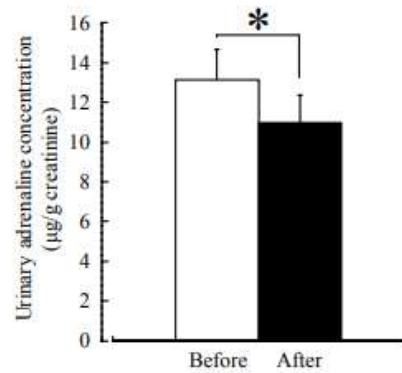
## Physiological and Psychological Effects of Forest Therapy on Middle-Aged Males with High-Normal Blood Pressure

Hiroko Ochiai <sup>1,†</sup>, Harumi Ikei <sup>2,†</sup>, Chorong Song <sup>2,†</sup>, Maiko Kobayashi <sup>3</sup>, Ako Takamatsu <sup>4</sup>, Takashi Miura <sup>5</sup>, Takahide Kagawa <sup>6</sup>, Qing Li <sup>3</sup>, Shigeyoshi Kumeda <sup>7</sup>, Michiko Imai <sup>8</sup> and Yoshifumi Miyazaki <sup>2,\*</sup>

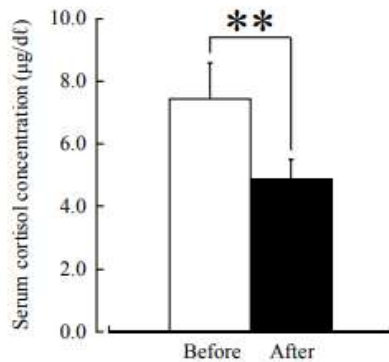
Int. J. Environ. Res. Public Health 2015, 12



**Figure 2.** Effect of forest therapy on systolic and diastolic blood pressures in middle-aged males with high-normal blood pressure.  $N = 9$ , mean  $\pm$  standard error. \*\*  $p < 0.01$ , paired  $t$ -test.



**Figure 3.** Effect of forest therapy on urinary adrenaline levels.  $N = 9$ , mean  $\pm$  standard error. \*  $p < 0.05$ , paired  $t$ -test.



**Figure 4.** Effect of forest therapy on serum cortisol levels.  $N = 9$ , mean  $\pm$  standard error. \*\*  $p < 0.01$ , paired  $t$ -test.

Time schedules of and calorie consumption during various activities of forest therapy.

Time	Event	Calorie Consumption (Kcal/min)
10:30–11:08	Stroll (Forest)	0.92
11:09–11:20	Sit (Forest)	0
11:21–11:26	Stroll (Forest)	0.85
11:27–11:31	Deep breathing (Forest)	0.02
11:32–11:39	Stroll (Forest)	0.71
11:40–11:49	Lie down (Forest)	0
11:50–12:17	Stroll (Forest)	1.72
12:18–13:16	Lunch and rest (Resting room)	0.12
13:17–13:30	Stroll (Forest)	0.38
13:31–13:53	Ride on the "Forest train" (Forest)	0.04
13:54–13:58	Stroll (Forest)	0.64
13:59–14:16	Stroll (Indoor pavilion)	0.31
14:17–14:32	Stroll (Forest)	0.17
14:33–15:05	Rest (Resting room)	0.05





# Do You Need a Nature Prescription?

Nature therapy may mean that better health is right outside your door.

By Carol Sorgen

## Meditation and Cardiovascular Risk Reduction A Scientific Statement From the American Heart Association

Glenn N. Levine, MD, FAHA, Chair; Richard A. Lange, MD, MBA, FAHA, Vice Chair; C. Noel Bairey-Merz, MD, FAHA; Richard J. Davidson, PhD; Kenneth Jamerson, MD, FAHA; Puja K. Mehta, MD, FAHA; Erin D. Michos, MD, MHS, FAHA; Keith Norris, MD; Indranill Basu Ray, MD; Karen L. Saban, PhD, RN, APRN, CNRN, FAHA; Tina Shah, MD; Richard Stein, MD; Sidney C. Smith, Jr, MD, FAHA; on behalf of the American Heart Association Council on Clinical Cardiology; Council on Cardiovascular and Stroke Nursing; and Council on Hypertension

**(*J Am Heart Assoc.* 2017;6:e002218. DOI: 10.1161/JAHA.117.002218.)**

Neurophysiological and neuroanatomical studies demonstrate that meditation can have long-standing effects on the brain

with physiological response to

stress,

smoking cessation,

blood pressure reduction,

insulin resistance and metabolic syndrome, endothelial function,

Inducible myocardial ischemia,

and primary and secondary prevention of cardiovascular disease

Topic	Findings
Neurophysiology and neuroanatomy	<ul style="list-style-type: none"> <li>• Neurophysiological and neuroanatomical studies suggest that meditation can have long-standing effects on brain physiology and anatomy</li> <li>• Studies generally are nonrandomized and involve modest numbers of participants, sometimes performed under the direction of extremely experienced (&gt;10 000 hours) meditators</li> <li>• Different forms of meditation have different psychological and neurological effects, and thus the neurophysiological and neuroanatomic findings of 1 type of meditation cannot be extrapolated to other forms of meditation</li> </ul>
Psychological, psychosocial, and physiological response to stress	<ul style="list-style-type: none"> <li>• Many, although not all, studies report that meditation is associated with improved psychological and psychosocial indices</li> <li>• Differences in populations, control of potential confounders, and type and length of meditation evaluated may account for discrepant findings. Small sample sizes and lack of randomization are common study limitations</li> <li>• Further study is needed on how meditation influences physiological processes associated with the stress response</li> </ul>
Blood pressure	<ul style="list-style-type: none"> <li>• Magnitude of reductions of systolic blood pressure varies widely</li> <li>• Study limitations including the methods of blood pressure measurements and bias in data ascertainment, high dropout rates, and different populations studied</li> </ul>
Smoking and tobacco use	<ul style="list-style-type: none"> <li>• Some randomized data show that mindful meditation instruction improves smoking cessation rates</li> </ul>
Insulin resistance and metabolic syndrome	<ul style="list-style-type: none"> <li>• Limited data on the effects of meditation on insulin resistance and metabolic syndrome</li> </ul>
Subclinical atherosclerosis	<ul style="list-style-type: none"> <li>• A few suboptimal studies of meditation and lifestyle intervention suggest the potential for benefit on atherosclerosis regression</li> <li>• Studies limited by multimodality approach, attrition, and incomplete follow-up</li> <li>• No firm conclusions can be drawn on the effects of meditation on atherosclerosis</li> </ul>
Endothelial function	<ul style="list-style-type: none"> <li>• Three studies showed no benefit of meditation on brachial reactivity in the overall cohorts, although 1 study suggested a benefit in a subgroup of patients with coronary artery disease</li> <li>• No conclusions can be drawn on the effects of meditation on endothelial function</li> </ul>
Inducible myocardial ischemia	<ul style="list-style-type: none"> <li>• Limited older studies suggest that meditation can lead to improvement in exercise duration and decreased myocardial ischemia</li> <li>• No contemporary studies have evaluated effects of meditation on myocardial blood flow or ischemia with advanced imaging techniques</li> </ul>
Primary prevention of CVD	<ul style="list-style-type: none"> <li>• Two studies of short-term intervention report surprising mortality reductions, and thus these findings need to be reproduced in larger, multicenter studies</li> <li>• Overall, because of the limited evidence to date, no conclusions can be drawn as to the effectiveness of meditation for the primary prevention of CVD</li> </ul>
Secondary prevention of CVD	<ul style="list-style-type: none"> <li>• Data on the potential benefits of meditation in patients with established coronary artery disease can best be characterized as generally of modest quality and as suggesting, but not definitely establishing, benefit</li> <li>• Because of generally limited follow-up time, there are more data on reduction of cardiac risk factors and psychological indices than on hard end points (eg, death, myocardial infarction)</li> </ul>

Supplementary Study Summary Table 2. Effects of meditation on blood pressure

Reference	Study type, design, type of meditation, and population	Primary Findings	Comments
Bai Z, J Human Hypertension, 2015	<ul style="list-style-type: none"> <li>MA of 12 RTC's of TM versus control for effect on blood pressure</li> <li>Total 996 patients</li> </ul>	<ul style="list-style-type: none"> <li>TM improved BP 4.26/2.33 mmHg when compared to control P&lt;.05</li> </ul>	<ul style="list-style-type: none"> <li>The completion rate was &lt;75% in 6 of 11 studies. Dropouts might have enhanced tendency to favor TM</li> <li>Only one study reported on all primary and secondary outcomes with intention-to-treat analysis,</li> <li>The efficacy of TM on BP tended to decrease with the study durations</li> </ul>
de Fátima Rosas Marchiori M, Geriatr Gerontol Int., 2015	<ul style="list-style-type: none"> <li>RCT of twice-daily meditation for 20 min for 3 months vs. wait-list control</li> <li>59 volunteers, aged ≥60 years with SBP 130-159 mmHg and DBP 85-99 mmHg</li> </ul>	<ul style="list-style-type: none"> <li>At one month SBP was lower in meditation group but at 3 months BP did not differ</li> </ul>	<ul style="list-style-type: none"> <li>Small sample size</li> <li>No change in physiologic parameters at end of study</li> </ul>
Blom, Am J Hypertension, 2014	<ul style="list-style-type: none"> <li>RTC of 8 weeks of mindfulness meditation on 24 hour BP control</li> <li>101 subjects (38% male)</li> </ul>	<ul style="list-style-type: none"> <li>Decrease in 24 hour BP of 0.4 mmHg in both treatment and control (wait list group)</li> <li>No significant between group reductions in blood pressure</li> </ul>	
Hughes JW, Psychosomatic medicine. 2013	<ul style="list-style-type: none"> <li>RCT of mindfulness-based stress reduction (MBSR) vs progressive muscle relaxation (PMR) over 8 weeks</li> <li>56 pre-hypertensive adults (50.3 years of age, on no BP meds). Clinic BP was the primary outcome.</li> </ul>	<ul style="list-style-type: none"> <li>In an intention to treat, clinic SBP fell 4.8 mmHg with MBSR vs 0.7 mmHg with PMR (P=0.016)</li> </ul>	<ul style="list-style-type: none"> <li>Small sample size</li> </ul>
Schneider RH, Circ Cardiovasc Qual Outcomes. 2012	<ul style="list-style-type: none"> <li>RCT 201 adults with coronary artery disease treated with a TM program or health education</li> </ul>	<ul style="list-style-type: none"> <li>Systolic blood pressure fell 4.9 mmHg in TM vs. control (P=0.01)</li> </ul>	<ul style="list-style-type: none"> <li>Blood pressure reduction was a secondary outcome</li> </ul>
Palta P, J Urban Health, 2012	<ul style="list-style-type: none"> <li>8 week RTC on mindfulness meditation versus social support on BP control</li> <li>12 intervention and 8 control subjects</li> </ul>	<ul style="list-style-type: none"> <li>there was a 11/4 mmHg decrease in systolic/diastolic blood pressure in those randomized to 8 weeks of treatment</li> <li>there was a analysis adjusted significant 22/17 mmHg difference in blood pressure between the two groups at follow-up</li> </ul>	<ul style="list-style-type: none"> <li>Small number of patients studied</li> </ul>
Gregoski MJ, et al. J Adolesc Health. 2011	<ul style="list-style-type: none"> <li>Randomized trial - breathing awareness meditation (BAM), Botvin Life Skills Training (LST), and health education control (HEC)</li> <li>Study population consisted of 166 normotensive African American adolescents</li> </ul>	<ul style="list-style-type: none"> <li>BAM had greatest reduction in SBP and SBP, DBP and HR over the 24-hour period, overnight and during school hours. (Bonferroni adjusted, p &lt;0.05)</li> </ul>	
Nidich SI, Am J Hypertens. 2009	<ul style="list-style-type: none"> <li>Randomized trial in 298 university students treated with a transcendental meditation program or wait-list control.</li> <li>3 month intervention</li> </ul>	<ul style="list-style-type: none"> <li>Overall no difference in SBP &amp; DBP between groups.</li> <li>In hypertension risk subgroup (n=112), SBP fell 5 mmHg with TM compared to increased 1.3 mmHg for control (P= 0.014)</li> </ul>	<ul style="list-style-type: none"> <li>Hypertension risk subgroup was a secondary analysis</li> </ul>
Anderson, JV, Am J Cardiol, 2008	<ul style="list-style-type: none"> <li>MA of RTC of TM that randomly assigned individuals to different target BP levels</li> </ul>	<ul style="list-style-type: none"> <li>Transcendental Meditation, compared to control, was associated with the following changes: -4.7 mm Hg (95% confidence interval (CI), -7.4 to -1.9 mm Hg) and -3.2 mm Hg (95% CI, -5.4 to -1.3 mm Hg)</li> </ul>	<ul style="list-style-type: none"> <li>Study designs and BP methods of blood pressure measurement, as well as dropout rates, limit the extrapolation of results</li> </ul>
Manikonda JP, J Hum Hypertens. 2008	<ul style="list-style-type: none"> <li>8 week pilot study of either contemplative meditation combined with breathing techniques (CMBT) or no intervention in this</li> <li>observer-blind design</li> </ul>	<ul style="list-style-type: none"> <li>SBP after 8 weeks of meditation fell 15 mm Hg (vs 3 mm Hg in controls (P&lt;0.0001)</li> </ul>	<ul style="list-style-type: none"> <li>Small sample size</li> <li>Short duration</li> </ul>
Rainforth MV, Curr Hypertens Rep, 2007	<ul style="list-style-type: none"> <li>Systematic review and MA of stress reduction therapies</li> <li>Seventeen trials of 960 participants with elevated BP</li> </ul>	<ul style="list-style-type: none"> <li>Reductions in blood pressure with Transcendental Meditation were 5.0/2.8 mmHg (systolic/diastolic); p=0.002 (systolic) and p=0.02 (diastolic)</li> <li>No significant reductions in blood pressure with biofeedback, relaxation-assisted biofeedback, progressive muscle relaxation, and stress management training.</li> <li>program, -5.0/-2.8 mm Hg (P = 0.002/0.02</li> </ul>	<ul style="list-style-type: none"> <li>Review did not study other forms of meditation</li> </ul>

- Further research on meditation and cardiovascular risk is warranted. Such studies, to the degree possible, should meet the following criteria:
  - Utilize a randomized study design
  - Blinded adjudication of end points
  - Adequate power to meet the primary study outcome(s)
  - Include long-term follow-up
  - Have <20% dropout rate
  - Have >85% follow-up data
  - Be performed by investigators without inherent financial or intellectual bias in outcome

ACC indicates American College of Cardiology; AHA, American Heart Association; CVD, cardiovascular disease.

**(*J Am Heart Assoc.* 2017;6:e002218. DOI: 10.1161/JAHA.117.002218.)**



Possible **physiological pathways** include pain, fear, increased cardiac reactivity, reduced blood flow to the heart, and increased cortisol.

**anxiety**  
**depression**  
**chronic stress**  
**post traumatic stress disorder**

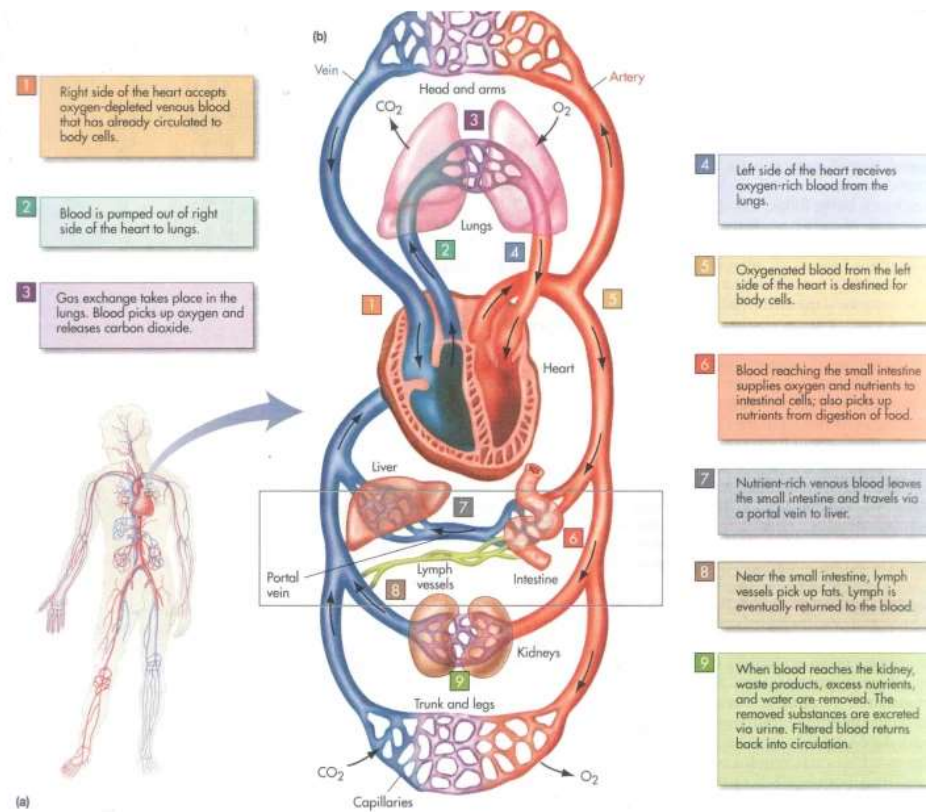
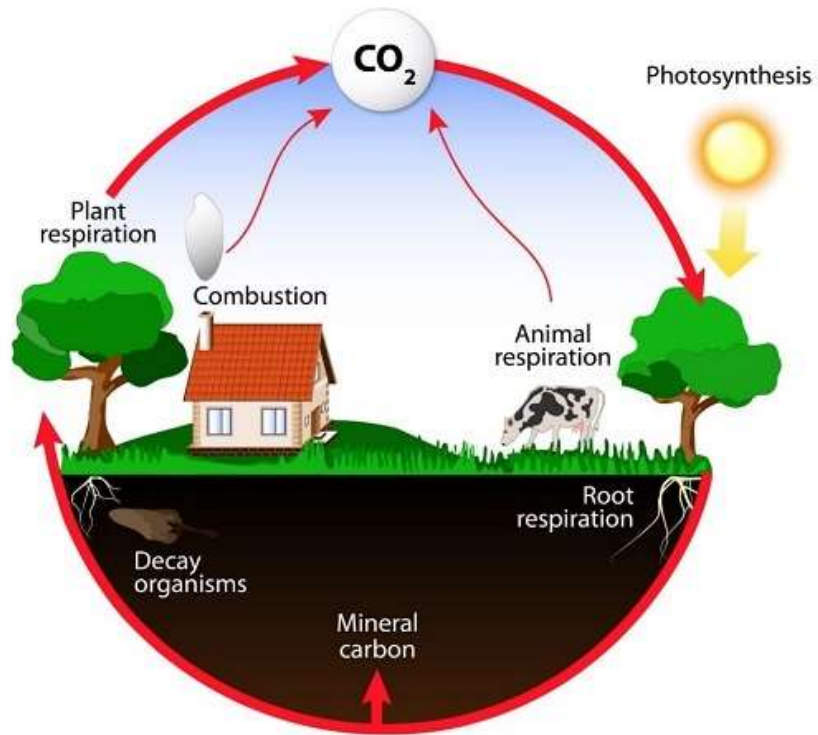


**stroke**  
**heart failure**  
**cardiovascular disease**  
**metabolic disease**  
**coronary artery calcification**  
**heart attack**

Possible **behavioral pathways** include medication non-adherence, smoking, and physical inactivity.

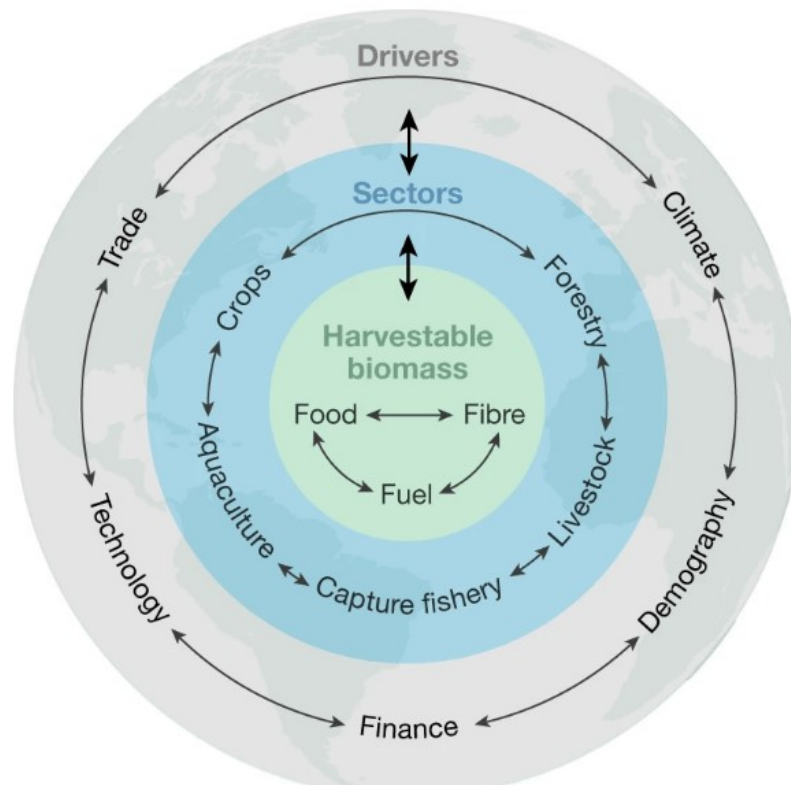






**Fig. 1: The global production ecosystem.**

From: *Anatomy and resilience of the global production ecosystem*

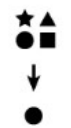


**Connectivity: the breakdown of isolation**



- Climate connections
- International trade
- Output-as-input relationships
- Transnational corporations

**Diversity: more becomes less**



- Biotic homogenization
- Habitat simplification
- Standardized food supply
- Industry consolidation

**Feedback: decoupling in a hyperconnected world**



- Intensification
- Supply substitution
- Virtual trade
- Financialization

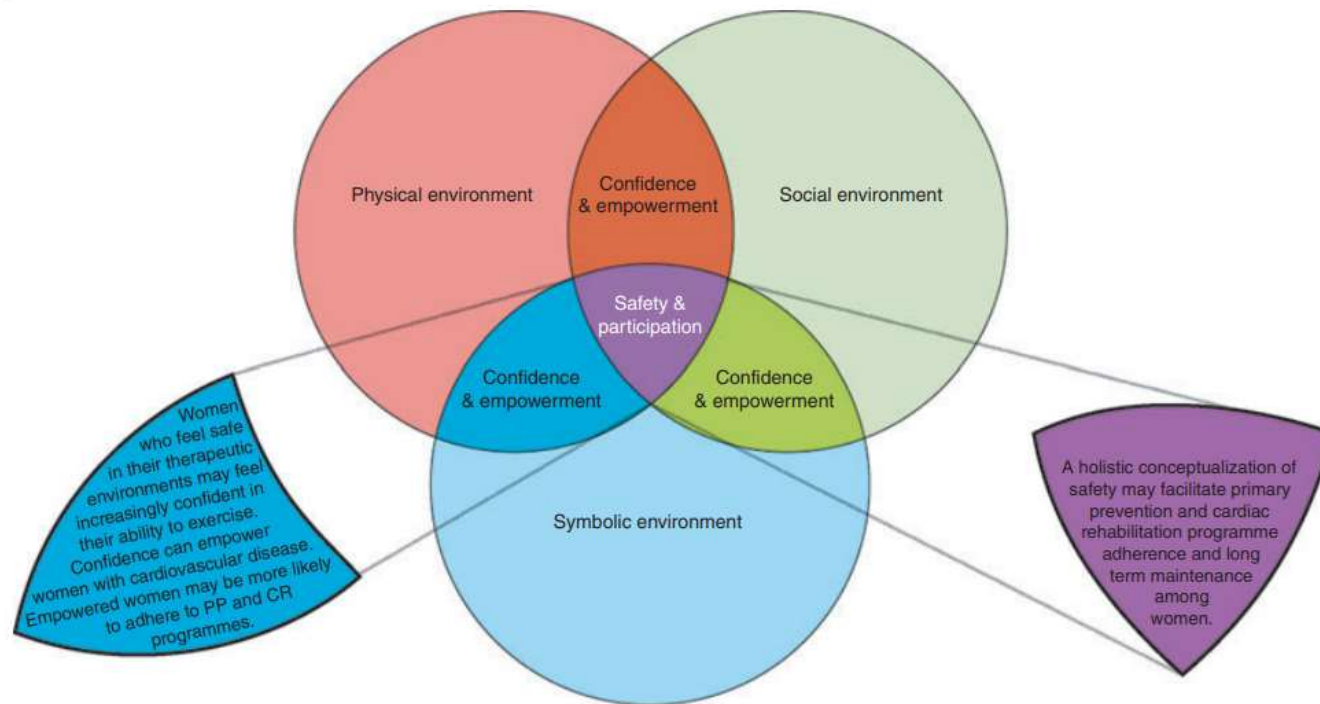
ORIGINAL RESEARCH

Cardiac rehabilitation and the therapeutic environment: the importance of physical, social, and symbolic safety for programme participation among women

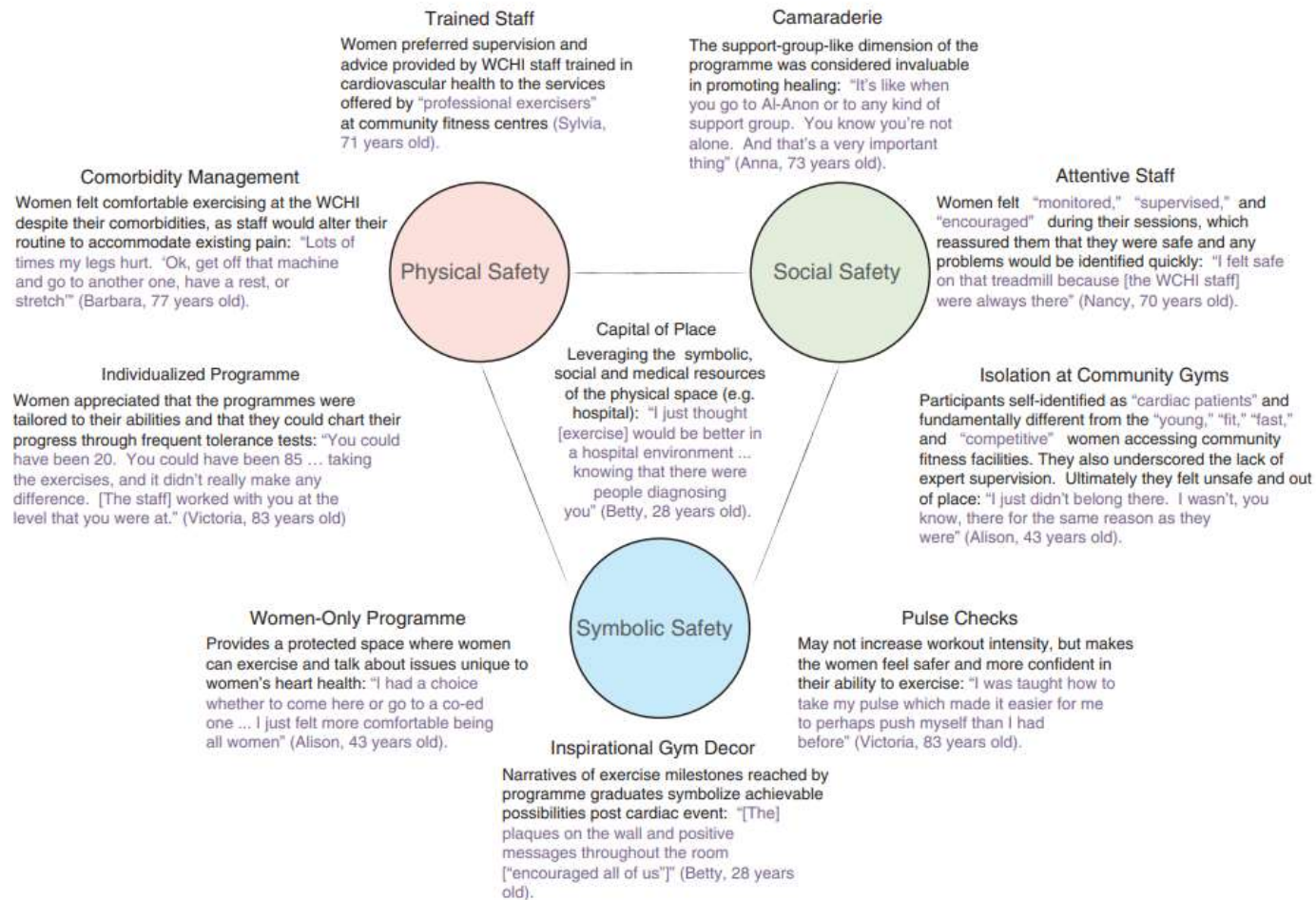
Erica J. Sutton, Danielle E. Rolfe, Mireille Landry, Leonard Sternberg & Jennifer A.D. Price

*Cardiac rehabilitation and the therapeutic environment*

Accepted for publication 21 April 2012



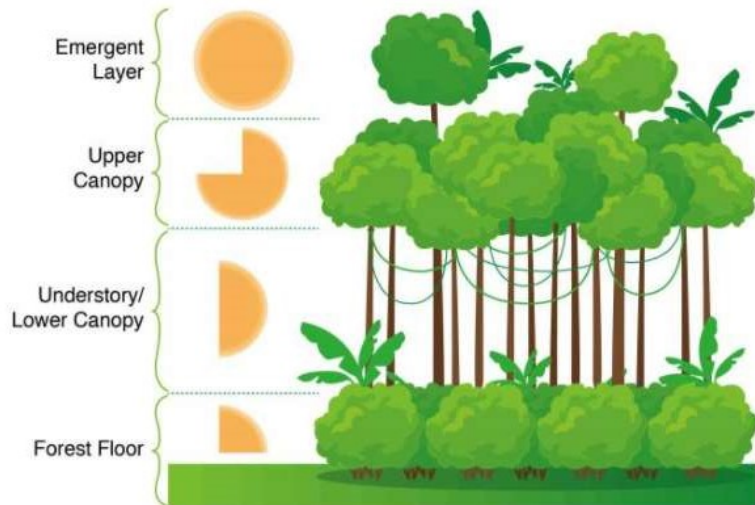
**Figure 2** This is a conceptual framework of safety designed to encourage the participation of women in PP and CR programmes. Integrating a comprehensive understanding of safety into cardiac prevention and rehabilitation programmes could provide important insight into how to enhance programme participation among women with heart disease. This model draws on Gelser *et al.*'s (2004) conception of the therapeutic environment as consisting of physical, social, and symbolic environments.



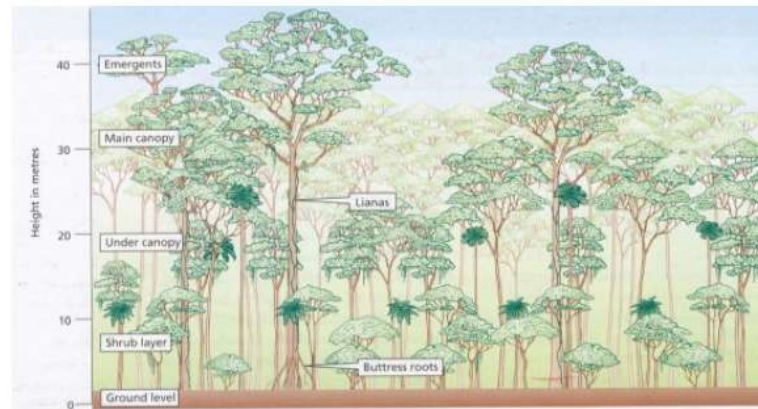
**Figure 1** Thematic category I: safety. Three types of safety: physical, social, and symbolic.



## Rainforest Layers of Vegetation



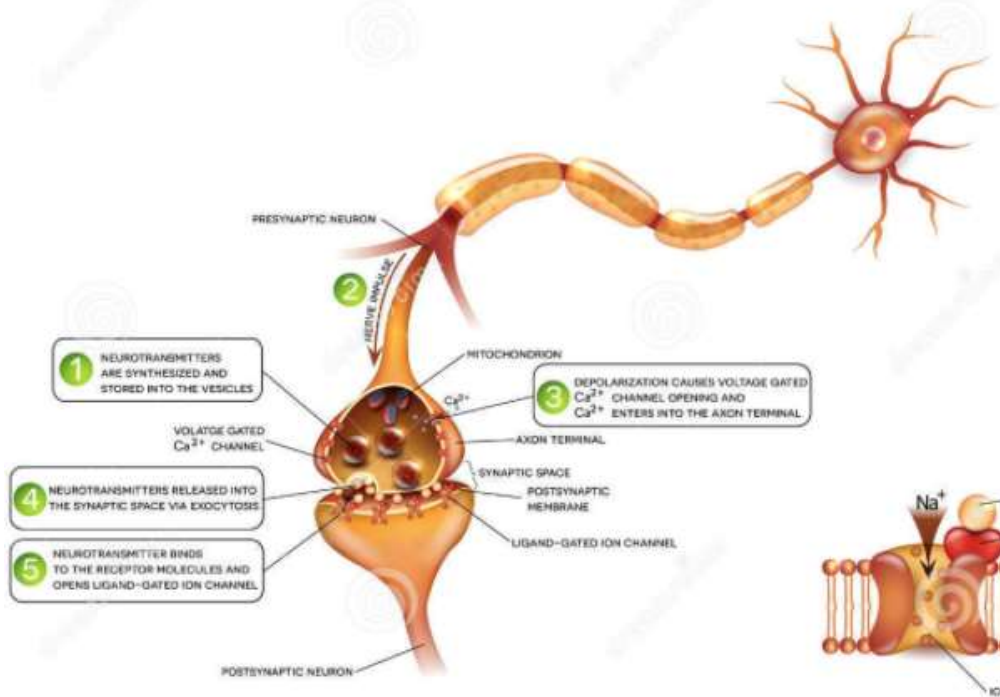
Layers in a rainforest



Layers in a rainforest (with height in meters)

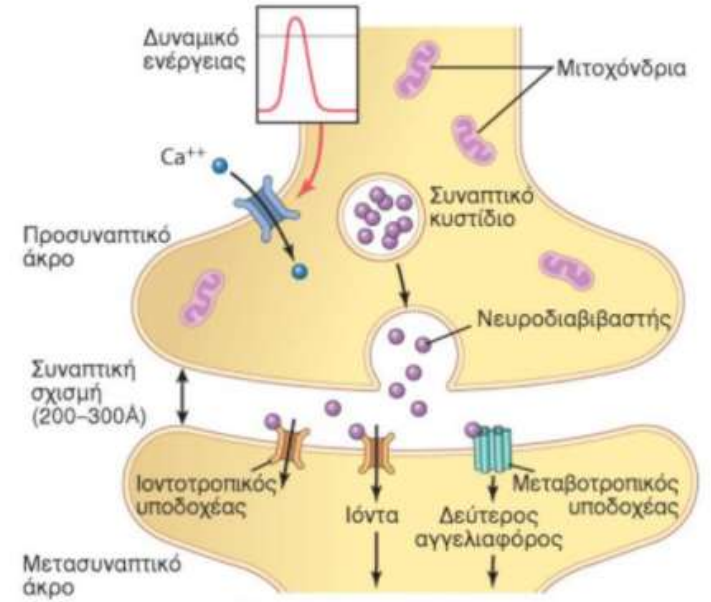
Οι σχέσεις αλληλεξάρτησης, επεκτείνονται και ανάμεσα στους ίδιους του ζώντες οργανισμούς, μιας και κανένα από τα ζωντανά είδη δεν μπορεί να επιβιώσει από μόνο του, αφού μέσα στην αλυσίδα της ζωής κάθε οργανισμός παίζει ένα καθορισμένο ρόλο. Συνεπώς, η αυτόνομη ικανότητα ανάπτυξης των οργανισμών δεν είναι ανεξάρτητη από το περιβάλλον

# THE SYNAPSE



# ΔΟΜΗ ΣΥΝΑΨΗΣ

Α Χημική σύναψη



Κυτταρική απάντηση:

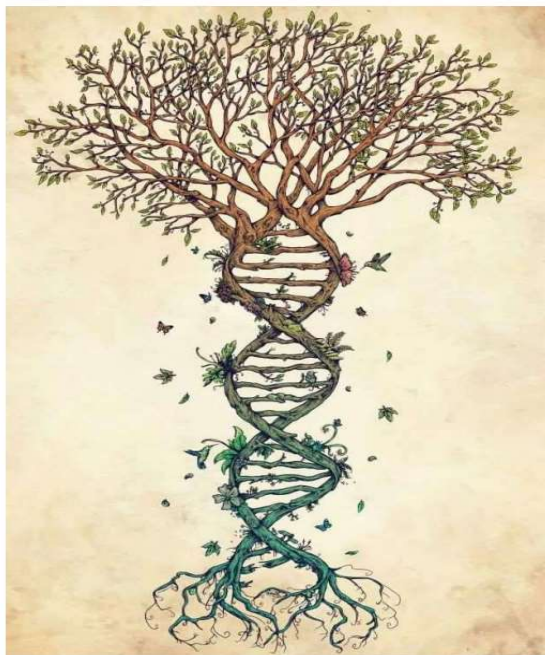
- Δυναμικό μεμβράνης
- Ηλεκτροχημικοί καταρράκτες
- Ρύθμιση της γονιδιακής έκφρασης





Πανεπιστήμιο Δυτικής Αττικής  
ΠΜΣ Περιβαλλοντική  
Επικοινωνία και Προαγωγή  
Υγείας

«Περιβαλλοντική Επικοινωνία και Προαγωγή Υγείας»



'The Fabric of Life' by Rene Campbell

# Οικοθεραπεία

Καθηγήτρια Κωνσταντίνη Σκαναβή

Διδάσκων:

Ιωάννης Σκιαδάς, MD, PhD

Θεματική ενότητα:

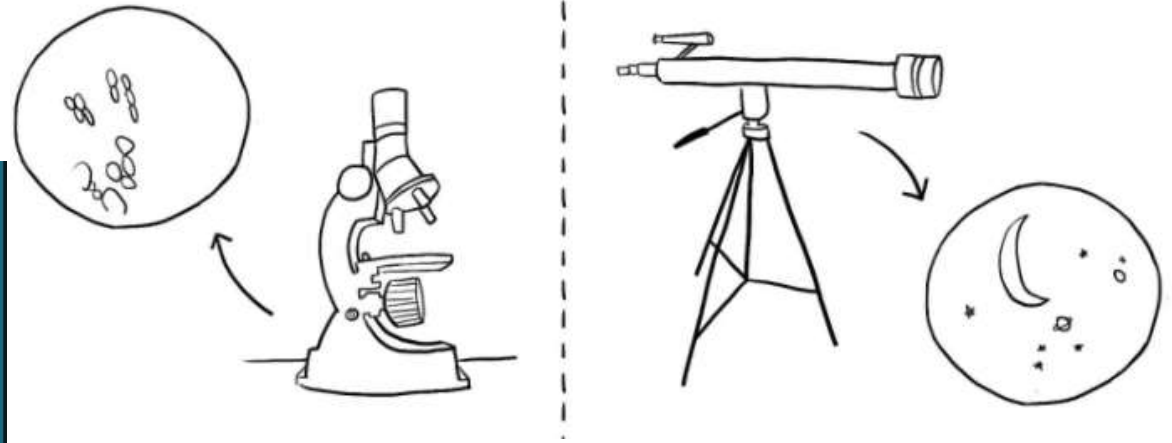
Δουλεύοντας με συστήματα και κλίμακες. Το εξωλεκτικό περιβάλλον, η περιβαλλοντική συνείδηση και σχέση τους με τις βιολογικές δραστηριότητες, τις κοινωνικές και ψυχοσυναισθηματικές συνιστώσες ανθρώπου και της κοινότητας. Ιστορία της οικοθεραπείας.



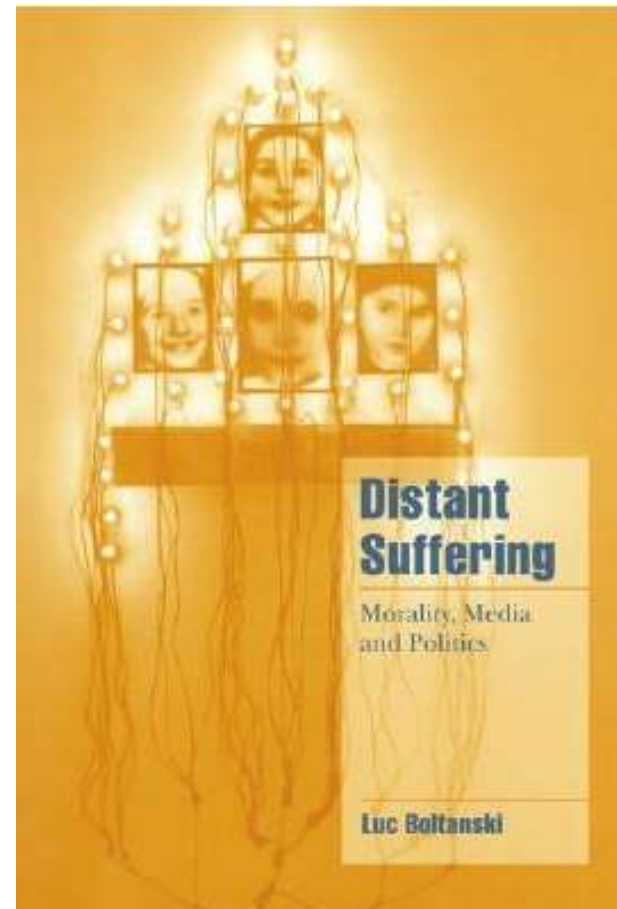
Σκέπτομαι με κλίμακες  
τοπικές, χρονικές, ...



## SYSTEMS THINKING SCALES



Πάσχουμε (?)  
εξ αποστάσεως



Βραχυπρόσθεσμα «αποπροσανατολιστικό»

Με επιμονή, και καλλιέργεια τοπικών και (παγ)κόσμιων συνδεδεμένων συνειδήσεων μπορεί να διαμορφωθεί σε τοπική δράση με συνολικότερη ευεργεσία

## Historical Ecology: Integrated Thinking at Multiple Temporal and Spatial Scales

Article · January 2007

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89

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1 author:



Carole Crumley  
Swedish University of Agricultural Sciences

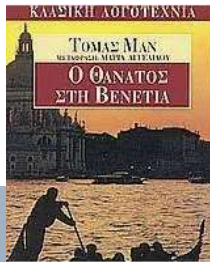
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## Emergence of **Polyfunctional** Environments



## Categories of Hybrid Environments



ecotherapy will be defined as ‘psychotherapeutic activities (counselling, psychotherapy, social work, self-help, prevention, public health activities) undertaken with an ecological consciousness or intent’.

Ecotherapy is used as an umbrella term for nature-based methods of physical and psychological healing.

Ecotherapy may be seen as an umbrella term for nature-based methods of physical and psychological healing representing a new form, or a new modality, of psychotherapy that enlarges the traditional scope of treatment to include the human–nature relationship

(Chalquist, 2013; Hasbach, 2012).

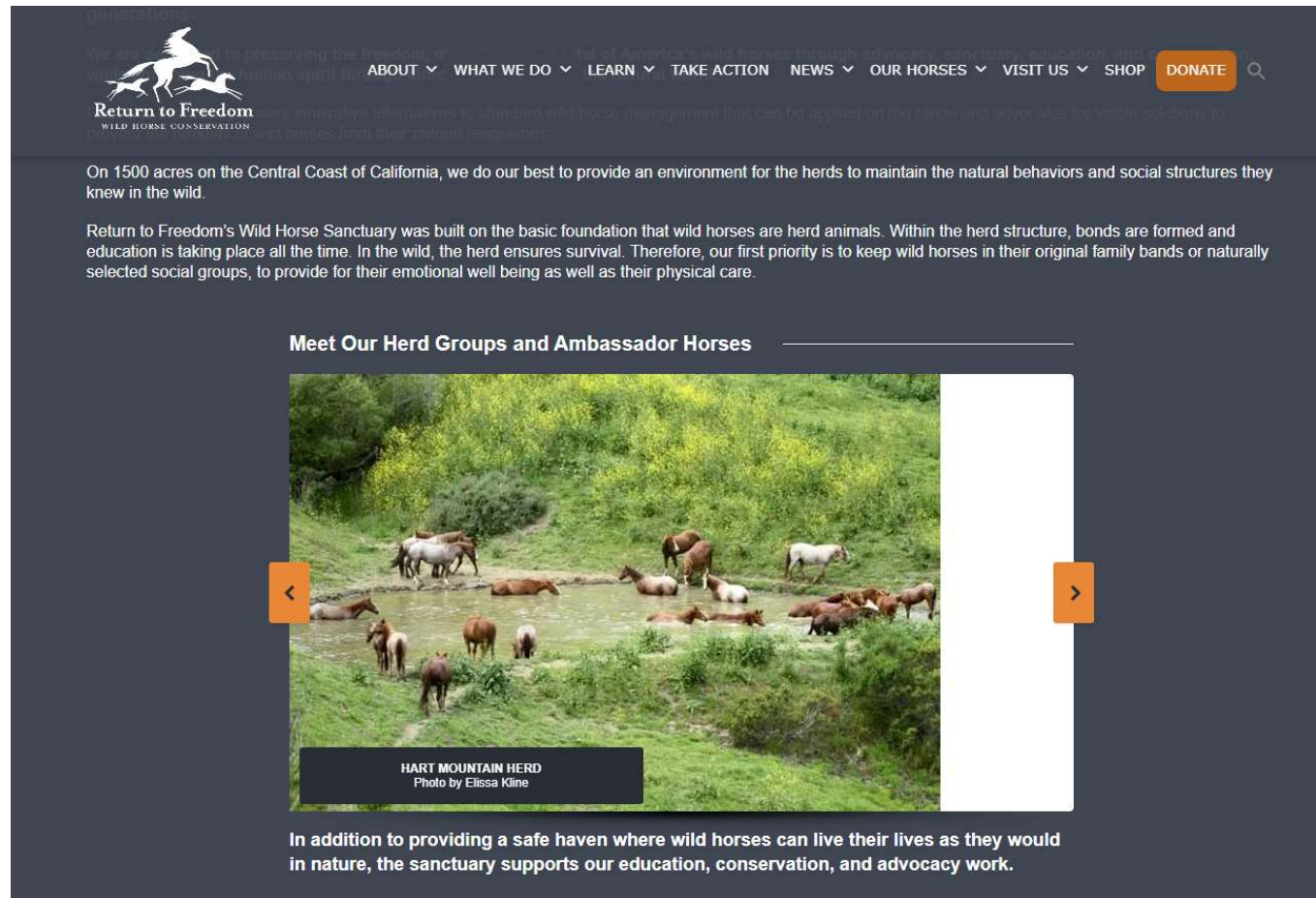
Contact may be divided into three types:

reality contact is awareness of people, places, things and events;

affective contact is awareness of distinct moods, feelings and emotions;

and communicative contact is the symbolization of reality contact and affective contact to others

(Dekeyser et al., 2008; Solomon, 2010).




**Return to Freedom**  
WILD HORSE CONSERVATION

ABOUT ▾ WHAT WE DO ▾ LEARN ▾ TAKE ACTION NEWS ▾ OUR HORSES ▾ VISIT US ▾ SHOP DONATE 🔍

On 1500 acres on the Central Coast of California, we do our best to provide an environment for the herds to maintain the natural behaviors and social structures they knew in the wild.

Return to Freedom's Wild Horse Sanctuary was built on the basic foundation that wild horses are herd animals. Within the herd structure, bonds are formed and education is taking place all the time. In the wild, the herd ensures survival. Therefore, our first priority is to keep wild horses in their original family bands or naturally selected social groups, to provide for their emotional well being as well as their physical care.

### Meet Our Herd Groups and Ambassador Horses



HART MOUNTAIN HERD  
Photo by Elissa Kline

In addition to providing a safe haven where wild horses can live their lives as they would in nature, the sanctuary supports our education, conservation, and advocacy work.

The horse has, through evolutionary necessity, developed high sensitivity and responsiveness to body language, including humans' (Johansen, Wang, Binder and Malt, 2014).

These encounters can provide a 'bodily experience... in an expressive gesturing landscape, **in a world that speaks**' (Abram, 1996, Totton, 2011).

Return to Freedom  
WILD HORSE CONSERVATION

ABOUT ▾ WHAT WE DO ▾ LEARN ▾ TAKE ACTION NEWS ▾ OUR HORSES ▾ VISIT US ▾ SHOP [DONATE](#) 🔍

*Take Action for Wild and Domestic Horses and Burros*

LEARN

ADVOCACY IN ACTION

JOIN OUR CAMPAIGN

OPPOSE SLAUGHTER

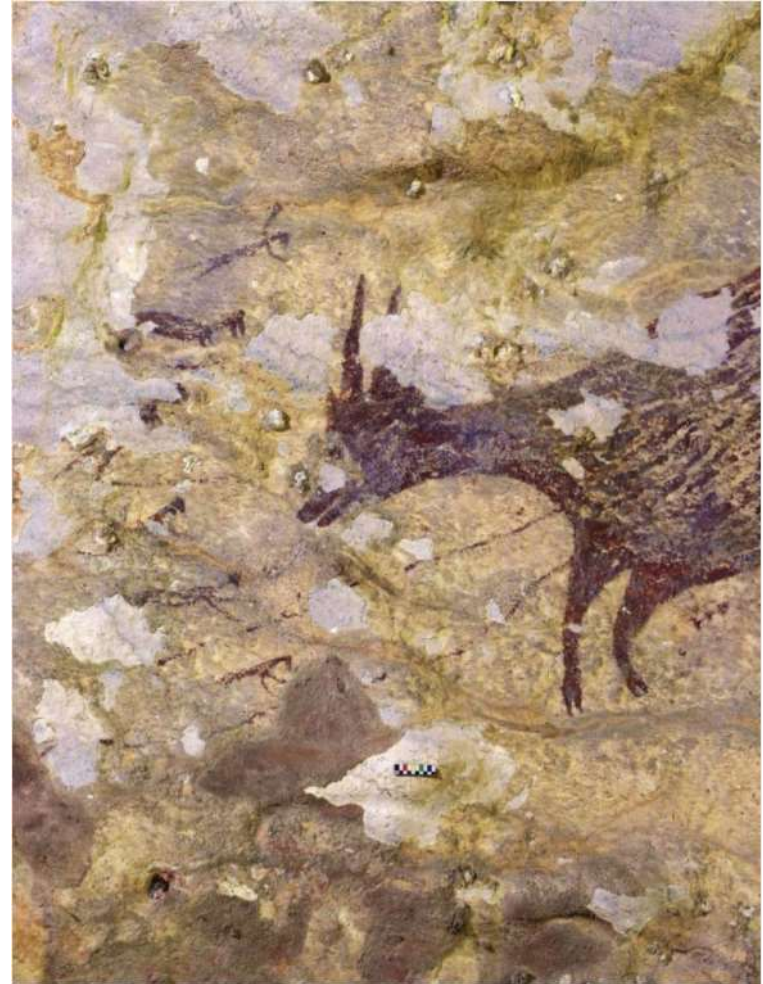
YOUTH IN ACTION

VOLUNTEER



## Εισάγοντας τον λόγο της φύσης στις θεραπείες

Μοτίβα αλληλεπίδρασης

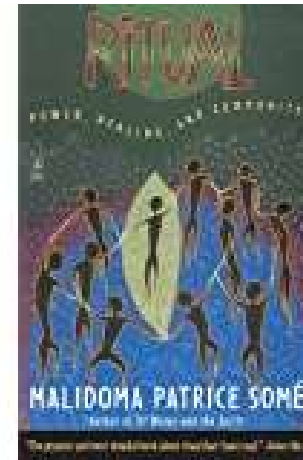


Η αρχαιότερη γνωστή σπηλαιογραφία στον πλανήτη, ηλικίας 44.000 ετών

# Nature language into therapeutic process

## Interaction patterns

- sitting by fire
- sleeping under the night sky
- walking the edges of nature
- being immersed in water
- recognizing and being recognized by non-human other
- caring for another being.



opportunities for encounters between the person and nature that deeply, subtly *touch on* or *attend to* an issue they are working on.

reawaken deeper feelings of connection, belonging and awareness

## Hippocratic medicine (our modern medicine) and Asklepian healing

... prepared the patient for an encounter with the divine: 'This was no visit to a doctor who simply administers medicine; it was an encounter with the naked event of healing itself' (Kerenyi, 1959)



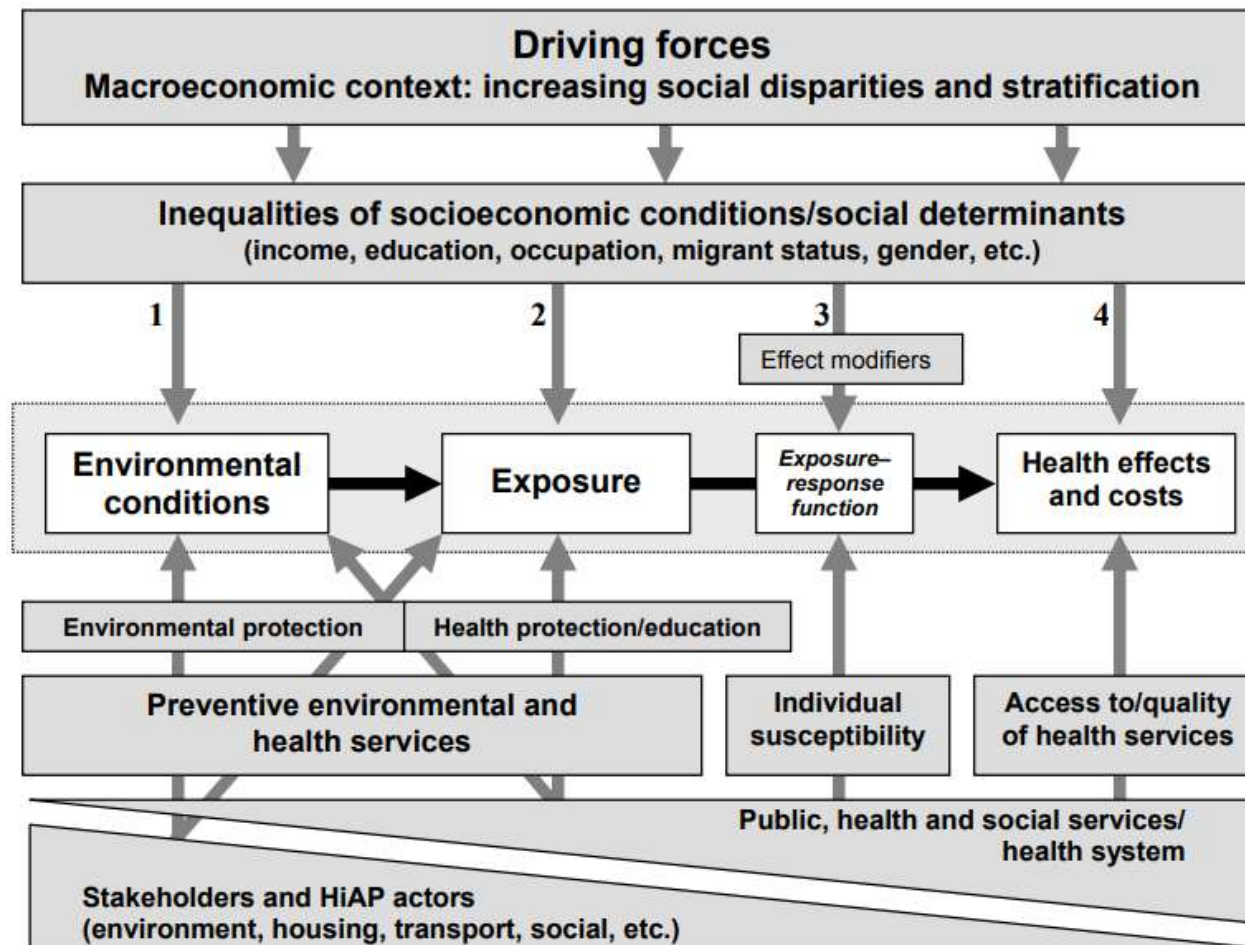
ΑΣΚΛΗΠΕΙΟ ΤΗΣ ΕΠΙΔΑΥΡΟΥ: ΤΟ ΜΕΓΑΛΥΤΕΡΟ ΘΕΡΑΠΕΥΤΗΡΙΟ ΤΟΥ ΑΡΧΑΙΟΥ ΚΟΣΜΟΥ



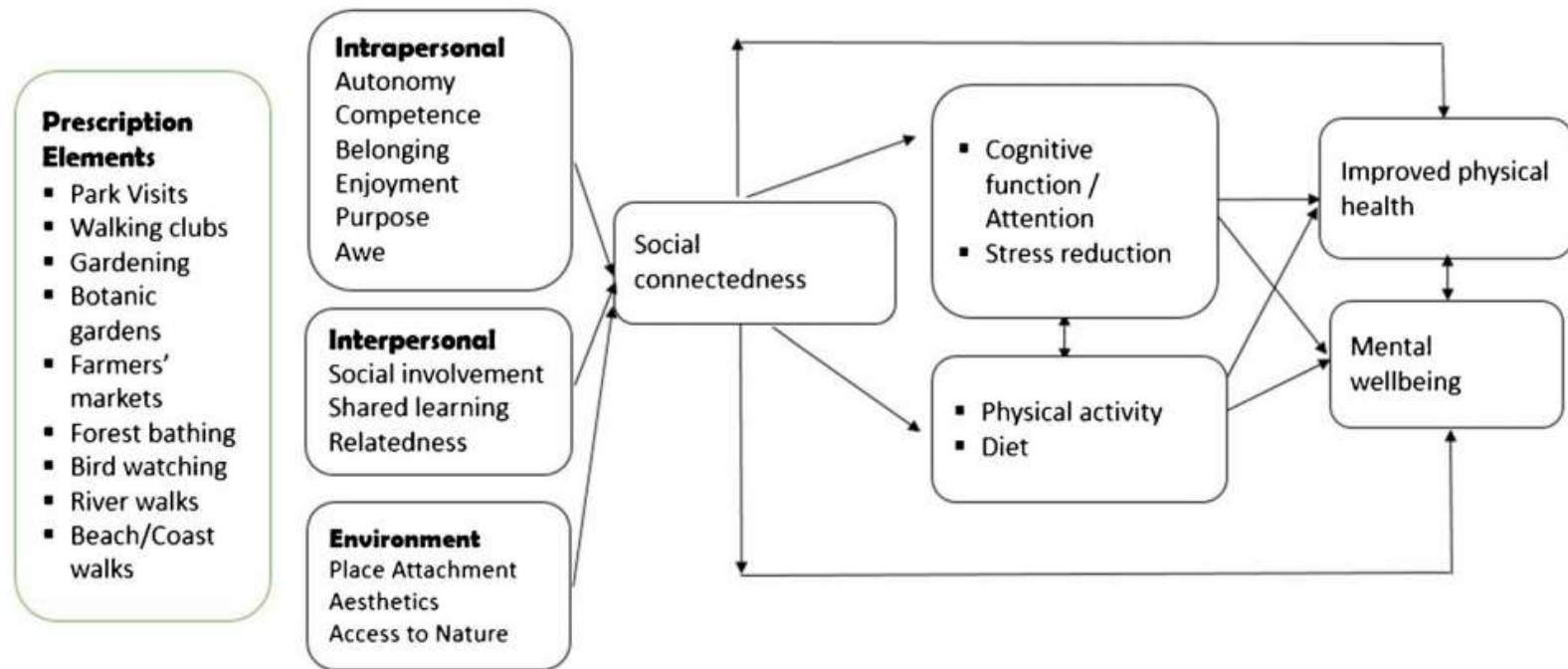
**Environment and health risks:  
a review of the influence and effects  
of social inequalities**



Fig. 1. The WHO framework model on social inequalities and environmental risks



## Nature-based Social Prescribing



**Contextual Factors:** Gender, Race-Ethnicity, Age, Mobility, Income, Education, Sociocultural History, Time

Conceptualizing nature-based social prescriptions as an intervention to address social connectedness

Nature-Based Social Prescribing in Urban Settings to Improve Social Connectedness and Mental Well-being: a Review

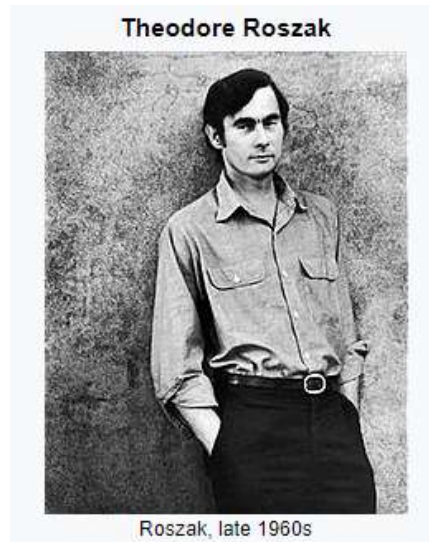
M. A. Leavell<sup>1</sup> · J. A. Leiferman<sup>2</sup> · M. Gascon<sup>3,4,5</sup> · F. Braddick<sup>6,7</sup> · J. C. Gonzalez<sup>6</sup> · J. S. Litt<sup>1,8</sup>

## Η απόκριση της ψυχολογίας στην περιβαλλοντική κρίση

Περιβαλλοντική  
ψυχολογία

+

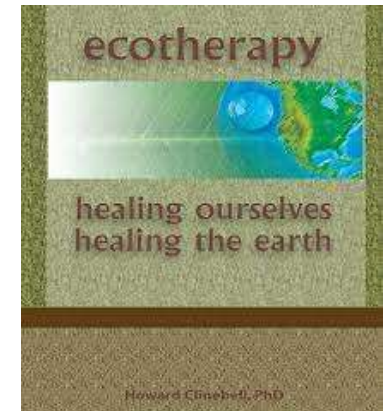
εστίαση πολιτικών  
γεγονότων



«The Voice of the Earth (1992)» : Ecopsychology

Ο Paul Shepard (1925-1996), ήταν ίσως ο πρώτος κοινωνικός επιστήμονας που έκανε τη σύνδεση μεταξύ ψυχικής ασθένειας και της απομάκρυνσης του ανθρώπου από το φυσικό περιβάλλον στο βιβλίο του, Nature and Madness (1982)

Howard Clinebell (1996) εισήγαγε για πρώτη φορά τον όρο οικοθεραπεία(**ecotherapy**), θέτοντας μια μορφή «οικολογικής πνευματικότητας»



σύμφωνα με την οποία μια ολιστική σχέση με τη φύση περιλαμβάνει τόσο την ικανότητα της φύσης να μας φροντίζει-θρέφει , μέσω της επαφής μας με φυσικά τοπία και χώρους, όσο και την ικανότητά μας να ανταλλάξουμε αυτήν την θεραπευτική σύνδεση μέσω της «ικανότητάς» μας να φροντίζουμε την φύση (nurture nature).



## Η εξέλιξη της οικοθεραπείας

1990-2000

Σύνδεση με κινήματα

Ειρήνη-εργασία, πυρηνικά, εκοφεμινισμός,  
εσώτατη ψυχολογία (βάθους), ψυχική  
λογοτεχνική

Μετά το 2000

Έρευνες για σύνδεση οικοθεραπείας με πολιτισμικά  
στοιχεία , περαιτέρω έρευνες και καινοτόμες  
πρακτικές όσο και εκπαιδευτικές πρακτικές οδήγησαν  
στην ενσωμάτωση ευρύτερων αντικειμένων όπως

της κλιματικής αλλαγής,

των θεραπειών μετατραυματικού stress

των οργανικών σωματικών παθήσεων

της περιβαλλοντικής κοινωνιολογίας

των «πολύπλευρων» θεραπειών (εφήβων) σε  
εξωτερικούς χώρους

## Η εξέλιξη της οικοθεραπείας



Στην εξέλιξη της οικοθεραπείας, μπορεί κανείς να διακρίνει μια δημιουργική ένταση(-τριβές)

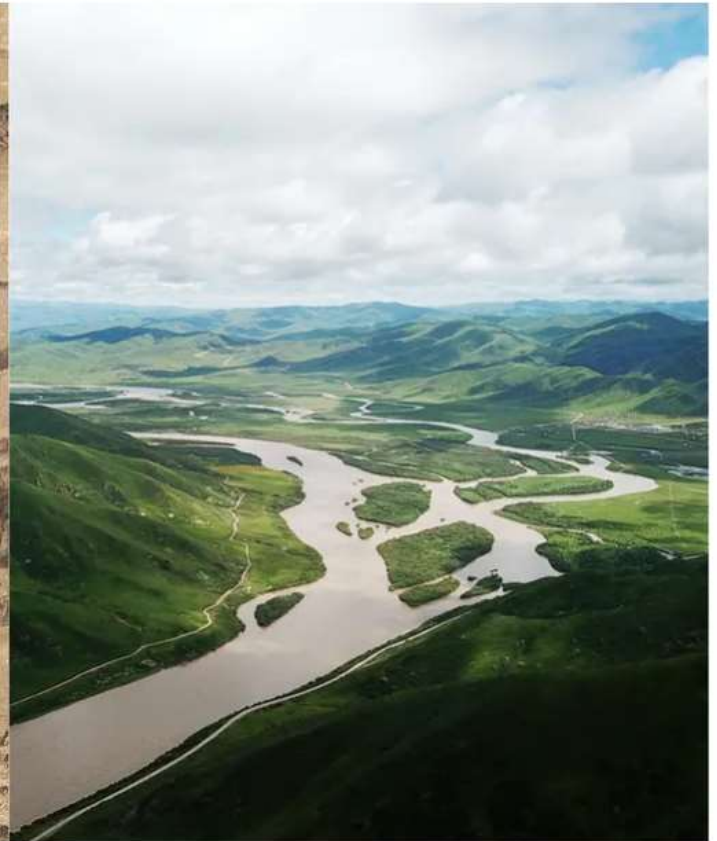
μεταξύ θεμελιωδών καινοτομιών και ερευνητικών πρωτοβουλιών

και της ενσωμάτωσης πρόσθετων προοπτικών θεραπείας

στα ολιστικά, ανθρωπιστικά και διαπροσωπικά πλαίσια που είχαν εξέχουσα θέση σε προηγούμενα κύματα οικοθεραπείας.



## 'Our biggest challenge? Lack of imagination': the scientists turning the desert green



▲ The Loess plateau, in China, in 2007, left, and transformed into green valleys and productive farmland in 2019. Composite: Rex/Shutterstock/Xinhua/Alamy

In China, scientists have turned vast swathes of arid land into a lush oasis. Now a team of maverick engineers want to do the same to the Sinai

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▲ The Sinai peninsula today, and how it could look after regreening. Composite: The Weather Makers



What turned the Sinai into a desert was, most likely, human activity. Wherever they settle, humans tend to chop down trees and clear land. This loss of vegetation affects the land's ability to retain moisture. Grazing

## Κλέφτικα Τραγούδια

Αναφορές στον φυσικό κόσμο είναι πλούσιες και έντονες με ψυχικό κοινωνικό οικονομικό και πολιτικό λόγο και θεραπευτικές συνδέσεις

Ο πλάτανος χρησιμοποιείται πολύ συχνά στα δημοτικά τραγούδια, γιατί είναι δέντρο που απαντάται πολύ συχνά στην ελληνική φύση και ζει πολλά χρόνια. Έτσι λοιπόν, χρησιμοποιείται για να εκφράσει τη λεβεντιά, την υπομονή και την επιμονή των Ελλήνων κατά την τουρκοκρατία.



Οι κλέφτες θεωρούν τους εαυτούς τους σε αντιδιαστολή με τους «νοικοκύρηδες». Οι «νοικοκύρηδες» είναι αυτοί που έχουν μείνει στο σπίτι τους και έχουν περιουσία που καλλιεργούν. Τα «αμπελοχώραφα» είναι η περιουσία του «νοικοκύρη». Αυτό υποδηλώνει ότι η φύση αποτελεί «αλούτο» για τον άνθρωπο, καθόσον η ασχολία με την καλλιέργεια χωραφιών αποτελεί αποδοτική εργασία.

«(...)Βασίλη, κάτσε φρόνιμα, να γίνης νοικοκύρης,  
για ν' αποχτήσης πρόβατα, ζευγάρια κι' αγελάδες,  
χωριά κι' **αμπελοχώραφα**, κοπέλια να δουλεύουν.  
-Μάννα μου εγώ δεν κάθομαι να γίνω νοικοκύρης,  
να κάμω **αμπελοχώραφα**, κοπέλια να δουλεύουν.(...)»  
(Λεμπέση, 2015, σελ.33)