Nature involvement as a positive psychology intervention

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“[As] psychologists we have heard but little about gardens, about foliage, about forests and farmland ...

Perhaps this resource for enhancing health, happiness, and wholeness has been neglected long enough.”

- Kaplan & Kaplan
1989, p. 189
Nature involvement

www.therockpile.com/photo-contest-2012/photo-contest-people-in-nature
Nature involvement

• incorporating elements of nature into therapeutic work
  (Berger, 2008; Berger & McLeod, 2006; Burns, 1998; Buzzell & Chalquist, 2009; Hasbach, 2012)

• however, nature is under utilized as a lifestyle intervention aimed at promoting flourishing in clients
  (Walsh, 2011)
to date, the bulk of experimental research has focused on brief exposures to nature

(Berman, Jonides, & Kaplan, 2008; Berman et al., 2012; Mayer, Frantz, Bruehlman-Senecal, & Dolliver, 2009; Ryan et al., 2010; Weinstein, Przybylski, & Ryan, 2009)
Nature involvement

- examine experimentally, effects of longer-term nature involvement
- over a two-week period
- ongoing time in nature vs. time spent in control activity
Nature involvement

nature experiences

awe (elevation)  meaning  positive affect

Nature involvement

• eudaimonic well-being:
  ~ elevation
  ~ sense of meaning

• hedonic well-being:
  ~ positive affect

galleryheart.com/2012/japanese-cherry-blossom-wallpapers
Hypotheses

- net-positive affect

- elevation: warmth, openness, inspired
  (Haidt, 2003; Huta, 2013)

- sense of meaning
Nature involvement

Hypotheses

• self-concordant motivation (SCM)

• predicts sustained interest and effort in any given activity
Nature involvement

Also examined

• nature involvement as impactful for wide variety of individuals - effect of nature connectedness

• kinds of nature activities and settings chosen
Nature involvement

Sample

- $N = 84$ undergraduate students
- random assignment
  - nature: $n = 43$
  - control: $n = 41$
Nature involvement

Measures: motivation

• Self-Concordant Motivation (SCM)
  (Sheldon & Lyubomirsky, 2006)

• 4 items outlining reasons for engaging in an activity

• external, introjected motivation
• identified, intrinsic motivation
Nature involvement

Measures: well-being

• Positive & Negative Affect (PANAS) 
  (Watson, Clark, & Tellegen, 1988)

• netPositive Affect (netPA) score was calculated: PA – NA
  (Baumeister, Vohs, Aaker & Garbinsnky, 2013; 
  Sheldon, Kasser, Smith, & Share, 2002)
Nature involvement

Measures: well-being

- Elevation - Elevating Experiences  
  (Huta & Ryan, 2010)

- Meaning – Sense of Meaning  
  (Huta & Ryan, 2010)
Nature involvement

Measures: nature connection

• Connectedness to Nature

(Mayer & Frantz, 2004)
Nature involvement

Procedure

• 3-part study:

  1. initial group session
     ~ random assignment
     ~ instructions
     ~ pre-measure of motivation and affect
Nature involvement

Procedure

• 3-part study:

  2. the next two weeks
    ~ assigned daily activity
    ~ daily activity sheet
    ~ daily measure of affect
Nature involvement

Procedure

• 3-part study:

3. final group session
   ~ return Daily Mood and Activity Recording sheets
   ~ post-measures of affect, elevation, meaning, connectedness to nature

H-A. Passmore, 2014
Nature involvement

Results
Nature involvement

Results

• elevation: higher in nature group  
  $d = 0.63$

• meaning: higher in nature group  
  $d = 0.37$

• post netPA: higher in nature group  
  $d = 0.47$
Nature involvement

Results

• on days engaged in assigned activity, daily netPA higher in nature group compared to control group

\[ d = 0.82 \]

• no difference in daily netPA on days not engaged in assigned activity
Nature involvement

Results

• self-concordant motivation: higher in nature group
d = 0.81

• motivation predicted length of time spent engaged in assigned activity
  \( r = 0.35 \)

• more time spent on activity in nature group
  \( d = 3.22, \quad \text{nature: } M = 92.40, \text{ control: } M = 21.88 \)
Results

- are beneficial effects of nature involvement moderated by connectedness to nature?
Results

connectedness to nature

\[ \beta = 0.79^* \]

\[ \beta = 0.78^* \]

nature involvement

\[ \beta = 0.28^* \]

\[ \beta = 0.22^* \]

elevation netPA
Nature involvement

Results

connectedness to nature

nature involvement

\[ \beta = \text{ns} \]

elevation netPA
Nature involvement

Results

- beneficial effects of nature involvement are NOT moderated by connectedness to nature
Nature involvement

Qualitative Results
walk

Study

Backyard

Enjoy

Sit

Green

Relax

River

Park

Listen

Wind

Neighbourhood

Smell

Sun

Run

Eat bugs fresh

Birds

Chirping

Flowers

Warm

Observe

Yardwork/garden
Nature involvement

- ongoing nature involvement increased both hedonic & eudaimonic well-being

- effect sizes larger than average effect size of positive psychology interventions on well-being

(Bolier et al., 2013)
Nature involvement

- boosted post-involvement well-being and daily well-being
- simple, close-to-home nature activities

Nature involvement

- support for prescribing nature activities to clients to enhance well-being
- intrinsically motivating - highly self-concordant

Nature involvement

• no need for sweeping life-style changes to increase well-being

• effective regardless of the degree of trait nature connectedness

Nature involvement as a positive psychology intervention

Thank you