



Urban Nature Benefits: Psycho-Social Dimensions of People and Plants



America is a nation of cities and towns – more than 80 percent of the U.S. population lives in urban areas. Plants, forests and ecosystems are important in cities. People are working in many cities to preserve existing natural areas and restore or create new ones. Scientific research tells us that urban plants provide many benefits. We know that plants improve the environment by contributing to better air and water quality and helping to reduce energy use.

Social scientists study another level of services that plants provide for urban residents. Parks, green spaces and trees are more than the “lungs of the city” or “pollution scrubbers.” They affect our everyday moods, activities and emotional health. They improve our quality of life in ways that are sometimes understood, often underestimated. Whether we are active in urban nature (planting trees, growing gardens) or passively encounter city green (such as a stroll through a park), we experience personal benefits that affect how we feel and function. Proof of psychological and social benefits gives us more reasons to grow more green in cities! Below are examples from many studies.

Individual Benefits

Urban life can be demanding – juggling schedules, work, meeting daily needs and commuting. Our urban open spaces and parks can provide welcome relief, in surprising ways. Everyday nature in cities can help us to calm and cope, to recharge our ability to carry on.

RESTORATIVE EXPERIENCES – Many of the tasks of work and study demand directed attention for long periods of time. As we psychologically filter out extraneous information and distractions our minds can become cognitively fatigued. “Directed attention fatigue” can result in feelings of anxiety or stress, irritability with others and an inability to concentrate. Research has

shown that brief encounters with nature can aid cognitive fatigue recovery, improving one’s capacity to concentrate. Psychologists Rachel and Stephen Kaplan define the characteristics of natural places that are restorative – being away, extent, fascination and compatibility.

WORKER ATTITUDES AND WELL-BEING – Dr. Rachel Kaplan surveyed deskworkers about their rate of illness and level of job satisfaction. Some study participants could view nature from their desks, others could not. Those without, when asked about 11 different ailments, claimed 23% more times of illness in the prior six months. Desk workers with a view claimed the

following satisfactions more often than their non-view colleagues: 1) found their job more challenging, 2) were less frustrated about tasks and generally more patient, 3) felt greater enthusiasm for the job, 4) reported feelings of higher life satisfaction, and 5) reported better overall health.

STRESS REDUCTION – Stress is often talked about but little understood. We do know that constant stress can impact our immune system as well as diminish the ability to cope with challenging situations. Roger Ulrich

has done studies that measure the physiological responses of our bodies (such as blood pressure and heart rate) brought on by stress. He has found that people who view nature after stressful situations show reduced physiological stress response, as well as better interest and attention and decreased feelings of fear and anger or aggression. An interesting effect found in recent studies on driving and road stress is called the “immunization effect” — the degree of negative response to a stressful experience is less if a view of nature preceded the stressful situation.

Families, Children and Youth

Our families and young people are the foundation and future of our society. Many factors, including adequate education and health care, are essential for their strength and success. In addition, children and families need supportive environments that encourage positive behaviors and provide a respite from the challenges of urban living. Recent research reveals the subtle advantages of urban green spaces.

REDUCED DOMESTIC CONFLICT – Surveys of households in Chicago’s public housing have explored the role of trees on household interpersonal dynamics. The housing projects’ apartment buildings are nearly identical, differing only in the amount of trees and grass growing around them. Drs. Bill Sullivan and Francis Kuo report that residents living in buildings with trees use more constructive, less violent methods to deal with

conflict. Residents with green views report using reasoning more often in conflicts with their children and significantly less use of severe violence. They also report less use of physical violence in conflicts with partners compared to those living in buildings without trees.

LESS SCHOOL AGGRESSION AND VIOLENCE

– School violence programs help students to control aggressive behavior with training in conflict resolution and peer intervention. Physical environments around a school also appear to play a role. Education scientists at the University of Michigan have found that scenes of neighborhoods with blighted streetscapes are perceived as dangerous and threatening. Those that are more cared for, including tended landscapes, contribute to reduced feelings of fear and violence.

REFERENCES AND RESOURCES

- Dwyer, J.F., H.W. Schroeder, & P. H. Gobster. 1994. The Deep Significance of Urban Trees and Forests. In R.H. Platt, R.A. Rowntree, P.C. Muick (editors), *The Ecological City: Preserving & Restoring Urban Biodiversity*. Amherst: University of Massachusetts Press.
- Kaplan, R. & S. Kaplan. 1989. *The Experience of Nature: A Psychological Perspective*. Cambridge: Cambridge University Press.
- Lewis, C.A. 1996. *Green Nature/Human Nature: The Meaning of Plants in our Lives*. Chicago: University of Illinois Press.
- Relf, D. (editor). 1992. *The Role of Horticulture in Human Well-Being and Social Development*. Portland, OR: Timber Press.



For more information, contact...

Kathy Wolf, Ph.D. at the
Center for Urban Horticulture, University of Washington, Seattle, WA 98195-4115
Phone: (206) 616-5758; Fax: (206) 685-2692;
E-mail: kwolf@u.washington.edu; Web site: www.cfr.washington.edu/enviro-mind