

Managing Workplace Fatigue- Attention Restoration Theory

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This summary and accompanying video present the theory of Attention Restorative and provide key references and resources. Attention Restoration theory is particularly attractive to occupational therapists because it is congruent with how we understand occupation to be influenced by, and an influence upon, the environment.

What is Attention Restoration Theory?

Attention Restoration theory is the concept that restorative environments can rest and restore an individual's capacity for directed attention when it becomes fatigued (Kaplan, 1995).

Key Definitions:

- ***Directed attention:*** attention that requires conscious effort and can therefore become fatigued with prolonged, intense mental effort (Kaplan, 1995).
- ***Fascination:*** attention that is effortless or involuntary, facilitated by restorative environments (Kaplan, 1995)
- ***Restorative experiences or environments:*** create the possibility of restoring directed attention; these are inherently fascinating and hold a person's attention without effort (Kaplan, 1995).

The concept of two types of attention was introduced by William James. When attention is held by what individuals experience as innately fascinating environments directed attention is able to rest and recover from fatigue (Kaplan, 1995). Kaplan (1995) argued that natural environments were the most restorative, and best fit his four criteria of a restorative environment.

Kaplan's Four Qualities of Restorative Environments

- 1) ***Fascination:*** sustains effortless, involuntary attention.
- 2) ***Being away:*** the feeling of a new environment or of "getting away".
- 3) ***Extent:*** the environment has enough depth to allow it to feel like a change, new and novel.
- 4) ***Compatibility:*** the individual's purposes and the environment must be well matched.

(Kaplan, 1995)

Why is Directed Attention Important?

Directed attention is important for many aspects of problem solving and inhibition of irrelevant impulses (Kaplan, 1995). Directed Attention fatigue may affect an individual's selection capacity, leading to an inability to attend only to information that is relevant to the current problem. For example, an occupational therapist whose directed attention is fatigued may find her thoughts wandering from clients in a group therapy setting and is unable to focus her attention on clients' comments and behaviors. This inability to attend, coupled with other symptoms of workplace fatigue (such as limited insight and finding it difficult or impossible to see further than the immediate, obvious solution, and the inability to inhibit irrelevant impulses, such as distracting sensory input) may be problematic, as perception of the material being attended to during decision making may be altered (Kaplan, 1995). Further, directed attention is related to irritability (Berto, 2005). This mental fatigue may have serious workplace consequences and many accidents have been attributed to directed attention fatigue (Kaplan, 1995).

What to do?

Adequate sleep helps to restore directed attention (Kaplan, 1995), but during the day napping for many occupational therapists is not an option. Taking breaks using the strategy of attention restoration theory while working on intensive projects or performing sustained work may be beneficial.

Attention restoration theory can often be easily used as a strategy to improve directed attention, as it is very accessible and has no known side effects (Berman et al 2008; Kaplan, 1995). Some workplace solutions might include having murals or photos of nature on walls to allow employees to take these breaks (Felsten, 2009). Berto (2005) found that simply looking at photos of nature increased directed attention after being mentally fatigued. This research was also supported by Berman, Jonides & Kaplan (2008). Additionally, Berto (2005) compared photos of natural areas to photos of urban areas and geometric patterns and found that only the photos of nature led to this improvement (Berto, 2005). Studies have also demonstrated that as little as 10 minutes outside in restorative/natural environments or looking at nature photos when feeling this mental fatigue can help to regain directed attention (Berto, 2005; Berman et al., 2008).

Resources

- Dr. Marc Berman, University of South Carolina - "The Restorative Benefits of Interacting with Nature" 1 hour in-depth lecture posted on YouTube <https://www.youtube.com/watch?v=eS09ZOYjN10>
- Largo-Wight et al (2011) Effects of Nature Contact on Employee Stress and Health. Public Health Reports / 2011 Supplement 1 / Volume 126 <http://www.publichealthreports.org/issueopen.cfm?articleID=2653> An open access review of the evidence that can be shared with Fatigue Risk Management program and Occupational Health and Safety team members.

References

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