

**OBIE TRAINING THROUGH GAMING:
COGNITIVE ENHANCEMENT AND DIGITAL TECHNOLOGIES SYNOPSIS
Elkhonon Goldberg, PhD, ABPP-CN**



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The number of individuals aged 60 or over has tripled since 1950, and may reach 2.1 billion by 2050. Senior citizens present with special needs, and as their share of the population grows, so does the magnitude of challenge in addressing these needs. Various therapies and activities are provided to the seniors; however, their repertoire is often limited, and the therapists are at a loss how to engage the participants in a meaningful and impactful way.

The pandemic further complicates the problem. The seniors cannot be visited by their families, and their mobility is restricted. Because the seniors are particularly vulnerable to COVID-19, extra care must be taken to minimize their exposure to potential sources of infection, further limiting the range of activities available to them.

Cognitive decline, social isolation, and physical immobility are among the foremost problems encountered by the seniors; and the use of games, delivered with the help of digital technologies, has been steadily gaining popularity in addressing them, both as a form of therapy and as a way of enriching leisure activities. The concern was sometimes voiced that even when game performance improved, no meaningful generalization to real-life abilities and skills took place. However, evidence is growing that generalization can take place, both in normal aging and in various clinical populations. Furthermore, it has been shown that targeted cognitive exercises can actually change the underlying neural substrates. This strengthens the rationale for using **specially designed games for cognitive enhancement** both in healthy aging and in a wide range of clinical disorders.

To maximize their impact, **therapies for the seniors must integrate cognitive, physical, and social stimulation**. Obie accomplishes such integration like no other therapeutic tool does:

- Obie is a suite of attractively designed games challenging a **wide range of cognitive functions**.
- While other cognitive games are played on computer or tablet screens, Obie games are **projected on a large physical area**. As a result, Obie enables physical action and social interaction embedded in the cognitive gaming process.
- You cannot step into a computer game delivered on a laptop or a tablet. But you can literally step into an Obie game, bringing the level of **immersion and physicality** to a whole different level.
- Furthermore, because the projection size allows several players to “step into the game” simultaneously, additional level of **socialization** is attained through shared participation.

In order for a therapeutic activity to be effective, **it must also be enjoyable**. No matter how scientifically rigorous a game is, seniors will stop playing it, if it is boring or perceptually unattractive; this has been the undoing of numerous game-based therapies. Obie games are aesthetically beautiful, interesting, and entertaining. Seniors genuinely enjoy playing them again and again.

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Finally, **the safety factor.** Because Obie technology is based on the projection of light, contact with devices shared by multiple individuals is limited, which minimizes the risk of infection during the pandemic and after.

To summarize, Obie offers a unique enhancement tool for therapy and leisure. Obie technology is advanced and user-friendly. Obie games are perceptually rich, cognitively challenging, physically and socially inviting, engaging and safe. They can be used both with healthy seniors; with the seniors suffering from cognitive decline; and with a wide range of clinical conditions.

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