



Issue 45

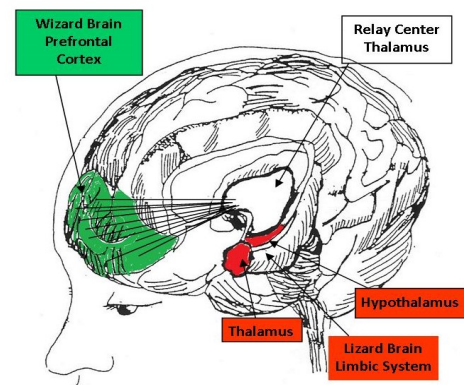
Research Supporting BrainWise

BrainWise was inspired by my experience as a public health nurse. Genetic and other organic causes underlie many illnesses, but I also saw individuals and families whose lives were impaired by poor choices that included substance abuse, unsafe sex, poor diets, lack of medical compliance, and involvement in toxic relationships. I helped people by providing them with health resources and services, but later realized that this traditional medical model left out what we know now is a critical change agent -- individuals need to understand how using their brains can help them change behaviors that harm themselves and others. [1]

My aha! moment happened when I read about brain research that showed survival instincts are hardwired but thinking skills (executive functions) are learned. I assumed my clients and patients knew how to seek help, recognize red flag warnings, manage their emotions, consider the consequences of their choices, show empathy, and other behaviors underlying responsible decision-making.



Brain Image



BrainWise Brain Drawing with Connections

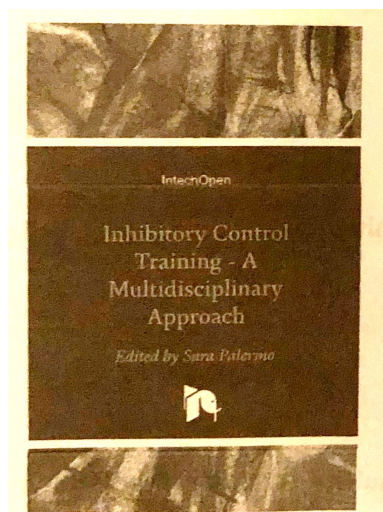
Dr. Eric Kandel's research on neuroplasticity - how the brain forms neural connections when it learns something new - was awarded

the 2000 Nobel Prize in Medicine and inspired me to create a simple and concrete way to explain the importance of learning the 10 Wise Ways to stop and think. We thus teach that learning and reinforcing thinking skills builds brain connections and forms the foundation for health prevention and mental wellness.

[1] In 2019, Former NIMH Director Tom Insel, M.D. recognized this missing prevention piece when he said, "The whole mission is to improve diagnosis and therapeutics and reduce the burden of mental illness. In the thirteen years I was there, I spend about 20 billion dollars of taxpayer's money to try and deliver on that mission, and I think I failed." ([Link to Issue 38 BrainWise newsletter](#))

Research Requests

Members of the BrainWise community and others frequently ask for research citations which show that teaching the 10 Wise Ways has demonstrable and evidence-based positive outcomes. Updated professional journal references supporting the concepts BrainWise teaches can be found in a new publication. [Marilyn Welsh, Ph.D.](#), professor of educational psychology at the University of Northern Colorado, [Jared Greenburg, M.D.](#), psychiatrist with the Los Angeles Veterans Administration Health Services, and I are co-authors of a recently published chapter, **"Life Stress and Inhibitory Control Deficits: Teaching BrainWise as a Neurocognitive Intervention in Vulnerable Populations."** The [chapter](#) appears in *Inhibitory Control Training - A Multidisciplinary Approach*, edited by Sara Palermo and Massimo Bartoli, University of Turin, Italy.



**Sara Palermo, Ph.D.,
Professor, University of
Turin, Italy**



**The chapter on
*BrainWise as a
Neurocognitive
Intervention* appears in
this book**

Inhibitory Control, Executive Function and Self-Regulation. We describe inhibitory control in the context of executive function and self-regulation, and present evidence that behaviors are negatively impacted by stressful life events such as poverty, maltreatment, homelessness, and mental illness. Life stressors disrupt the development and functioning of crucial brain systems and have been found to contribute to a cascade of negative health outcomes starting with social and emotional cognitive impairment and the consequent adoption of health-risk behaviors which can result in

family and employment problems, disease, disability, and early death.

We discuss brain networks that mediate self-regulation as well as research that shows the role of the prefrontal cortex and explains the brain's vulnerability to life stress. The research includes the negative impact that prominent stressors have on inhibitory control, executive function, and self-regulation. In many cases, stresses co-occur with cumulative negative effects that impact education, employment, physical health and mental wellness. We include research that conclusively shows that thinking skills are learned behaviors and that when they are not developed, are only partially learned, or are compromised by adversity and stress, they negatively impact the physical and mental health of individuals, families and communities.

BrainWise Research Update

The chapter describes the BrainWise program's multi-sensory teaching strategies, its emphasis on reinforcement, and its universal application with participants across cultures, age, sex, socioeconomic status (SES), and developmental abilities. Next, we present updated research supporting each of the 10 Wise Ways and show why they form a foundation and can be integrated into numerous prevention/intervention strategies. These are indicators of the program's comprehensiveness and universal application.



**These pictures show
BrainWise in action:**



**in the US, and
around the world**



**BrainWise helps
children, teenagers
and adults.**

The program's universal use is highlighted by published research on BrainWise taught to homeless men that found that men in the treatment group improved on a much wider range of executive functions, including inhibitory control, coping and self-efficacy, and BrainWise knowledge (the 10 Wise Ways) than men in a control group that did not learn the 10 Wise Ways. These outcomes provided evidence that BrainWise positively influences critical skills for adaptive functioning and resilience, behaviors that help individuals accomplish daily challenges such as maintaining healthy relationships, holding jobs, and becoming productive members of society.



Marilyn and Jared are wonderful colleagues. Their professionalism and hours of work on the chapter made its publication possible. We present science, research, and a history of use as evidence that the BrainWise program is replicable, sustainable, and improves thinking skills. We are excited to be working with Jared on his upcoming study to teach BrainWise to previously homeless veterans with serious mental illness.

Thank you and Be BrainWise!



Dr. Pat

On a lighter note...



How Einstein's Brain Is
Different Than Yours



The BrainWise Program

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