

PAXIS Institute, an international prevention science company founded in 1998, is pleased to provide some of following resources to assist communities, provinces or states, or even whole nations to move toward population-level, universal prevention of mental, emotional, and behavioral disorders among young people, including the PAX Good Behavior Game.

The **scaling-up** principles and policy strategies are described in:



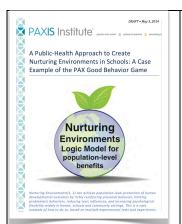
Available at:

www.researchgate.net/profile/Dennis_Embry/publications



- Review of PAX GBG at the National Registry of Evidence-Based Programs and Practices, please see: http://bit.ly/NREPP.
- What Is PAX GBG? Two page simple description, http://bit.ly/What-IS-PAX-April-2014
- Blog post about recent research showing PAX GBG causes protective phenotypic expression of Brain Derived Neurotropic Factor Genes (BDNF) http://bit.ly/DrEmbryCongressionalBriefing2014
- Entrepreneurial approaches to large-scale, sustainable implementation of evidence-based practices: Lessons from the PAX Good Behavior Game (A Congressional Briefing 12/4/2014), http://bit.ly/DrEmbryCongressionalBriefing2014
- A community story about implementing PAX GBG as example, http://bit.ly/AlbanyNYPAXGBG
- Video about implementing PAX GBG in 186 classrooms and 8 school districts, please see www.PAXGoodBehaviorGame.promoteprevent.org.
- Predicted impact of PAX GBG in each of the 50 states plus District of Columbia, please download: http://bit.ly/PAXGBG-50states-nov2014.
- Excel spreadsheet to calculate benefit in any political division, school or school district: http://bit.ly/PAXGBG-Local-Estimator
- Description of PAX GBG for end-users: http://bit.ly/WhatIsPAXDec2014
- Documentary special on Canadian Broadcasting Corporation: http://bit.ly/CBC-PayNow-Or-Later
- \$ 2009 Institute of Medicine Report on the Prevention of Mental, Emotional, and Behavioral Disorders Among Young People, http://bit.ly/IOMPREV.
- View TEDx talk on these issues, http://bit.ly/EmbryTEDxWhitehorseYukon

Please fee free to access these resources from PAXIS Institute to assist implementing proven, evidence based practices at population levels, including the PAX Good Behavior Game.



How does one take prevention science to a public-health scale to protect a whole population? This document prepared by PAXIS Institute integrates their successes from multiple efforts since the 1980s detail how this is happening today with the widespread implementation of the PAX Good Behavior Game in the United States and Canada, and now several other European countries. This paper highlights some of the methods being used in the Province-wide implementation in Manitoba, Canada

For a copy of this technical paper, please visit: https://www.researchgate.net/profile/Dennis_Embry/publications



The Communities That Care and Related Risk and Protective Factors Surveys have been quite useful in promoting prevention in communities and public policy since the 1990s. An unintended consequence of the model has been that some policy makers and communities over-emphasized a focus on one or two risk and protective factors, as a leverage point. The difficulty with this idea is that an individual risk or protective factor has a small impact, versus when multiple risk and protective factors are affected. This technical paper points out how a single strategy can affect changes multiple risk and protective factors. This technical paper lead the state of Washington to reimburse implementation of PAX Good Behavior Game.

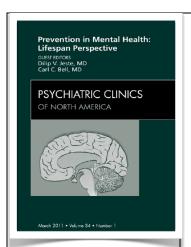
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Wilson, D. S., Hayes, S. C., Biglan, A., & Embry, D. D. (2014). Evolving the Future: Toward a Science of Intentional Change. Brain and Behavioral Sciences, 37(4), 395-416.

Humans possess great capacity for behavioral and cultural change, but our ability to manage change is still limited. This article has two major objectives: first, to sketch a basic science of intentional change centered on evolution; second, to provide examples of intentional behavioral and cultural change from the applied behavioral sciences, which are largely unknown to the basic scientific community. This landmark paper provides a broad theoretical and practical integration for evolving the future.

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Embry, D. D. (2011). Behavioral Vaccines and Evidence-Based Kernels: Non-pharmaceutical Approaches for the Prevention of Mental, Emotional, and Behavioral Disorders. Psychiatric Clinics of North America, 34(March), 1-34

The Institute of Medicine Report on the Prevention of Mental, Emotional and Behavioral Disorders Among Young People1 (IOM Report) provides a powerful map for how the United States might significantly prevent mental illnesses and behavioral disorders like alcohol, tobacco, and other drug use among America's youth. This article details key practical principles for a true public health approach.

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Embry, D. D., Lipsey, M., Moore, K. A., & McCallum, D. F. (2013). Best Intentions are Not Enough: Techniques for Using Research and Data to Develop New Evidence-Informed Prevention Programs. Emphasizing Evidence-Based Programs for Children and Youth: An Examination of Policy Issues and Practice Dilemmas Across Federal Initiatives. This paper was commissioned to help scientists and advocates think through how to develop an evidence-based program or practice when none exist.

Retrieved from Research Brief website:

http://aspe.hhs.gov/hsp/13/KeyIssuesforChildrenYouth/BestIntentio ns/rb_bestintentions.cfm

Embry, D. D., & Biglan, A. (2008). Evidence-Based Kernels: Fundamental Units of Behavioral Influence. Clinical Child & Family *Psychology Review, 11*(3), 75-113

This widely praised article introduces a powerful concept of fundamental units of behavioral influence, called evidence based kernels. The paper details 52 such "kernels" that have their own proof of behavioral effects. One can think of these as the "protein" assemblies that drive most evidence-based programs and practices. The power of kernels for changing outcomes is remarkable, which is well discussed in this paper.

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Embry, D. D. (2002). "The Good Behavior Game: A Best Practice Candidate as a Universal Behavioral Vaccine." Clinical Child & Family Psychology Review **5**(4): 273-297.

A "behavioral vaccine" provides an inoculation against morbidity or mortality, impacting physical, mental, or behavior disorders. A simple behavioral strategy based on applied behavior analysis called the Good Behavior Game (GBG), which reinforces inhibition in a group context of elementary school, has substantial previous research to consider its use as a behavioral vaccine. Approximately 20 independent replications of the GBG across different grade levels, different types of students, different settings, and some with long-term follow-up show strong, consistent impact on impulsive, disruptive behaviors of children and teens as well as reductions in substance use or serious antisocial behaviors. The GBG, named as a "best practice" for the prevention of substance abuse or violent behavior by a number of federal agencies, is the only practice implemented by individual teachers that is documented to have longterm effects. Presently, the GBG is only used in a small number of settings. However, near universal use of the GBG, in major political jurisdictions during the elementary years, could reduce the incidence of substance use, antisocial behavior, and other adverse developmental or social consequences with very positive costeffectiveness ratios.

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The Critical Role of Nurturing Environments for Promoting Human Well-Being

Biglan, A., Flay, B. R., Embry, D. D., & Sandler, I. N. (2012). The critical role of nurturing environments for promoting human well-being. *American Psychologist*, 67(4), 257-271. doi: 10.1037/a0026796

(Note: PAX GBG is built around the Nurturing Environment framework) The recent Institute of Medicine report on prevention (National Research Council & Institute of Medicine, 2009) noted the substantial interrelationship among mental, emotional, and behavioral disorders and pointed out that, to a great extent, these problems stem from a set of common conditions. However, despite the evidence, current research and practice continue to deal with the prevention of mental, emotional, and behavioral disorders as if they are unrelated and each stems from different conditions. This article proposes a framework that could accelerate progress in preventing these problems. Environments that foster successful development and prevent the development of psychological and behavioral problems are usefully characterized as nurturing environments. First, these environments minimize biologically and psychologically toxic events. Second, they teach, promote, and richly reinforce prosocial behavior, including self-regulatory behaviors and all of the skills needed to become productive adult members of society. Third, they monitor and limit opportunities for problem behavior. Fourth, they foster psychological flexibility, the ability to be mindful of one's thoughts and feelings and to act in the service of one's values even when one's thoughts and feelings discourage taking valued action. We review evidence to support this synthesis and describe the kind of public health movement that could increase the prevalence of nurturing environments and thereby contribute to the prevention of most mental, emotional, and behavioral disorders. This article is one of three in a special section representing an elaboration on a theme for prevention science developed by the 2009 report of the National Research Council and Institute of Medicine.

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