

Mindfulness with Children and families: **An Editor's Perspective on Research and Practice**

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State of Mindfulness Research with Children and Families Research: A Sampling of Reviews

- Black, D. S., Milam, J., & Sussman, S. (2009).** Sitting-Meditation interventions among youth: A review of treatment efficacy. *Pediatrics*, 124(3), 532-541.
- Black, D.S. (2015).** Mindfulness training for children and adolescents: A state-of-the-science review. In K. Brown, D. Creswell, R. Ryan (Eds.) *Handbook of mindfulness: Theory, research, and practice* (pp. 283-310). New York: Guilford Press.
- Burke, C. A. (2010).** Mindfulness-Based approaches with children and adolescents: A preliminary review of current research in an emergent field. *Journal of Child and Family Studies*, 19(2), 133-144.
- Harnett, P. H., & Dawe, S. (2012).** The contribution of mindfulness-based therapies for children and families and proposed conceptual integration. *Child and Adolescent Mental Health*, 17, 195-208.

State of Mindfulness Research with Children and Families Research

- Kallapiran, K., Koo, S., Kirubakaran, R., & Hancock, K. (2015).** Effectiveness of mindfulness in improving mental health symptoms of children and adolescents: A meta-analysis. *Child and Adolescent Mental Health*, 20, 182-194.
- Rempel, K. (2012).** Mindfulness for children and youth: A review of the literature with an argument for school-based implementation. *Canadian Journal of Counseling and Psychotherapy*, 46(3), 201-220.
- Tan, L. B. (2016).** A critical review of adolescent mindfulness-based programmes. *Clinical Child Psychology and Psychiatry*, 21, 193-207.
- Townshend, K., Jordan, Z., Peters, M. D., & Tsey, K. (2014).** The effectiveness of mindful parenting programs in promoting parents' and children's wellbeing: A systematic review protocol. *The JBI Database of Systematic Reviews and Implementation Reports*, 12(11), 184-196.

State of Mindfulness Research with Children and Families Research

- Weare, K. (2013).** Developing mindfulness with children and young people: A review of the evidence and policy context. *Journal of Children's Services*, 8(2), 141-153.
- Whittingham, K. (2014).** Parents of children with disabilities, mindfulness and acceptance: A review and a call for research. *Mindfulness*, 5, 704-709.
- Whittingham, K. (2014).** Mindfulness and transformative parenting. In E. Shonin, W. Van Gordon, & M. D. Griffiths (Eds.), *Mindfulness and Buddhist-Derived approaches in mental health and addictions* (pp. 363-390). New York: Springer.
- Zoogman, S., Goldberg, S. B., Hoyt, W. T., & Miller, L. (2015).** Mindfulness interventions with youth: A meta-analysis. *Mindfulness*, 6, 290-302.

OVERALL FINDINGS

- Majority of studies focused on youth at risk for or with specific health or mental health conditions, such as psychiatric problems, drug use, high blood pressure
- Minority of studies focused on primary prevention of health risk conditions
- The outcomes are reasonably clear, based on a small number of randomized controlled trials (RCTs)

OUTCOMES

Based on Black (2015)

- Improvements in **neurocognitive outcomes**—Increased executive functioning—which involves the coordination of attention, planning, decision-making, self-regulation, and goal-directed behavior. Executive functioning is positively correlated with school readiness, social behavior, and enhanced academic achievement (3 RCTs)
- Improvements in **psychosocial outcomes**—depressive symptoms, anxiety symptoms, rumination, and prosocial skills (9 RCTs)

OUTCOMES

- Improvements in **psychobiological outcomes**—in youth with elevated blood pressure, short-term improvements in systolic blood pressure, diastolic blood pressure, and heart rate (3 RCTs)
- Numerous studies attest to the positive effects of mindfulness-based programs on **educational outcomes**. However, except for the MYMind program, most others have been evaluated by the developers of the programs—See **Schonert-Reichl & Roeser** (2016). *Handbook of mindfulness in education*. NY: Springer

OUTLOOK

- **Next Steps**
- Need better controlled studies, with active control conditions
- Sample size should be based on power analyses
- Samples should be more diverse in terms of race and gender
- Self-reported and second-person reports of outcomes should be complemented with objective outcomes

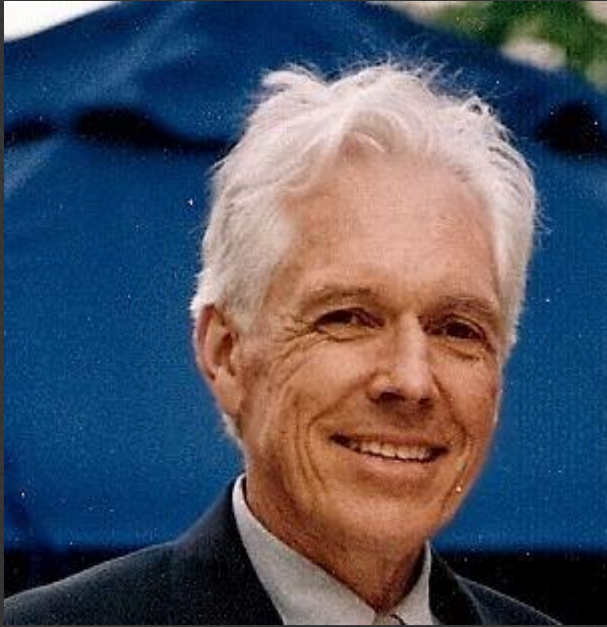
OUTLOOK

- Studies are needed that are designed specifically to better understand the mechanisms of action by which mindfulness produces the purported outcomes. It should not be assumed that the same mechanisms found in adult mindfulness research apply to children and adolescents
- Need much more study regarding what mindfulness practices work for whom and in what setting(s)
- What is the current state of mindfulness research **publications** with children and adolescents ?

Research Influence

- I was invited to give an Editor's perspective on the current status of mindfulness research with children and adolescents
- All of us are influenced by those who have taught or mentored us, or by current colleagues, in how we view any research field
- Thus, all editors are biased in one way or another although we try to be very even handed in processing manuscripts we receive
- But, our view of research in mindfulness is influenced not only by our research history but also by our personal practice of meditation

My Biases



- In the interest of transparency, let me state that I was heavily influenced by my mentor **Prof. Ivan Beale** (from the University of Auckland, NZ), who was influenced by his mentor, **Prof. Jim Pollard** (University of Canterbury, NZ), who was influenced by **Prof. Leslie Reid** (founding professor of psychology at University of Exeter), who was influenced by his mentor and friend, **B. F. Skinner** (Harvard University)
- Thus, I am behaviorally trained, with a life-long meditation practice in the Soto Zen tradition, as taught in the lineage of Shunryu Suzuki

Advice to a Young Scientist

Sir Peter Medawar

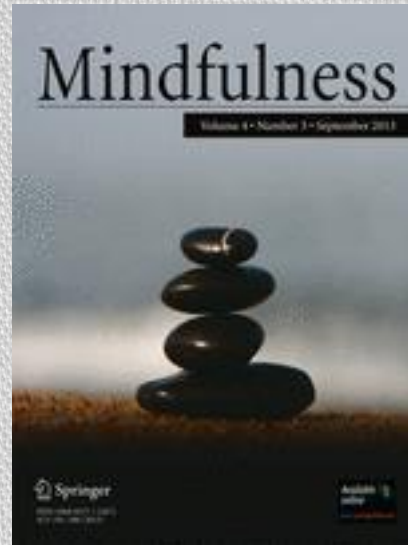
“Any scientist of any age who wants to make important discoveries must study important problems. Dull or piffling problems yield dull or piffling answers. It is not enough that a problem should be “interesting.” ... The problem must be such that it matters what the answer is—whether to science generally or to mankind.”

Sir Peter B.

Medawar

Advice to a Young Scientist (1979, p.
13)

Nobel Laureate, 1960



Impact Factor:
3.317



Impact Factor:
1.802

Both journals publish papers on
mindfulness

An EDITOR'S PERSPECTIVE

Title

Introduction

Method

- Participants
- Procedure
- Measures
- Data Analyses

Results

Discussion

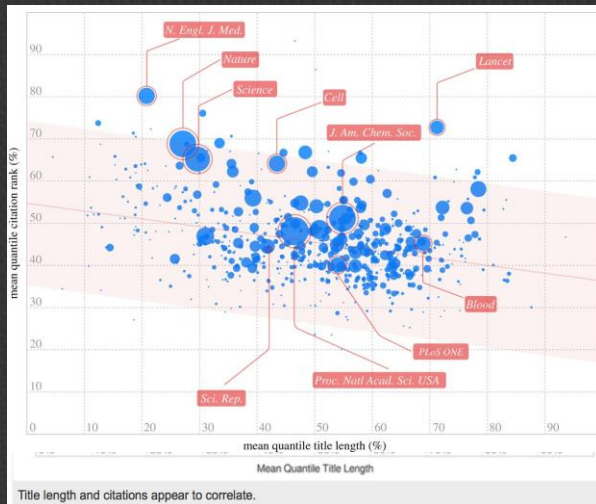
Peer Review

Hope, Hype, Harm



TITLE

Letchford, A. et al. (2015).
The advantage of short paper
titles. *Royal Society Open
Science* <http://dx.doi.org/10.1098/rsos.150266> (2015).



- Citations are one measure of importance of a published paper
- Letchford and colleagues analyzed 140,000 most highly cited peer-reviewed papers published between 2007 and 2013
- Reported a strong correlation between title length and citations
- Shorter titles are cited more frequently!
- **Science** (the journal) limits titles to 90 characters
- Others have no limits

INTRODUCTION

- Mindfulness—no consensus on its definition (see Anālayo, 2016, in *Mindfulness*)
 - How to measure it when you cannot define it?
 - At least be consistent within a research paper regarding the type of mindfulness being researched
- MBSR, MBCT and then the newer MB-alphabet soup of mindfulness-based interventions
 - Need to justify the theoretical underpinnings of all newer mindfulness-based interventions
 - First and second generation of mindfulness-based procedures

INTRODUCTION

- Mindfulness-based intervention plus another psychological or other technique
- Need to justify the need and how the two interventions are synergistic
- Explain how the combination will make someone's life better when compared to using one approach alone

INTRODUCTION



- **Street light effect**—looking for answers where others are looking rather than where they should be looking
- Use of MBSR for everything because of the acceptance of MBSR in the field—to secure funding, and so on
- Using a rating scale because others are using it
- Using procedures with children and adolescents because they have proven useful with adults

METHOD

Participants

- **Small Sample Sizes**
 - Power analyses are rarely used
 - Strength of findings are compromised
 - Findings are not generalizable
- **Samples of Convenience**
 - College students
 - Findings apply only to the participants studied
- **Limited Diversity**
 - More white middle class subjects than any other population
 - Studies with diverse populations are submitted but not accepted because of lack of methodological rigor, language barriers

METHOD

Participants

- **Surveys**

- Research using internet surveys (Survey Monkey, Mechanical Turk) on mindfulness is increasingly being reported
 - Lack of randomness
 - Response-bias—cooperation rate is usually less than 20% of targeted sample
 - Poor match of the reported sample to the population
 - Failure to weight the data to take into account population response characteristics—minorities less likely to respond than whites, males less likely than females to respond.

METHOD

Procedure

- Describe the specifics of the procedure so that it can be replicated by another research team (type of mediation, components of the procedure, duration of each component, therapist/trainer variables, homework requirements)
- Provide session-by-session descriptions of the mindfulness-based training
- If a standard procedure (e.g., MBSR, MBCT) is modified, state how and why. Report any data that may support the modification

METHOD

Procedure

- **Mindfulness Therapist or Trainer**
 - The training, personal practice, and nature of the mindfulness therapist or trainer have a rather profound effect on outcomes—an under-appreciated and under-studied area
 - There are therapists and trainers for whom meditation is a way of life rather than just a subject of study
 - There are therapists and trainers who have attended a few workshops and consider themselves to be experts

METHOD

Procedure

- **Mindfulness Therapist or Trainer**
 - Do we need to provide information on the therapist(s) or trainer(s) as a variable of interest?
 - Mindfulness is viewed slightly differently within and between lineages; should the training lineage be included? “Trained by JKZ, Rebecca Crane, John Peacock, Peter Harvey, Christopher Titmuss . . .”
 - Should the therapist use mindfulness as a psychological technique or as a means of personal transformation?

METHOD

Measures

- What mindfulness measures are psychometrically sound for use with children and adolescents?
- See review of measures by Pallozzi et al. (2016) in *Mindfulness*.
- If Mindful Attention Awareness Scale (MAAS) is a measure of perceived inattention, then what is MAAS-Adolescents a measure of?

METHOD

Data Analyses

- **Quantitative**
 - Do the data collection methods meet the prerequisites of the statistical procedure used to analyze the data?
 - Adequate sample size?
 - Completers vs. intent-to-treat analyses in RCTs

METHOD

Data Analyses

- **Qualitative**
 - Is there a need to show that there was an effect of the mindfulness intervention before asking participants their views?
 - Adequate sample size for qualitative studies
 - Use of a standard qualitative method for analyzing the data vs. casual thematic analysis studded with highly selective quotes
 - Choice of qualitative methods for specific purposes—grounded theory for hints about mechanism of action
- **Mixed-Methods**
 - May be a consideration

RESULTS

Issues to consider

- **Cognitive Bias**
 - Response bias or response set in self-reports—particular way of responding which may not be indicative of true feelings, thoughts, or behavior. Cultural response sets.
 - Participant and experimenter expectancy effects—subconsciously influencing the outcome when the participant (and/or experimenter) expects a given outcome
 - Response-shift bias—may be a problem in pre-post tests because the participants' internal frame of reference changes, e.g., after training they understand the rating scale items better.
- **Validity**
 - Potential biases must be taken into account when assessing the validity of a study
 - A bias means that the reported results of the statistical tests (regardless of the significance level) are not meaningful

RESULTS



- **Confirmatory Bias**
- Experimenters tend to look for what will confirm their hypotheses and ignore or understate relevance of contradictory findings
 - Needs a beginner's mind to fully "see" the data
- **Overstating the Findings**
 - The mindfulness literature is currently prone to overstating or misconstruing the results
 - Not always recognized by some in our research community who tend to read just the Introduction and Discussion in research papers
 - The state of current mindfulness research makes it imperative that the Method and Results sections are very carefully read

DISCUSSION

- Placing the findings in context—we all stand on the shoulders of others who have published in the field before us
- Of our own small study, do we need to say, “This is the first study to . . .”—often more than once in the same paper?
- Note the significance, generalizability, and limitations of the study
- Be cautious in drawing general conclusions

DISCUSSION



• Applications

- There are some “facts” in mindfulness research, but what about the spaces that live between these facts?
- How do you apply the findings from the studies to real people—how do the findings relate to this particular adolescent, with this history, in this particular crisis, under current conditions?
- As clinicians we work with uncertainty, imprecision, an incompleteness

PEER REVIEW

- **Review process is biased**
 - Outcome may depend on who the reviewer is—experience of researcher, having good alignment with the article’s research area, being current with the research topic, personal preferences
 - The reviewer may:
 - Possess inherent biases in terms of training and theoretical orientation that are not taken into account
 - Lack the depth of knowledge of the data analytic procedure used, but not state that in the review
 - Have a conflict of interest but agree to review the paper anyway
 - Be working on the same research topic and provide a negative review to delay publication of a competing paper

HOPE

- **Benefits of Mindfulness**
 - Mindfulness is truly a major movement in science and personal practice
 - It offers immense hope for all of us as individuals, and for society and the world generally
 - It is needed more now than ever before, especially in light of the current political and economic situation in many countries

HOPE

- **Maintain Healthy Skepticism**
 - Progress in science often comes about when researchers challenge accepted wisdom and reject conventional thinking. We need to encourage skeptics .
 - Established researchers may sputter with gall, appalled by the questions of younger colleagues, but we must encourage them

HYPE

In God we trust. All
others must bring data
--Bernie Fisher
surgeon

- **Hype**

- Going beyond the current data to extoll the virtues of mindfulness
- Despite the exponential growth of research on mindfulness, the data are still very limited
- Few facts, principles, or laws
- It is easy to substitute instinct, opinion and even unfettered bias for certainty

HYPE

- **Reproducibility**

- Methodology is still developing
- Poor experimental designs
- Incomplete descriptions of participants and procedures
- Key issue in this field is therapist training and therapist style and competency
- Hyper-competition in mindfulness research—essential to science but hyper-competition is being ratcheted up to breaking point; science is a slow but rigorous process; science is imperfect

HYPE

- **Strength of Findings**

- No single study is the final word
- No research paper or journal article is the end of the story, or a statement of incontrovertible truth
- Each research paper should be treated as nothing more than a progress report, a very small piece of a boundless puzzle
- So what to do with the results—especially when the data are imperfect, incomplete or uncertain?

HYPE

- **Implications of Findings**

- Is it appropriate to suggest clinical or practice implications from a single study?
- Is it better to present cautionary advice—things to be aware of, the possibilities?
- Use specific findings as heuristic for further study?

HYPE



- **Mindfulness is not a panacea for all the ills of people and society**
- Mindfulness, or meditation more generally, is not Buddhist in its origins
- While mindfulness practices can be found in all wisdom traditions, and have existed across many centuries, there is no evidence of perfection in any society—hence the need for enlightened Ones to appear and reappear to provide guidance

HARM

- No studies or reviews of studies with children, adolescents, or families have reported any specific “harm” due to participation in mindfulness-based studies



HARM

There is much that is true which does not admit of being calculated; just as there are a great many things that cannot be brought to the test of a decisive experiment.

Goethe

- There are a small number of studies, mainly with college students and adults, that report some negative side effects, such as panic, depression, and confusion
- Hard to determine the “cause” of the negative side effects
 - Participant variables?
 - Training/therapist variables?
 - Length of training?
 - Lack of prior preparation for dealing with unpleasant or painful memories of the past that may resurface?

HARM

"Much to learn you still have...my old padawan." ...

Yoda

"This is just the beginning!"

Count Dooku



- Need to actively monitor negative side effects in future studies
- Investigate ways of minimizing the risk of negative side effects
- What do the wisdom traditions advise us to do?
- With any emerging field, there will be misuse and abuse of the practice by charlatans and ill-trained therapists and trainers
- **Attention and Awareness are needed as we go forward with this exciting journey**



Thank You and Namaste

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