HOW TO SPOT "HYPE" IN THE FIELD OF PSYCHOTHERAPY AND IN THE FIELD OF TRUAMA THERAPY

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HOW TO SPOT HYPE IN THE FIELD OF PSYCHOTHERAPY

When choosing an Acronym-based intervention you should be a CRITICAL CONSUMER and be sure to avoid HYPE. Here are some "red flag" descriptors that have been used to entice you to sign up for their workshop.

Does the workshop you signed up for begin with the following?

WELCOME to my presentation, it is :

Transformative Revolutionary Completely Innovative Powerful

A Breakthrough Amazing Liberating Ground-breaking

Cutting Edge Game Changer Evidenced-Based

Ultimate to cure anything that your patients' experiences

INCREDIBLY HEALING BEHIND THE SCENES INSIGHTS

HIGLY EMPIRICALLY VALIDATED

GOES FAR BEYOND YOUR TRADITIONAL TALK THERAPY

REVOLUTIONIZE your practice It has been endorsed by GURU X

REWIRE YOUR BRAIN Neuroscience-informed Guarantee Satisfaction

Discount on higher level training You will be put on a Website list

YOU WILL RECEIVE A CERTIFICATE

FOR A CONSUMER'S CHECKLIST PLEASE READ OUR ARTICLE ON HOW TO SPOT HYPE

HOW TO SPOT “HYPE” IN THE FIELD OF PSYCHOTHERAPY - CHECKLIST TAKE AWAY

The National Registry of Evidence-based treatment programs and practices (NREPP) has generated a list of 479 effective interventions.

When choosing an intervention BEWARE OF THE FOLLOWING:

- Exaggerated claims of efficacy "revolutionary treatment".
- Endorsements by gurus.
- Slick and/or “hard sell” marketing.
- Psycho-babble and Neuro-babble.
- Anecdotal "one-size fits all" claims; and
- Allegiance and decline effects.

See ‘characteristics of HYPE’ below for a more detailed Critical Consumer Checklist

What are the implications of these research findings?

In addition, effective therapists can spot HYPE in the field of psychotherapy. Consider the following list of things to be on the lookout for.

CHARACTERISTICS OF "HYPE" IN THE FIELD OF PSYCHOTHERAPY

1. The promoters of a particular, specific treatment approach might use such HYPE-related descriptors as "cutting edge", "game changing", "amazing", "liberating", and "it will revolutionize your treatment practice".

2. Advocates for a therapeutic approach state that their treatment is "revolutionary" and offer outlandish unsubstantiated claims for its superiority. E.g. "*over 90% improvement rates*", "*simple, but powerful*" treatment approach, or "*a breakthrough treatment*".

3. Make claims that you can learn from a "master", "leading expert" or "guru" and use marketing terms like "powerful", "transformative", "unique and ultimate training," "life-changing benefits", "deep psychological healing", and moreover, assure that your "complete satisfaction is guaranteed".

4. Advocates rely heavily on the use of acronyms ("acronym therapies") and "psycho-babble" to sell their treatment approach.

5. Claim that the treatment approach could be applied successfully with patients who have a wide variety of psychiatric and physical conditions, and across multiple age groups, without any clinical trial demonstrations. Advocates often employ that their treatment approach "fits all" ("*one size fits all*").

6. Claims that treatment approach is "evidence-based" and/or "scientifically proven", because it has met the criteria of two (or a small number of) randomized controlled trials, but they do <u>not</u> report Effect Sizes, nor do not provide details about the exclusionary criteria of the patients (i.e. those trials are "cherry-picking" the patients). Also, such evidence does <u>not</u> report on the attrition and drop-out rates or follow-up data. Advocates often broadly and subjectively define "evidence" (e.g. anecdotes or "*I saw it work with my clients, and that is my evidence*".)

7. Advocates state that "*Over X number of studies have consistently demonstrated efficacy and superiority*", without citing or critiquing these studies.

8. Compare proposed treatment to "weak" comparison groups. Do not compare the treatment to "bona-fide" comparison groups that are intended to be effective.

9. Compare the proposed treatment <u>versus</u> a reduced, or weaker version of the comparative treatment. For example, see Foa et al. (1999) comparison of Prolonged Exposure <u>versus</u> Stress inoculation training (SIT), where the third application phase of SIT was omitted.

10. Do <u>not</u> report on possible "allegiance effects" of who conducted the controlled outcome studies. Moreover, the cited supportive studies that were initially conducted yielded more effective results than later conducted studies. ("*Strike while the iron is hot*", and when the enthusiasm for the new therapeutic approach is highest.) For example, the

efficacy of antidepressant medication has gone down as much as threefold in recent decades. Effect Sizes from studies from treatment studies drop off. The researchers' confirmatory beliefs can act as a set of blinders.

11. Do not independently determine if the treatment rationale offered to the alternative treatment and control groups is judged as being as credible and believable as for the advocated treatment. This can lead to differences in expectancy effects across groups.

12. Do not highlight the role of non-specific treatment factors, such as therapeutic alliance, expectancy effects, and other placebo considerations. For example, does not include any measures of the ongoing quality of the therapeutic alliance, such as the Therapeutic Alliance Scales, or the Quality of Relationship Measures, or the session-by-session Treatment-informed Feedback.

13. Do not include a critical account of the scientific validity, or theoretical basis, for the effectiveness of the proposed treatment. Offers little scientific basis for the proposed change mechanisms for the treatment. See controversy over so-called "energy-based" treatments such as Tapping, Eye Movements, Magnetic fields, Meridian band techniques and the like. The intervention may work, but it has little to do with the proposed treatment model. The proposed treatment may do better than no treatment, or weak control and comparison groups because of non-specific factors, such as placebo effects.

14. Advocates use "neuro-babble" and "neuro-networks" and reductionism (often with coloured versions of the brain) to explain the treatment approach. They resort to a dubious neurological basis for the explanation of their treatment approach. For example, patients who have experienced Attachment Disorders as children are told that the right side of their brain is "dead" and that they need treatment to revive it. There may be references made to their approach being "neuroscience-informed". Every treatment approach is neuroscience informed - this is pure HYPE.

15. Advocates fail to discuss criticisms of their treatment approach. They fail to mention the results of dismantling studies that question the basis of their treatment approach.

16. Advocates tell their patients that "*If this treatment does not help you, then nothing else will*". They convey an expectancy that reinforces treatment outcomes.

17. Advocates promote advanced training, sell paraphernalia, tapes that go along with their treatment approaches. They require that trainees sign statements that they will not share treatment protocols with others. "Commercialism is rampant".

18. Advocates are very defensive and "thin-skinned" about their approach. They often question the motives and background of those who have questioned the efficacy, theoretical basis of their treatment approach. They fail to question what they are proposing and readily dismiss sceptics. They may disregard "inconvenient truths" and offer "alternative facts", thus, holding onto debunked theories.

19. The advocates of their treatment approach rely on the endorsements of leaders in the field. For example, some therapists in the trauma field cite Bessel van der Kolk as an advocate and endorser of their treatment approach.

20. Advocates establish a coterie of trainers and an international organization to promote the treatment. Advocates use public media (television, blogs, print) and they oversell their treatment approach. Advocates are "slick salespersons," setting up clinics, training settings, and conferences.

21. The advocates will provide a Certificate that you have taken the training and can call yourself an "X therapist". Offers to put you on a referral list of Certified X practitioners. There are no research findings that clinicians who receive Certificates for attending training obtain better patient treatment outcomes than clinicians who do not obtain such Certificates. Moreover, there are research findings that "one-shot" training workshops do NOT improve their clinical patient outcomes without engaging in Deliberate Practice with ongoing patient feedback.

Having considered the characteristics of HYPE, please consider the following questions:

- How many of these 20 items does your treatment approach incorporate?
- Can you now describe to others how to be on the lookout for HYPE (exaggerated false claims of efficacy) for all types of psychological and medical treatments?
- Also, visit the websites and videos on BRAIN SPOTTING, PSYCHOTHERAPY NETWORKER and PESI and see if you can find examples of HYPE in their promotions?

Here are four such examples:

1. The Tapping Solution Foundation org. For a slick promotional YouTube filled with HYPE see https//www.youtube.com/watch?v=s99M8eJV4sk

   For a critique of such so-called Energy-based interventions see https://en.wikipedia.org/wiki/Emotional_Freedom_Techniques

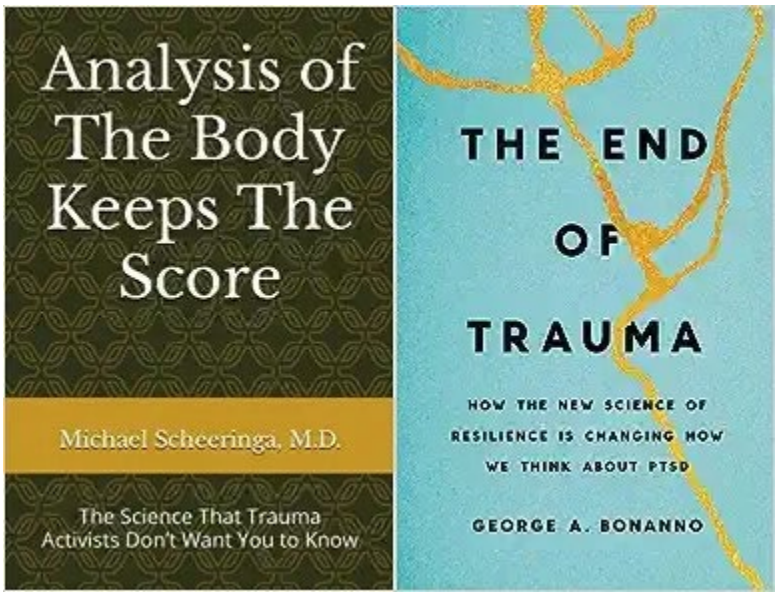
2. Dr Amen's SPECT analysis and so-called brain "ring of fire"; evident in Hyperactive and other children. See the following critique by Hall: *https://sciencebasedmedicine.org/dr.amens-love-affair-with-spect-scans/*

3. Eye Movement Desensitisation and Reprocessing (EMDR) is a popular therapy for trauma created by Francine Shapiro in the 1980s. See the following critique by Rosen (2023): https://link.springer.com/article/10.1007/s10879-023-09582-x

4. Michiel van Ells & Elko Fried "History repeating: Guidelines to address common problems in psychedelic science," https:// doi.org/10.1177/204512532311988466

FURTHER EVIDENCE OF HYPE IN THE FIELD OF TRAUMA THERAPY

These observations are supported by the following two authors that are discussed by Dr. Meichenbaum.



WATCH OUT FOR HYPE IN THE FIELD OF TRAUMA THERAPY

1. Bessel van der Kolk's book "THE BODY KEEPS SCORE" has been on the New York Times Best Seller list for 150 weeks.

I have had occasion to debate Bessel at the Evolution Conference of Psychotherapy and was interested in Michael Scheeringa (MS) critical analysis of Bessel van der Kolk classic text.

MS begins by reminding us of the complexity of the concept of PTSD and then goes onto critique each of the 42 so-called scientific claims in The Body Keeps Score book.

The DSM-5 diagnosis of PTSD consists of 20 possible symptoms arranged in four clusters that can be arranged in 2181 different patterns of symptoms that constitute the diagnosis of PTSD. (See Bryant et al. 2022, JAMA Psychiatry, 80, 189.)

The major claim of van der Kolk that has found so much appeal has been the argument that early experiences of trauma and victimization have a long-term neurophysiological and psychosocial toll. This claim implies there is evidence that there is a significant change from pre-trauma level of functioning to post trauma level of functioning., namely, as evident in a longitudinal assessment MS highlights that the studies van der Kolk cites are cross- sectional comparing a diagnostic group of patients against a matched control group. In fact, there is evidence that those patients who do evidence long lasting effects have evidenced pre-trauma vulnerabilities. In short, MS challenges the conclusions that Adverse traumatic experiences actually cause permanent neurophysiological changes and "rewire" various brain areas , He goes onto accuse Bessel of pseudoscientific hyperbole and citation puffery. He goes so far to claim that the Score book has become the " Bible to an ideological movement. This is the analysis that trauma therapists do not want you to know."

In my debate with Dr. Van der Kolk, I had raised similar issues and also raised the question, if in fact the body keeps score of the impact of trauma as he proposed, then why doesn't the body keep score of the changes that characterize the 75 % of trauma-exposed individuals who evidence resilience? What are the neurological and psychosocial changes that accompany what Fredrickson has described as " building and broadening" positive emotions ?

If there is merit in this critique, then we can raise questions about the implications this has for the variety of Somatic Therapeutic treatment approaches? . I encourage you to read the MS critique and judge for yourself.

In addition, have a look at George Bonanno's book entitled "The End of Trauma ", which I think should have been on the NY Times Best Selling List, He highlights the PARADOX OF TRAUMA AND RESILIENCE and cautions about the HYPE surrounding the therapeutic treatment approach of Mindfulness training.

The PARADOX reflects the findings that a number of behavioral indicators correlate with the experience of resilience, but no one set, nor combination of such indicators, can be identified as determinate of resilience. Moreover, while some coping strategies are effective in some situations or under some circumstances, they may NOT be effective in other situations. Bonanno calls for a " strategic coping " perspective and the need for therapists to help their patients develop a FLEXIBLE coping repertoire that meets the demands of the particular situation and their personal goals and preferences. This advice is consistent with the

present LEGACY message that treatment should be PERSON-CENTERED rather than protocol-driven.

His critique of the treatment approach of Mindfulness training as discussed in the following references that underscore the need to watch out for HYPE.

Bonanno concludes that,

> "There isn't actually any evidence that mindfulness predicts resilience. Worse, there is at least some chance it could be detrimental contributing to increased anxiety, panic disorientation, hallucination and depersonalization." (Page 100) (See References below)

Finally, I have also had an occasion to debate Francine Shapiro at the Evolution of Psychotherapy Conference about EMDR. One can find workshops still being advertised for this treatment approach.

Advocates of EMDR should be required to read the recent critique offered by Gerald Rosen on "Revisiting the origins of EMDR. "

He notes that Francine Shapiro story about her discovery of EMDR occurred while she was walking in a park when she noticed her saccadic eye movements at the same time she was experiencing distressing thoughts and feelings.

As Rosen reports , the research indicates that people cannot be aware of such saccadic eye movements. He then goes onto describe the HYPE that follows her initial claims. Visit (Journal of Contemporary Psychotherapy 2023 http://doi.org/10.1007/s10879-023-09582-x)

How many of these " red flag " claims can you find about the treatment approaches that you advocate?

Please read the article I co-authored with the late Scott Lilienfeld and the Consumer Checklist that we provided.

Finally, the following Workshop invitation arrived on my computer screen as I was finishing up my LEGACY course.

Join our latest workshop on the treatment of patients suffering from EMOTIONAL NEGLECT and some patients do NOT even know they are experiencing the neurobiological and psychosocial sequelae of this disorder.

WHAT ARE YOUR REACTIONS TO THIS INVITATION?

WHAT EVIDENCE OF "HYPE" ACCOMPANIES THIS DESCRIPITON?

HOW TO SPOT HYPE IN THE FIELD OF PSYCHOTHERAPY

DON MEICHENBAUM AND SCOTT LILLENFELD

A 19-Item Checklist

The following article that I co-authored with Scott Lilienfeld provides a Consumer Checklist whereby you can evaluate various treatment approaches. This article was published in Professional Psychology, 2018,49, 22-30. The Journal of Contemporary Psychotherapy chose our article as the best article of the year.

The world of psychotherapy is bewildering. There are at least 600 “brands” of psychotherapy, and this figure is almost certainly growing on a virtually monthly basis (Eisner, 2000; Lilienfeld, Lynn, & Lohr, 2014). The substantial majority of these interventions have never been subjected to controlled clinical trials. Many of these largely or entirely untested treatments may very well be effective; but some may be largely or entirely ineffective, and a few may even be directly harmful (Lilienfeld, 2007). The lack of research evidence notwithstanding, scores of untested interventions are extensively and enthusiastically promoted, often with great fanfare and accompanied by expansive claims of efficacy and effectiveness. Nevertheless, practitioners and graduate students in training receive scant guidance for how to appraise such interventions in the absence of adequate research: Should they be particularly dubious of some of them, and, if so, which ones?

The Dodo Bird Verdict

Some scholars might contend that consumers of the psychotherapy literature need not be concerned by the challenges posed by untested interventions. To support this view, they frequently invoke the *Dodo Bird verdict* (Rosenzweig, 1936), which implies that all psychological treatments work equally well (the name of this verdict derives from the Dodo Bird in Lewis Carroll’s “Alice in Wonderland,” who declared after a race that “Everybody has won, and all must have prizes”). Hence, this reasoning continues, we should not be alarmed by the promotion and marketing of pseudoscientific and otherwise questionable treatments,

because these treatments are likely to be as effective as well-established interventions. Nor should we be especially worried about the overhyping of unsubstantiated treatments given that these treatments will probably turn out to work just about as well as others.

Comparative studies of psychotherapy impart a valuable lesson, namely, that nonspecific factors (e.g., the therapeutic alliance) account for sizable proportions of variance in treatment outcomes (Wampold & Imel, 2015). In this respect, research on the Dodo Bird verdict reminds us not to advance expansive claims concerning treatment specificity. There is also little doubt that for some psychological conditions, such as major depressive disorder, a variety of different treatments are efficacious (Wampold et al., 1997).

Nevertheless, there are at least three reasons that findings concerning approximate therapeutic equivalence should not be cause for complacency with respect to untested interventions. First, the Dodo Bird verdict as originally conceptualized referred only to a broad equivalence in efficacy across different *schools* of psychotherapy (e.g., behavioral, cognitive-behavioral, humanistic, psychodynamic); it never implied that every *intervention* was equally efficacious overall, let alone equally efficacious for every psychological condition. Second, most data call into question the claim of exact equivalence of therapeutic effectiveness across all disorders (Hunsley & DiGuilio, 2002; Lilienfeld, 2014; Tolin, 2014; but see Wampold et al., 2017, for an alternative view). To take merely one example, meta-analytic evidence suggests that critical incident stress (crisis) debriefing, a widely used prophylactic treatment for trauma-exposed victims, is associated with negligible and perhaps even *negative* effect sizes (Litz, Gray, Bryant, & Adler, 2002). The same conclusion holds for several popular “get-tough” interventions for antisocial adolescents, such as Scared Straight and boot camp treatments (Lilienfeld, 2007). Third, the conclusion of approximate equivalence of psychotherapies across all major conditions applies largely or entirely to “bona-fide” interventions, that is, well-specified treatments grounded in a well-supported theoretical rationale and that have already been found to work reasonably well (Wampold et al., 1997). There are no compelling grounds for extending this verdict to psychological interventions that fall far outside of the scientific

mainstream. Furthermore, the onus of evidence falls on the proponents of novel interventions to demonstrate that they are efficacious and effective, not on critics to demonstrate otherwise.

Healthy Self-Doubt

Rendering the evaluation of the psychotherapy outcome literature more complicated, findings point to marked variability in efficacy among psychotherapists themselves. At the risk of painting with an overly broad brush, the most successful psychotherapists average 50% better outcomes and 50% fewer dropouts than do psychotherapists in general (Wampold, 2017).

We hypothesize that one largely unappreciated characteristic of successful psychotherapists is their penchant for maintaining a skeptical attitude, both toward their own practice and toward psychological treatments in general. Although skepticism has acquired a bad name in many quarters, it refers only to a propensity to withhold judgment on assertions until adequate evidence is available (Shermer, 2002). In this respect, skepticism is merely a broader term to describe what many scholars have referred to as the *scientific attitude* (Sagan, 1995). In clinical psychology, such skepticism is well illustrated by Meehl's (1973) classic chapter, "Why I Do Not Attend Case Conferences," which in our view should be required reading (and regular re-reading!) for all mental health professionals-in-training and current mental health professionals. We can also conceptualize skepticism in terms of several closely allied concepts, such as epistemic (intellectual) humility (Leary et al., 2017; Lilienfeld, Lynn, O'Donohue, & Latzman, 2017) and the term we elect to emphasize here, *healthy self-doubt*.

By healthy self-doubt, we mean a propensity to engage in thoughtful self-reflection regarding one's biases and limitations, as well as regarding one's selection and interpretation of treatment and assessment techniques. Practitioners marked by healthy self-doubt are not diffident. To the contrary, they are confident, but not overconfident: Their confidence is properly calibrated to their level of knowledge and skills. Moreover, their confidence derives from an adequate appreciation of their shortcomings and of the best means of compensating for them: "Forewarned is forearmed." In the lingo of social cognition, therapists with a sense of

healthy self-doubt are characterized by a smaller *bias blind spot* (Pronin, Lee, & Ross, 2002) compared with other therapists.

Admittedly, virtually all of us are probably oblivious of our biases to some degree, but we posit that therapists with a sense of healthy self-doubt are more cognizant of their propensity toward systematic error than are other therapists. In addition, we hypothesize that therapists with a sense of healthy self-doubt are inclined to rightly turn a doubtful eye to interventions that have been substantially overhyped and overpromoted. As a consequence, they may be less likely to fall prey to the seductive charm of therapeutic fads and fallacies, as well as to psychological pseudoscience more broadly. Although excessive self-doubt may undermine the power of the expectancies that very likely drive some of the success of psychotherapy (Frank & Frank, 1993), a modest dose of self-doubt, which cultivates a non-defensive acknowledgement of the strengths and weaknesses of one's preferred treatment approach, may foster confidence in patients.

Much of what we have written in the preceding paragraph is conjectural. Nevertheless, correlational research raises the possibility that psychotherapists' self-doubt predicts better treatment outcomes, at least among experienced therapists (Nissen-Lie, Monsen, Ulleberg, & Rønnestad, 2013; Nissen-Lie et al., 2017; but see Odyniec, Probst, Margraf, & Willutzki, 2017, for a replication failure). In this research, endorsement of such items as "Lacking in confidence that you might have a beneficial effect on a patient." and "Unsure about how best to deal effectively with a patient" was tied to superior treatment outcomes, especially among therapists with a positive self-concept. Aptly, the title of Nissen-Lie et al.'s (2017, p. 48) article was "Love yourself as a person, doubt yourself as a therapist?" Similarly, in a small-sample (N=16) study of psychodynamically-oriented therapists, self-criticism significantly predicted superior patient outcomes. Perhaps counterintuitively, more effective therapists rated their treatment sessions as having been *less* successful than did less effective therapists (Najavits & Strupp, 1994), probably because they were more inclined to engage in self-scrutiny. It is

unknown, however, whether therapist self-doubt is trainable, and if so, whether it is causally related to better client outcomes.

More broadly, overconfidence is linked to suboptimal decision-making in medicine and allied health fields (Berner & Graber, 2008; Croskerry & Norman, 2008), raising the possibility that instilling a well-calibrated sense of self-confidence – one that balances appropriate self-assurance with healthy self-doubt - will enhance therapeutic outcomes. This goal is important for several reasons, not the least of which is that many therapists, like most people in general (Kruger, 1999), appear to substantially overestimate their abilities (Miller, Hubble, Seidel, Chow, & Bargmann, 2014). For example, among 129 private practice psychotherapists, the average clinician rated him- or herself at the 80th percentile of all therapists in effectiveness and skills; 25% rated themselves at the 90th percentile. *None* rated themselves below average (Walfish, McAlister, O'Donnell, & Lambert, 2012). Further, data demonstrate that most therapists markedly overestimate the percentage of their clients who are getting better and underestimate the percentage of their clients who are getting worse (Hannan et al., 2005). To minimize the risk of therapeutic error, psychotherapists need to steer clear of the hazards of overconfidence, both with respect to their own therapeutic skills and with respect to their enthusiasm for embracing unsubstantiated or overhyped interventions.

Abstract

How can consumers of psychotherapies, including practitioners, students, and clients, best appraise the merits of therapies, especially those that are largely or entirely untested? We propose that clinicians, patients, and other consumers should be especially skeptical of interventions that have been substantially overhyped and overpromoted. To that end, we offer a provisional "Psychotherapy Hype Checklist," which consists of 19 warning signs suggesting that an intervention's efficacy and effectiveness have been substantially exaggerated. We hope that this checklist will foster a sense of healthy self-doubt in practitioners and assist them to become more discerning consumers of the bewildering psychotherapy marketplace. This checklist should also be useful in identifying the overhyping of well-established treatments.

Keywords: Psychotherapy, hype, fads, pseudoscience, science

Summary Statement: Sizeable pockets of the psychotherapy field are replete with exaggerated claims of efficacy and effectiveness. We provide a 19-item checklist of warning signs designed to help practitioners and others with the task of identifying psychotherapy hype.

This provisional checklist should also help to nurture critical thinking, healthy self-doubt, and intellectual humility in the selection and promotion of psychotherapeutic interventions.

Author Note: The authors thank Michael Hoyt, Scott Miller, and several anonymous reviewers for their helpful comments on a previous draft of this manuscript.

A Checklist of Psychotherapy Warning Signs

In the following section, we present an admittedly provisional checklist of 19 "Psychotherapy Hype Warning Signs" (see Table 1, for a capsule summary). In the spirit of our own humility, we provide this list merely as a first approximation, and we welcome suggestions and constructive criticisms from readers. We have drawn the items on this list from academic publications and presentations, trade books, claims advanced at continuing education workshops, inspection of printed and online advertisements of treatments, promotional emails, informal consultations with colleagues inside and outside of academia, and other sources. Some of these warning signs (especially 1-13) bear primarily on the promotion and marketing of treatments, whereas others (especially 14-19) bear primarily on the quality of research ostensibly supporting them, although there is some overlap between these two broad categories. Although we do not provide specific references for each warning sign, we encourage interested readers to consult the following sources for examples of the overhyping of interventions (Dawes, 1994; Eisner, 2000; Herbert et al., 2000; Jacobsen, Fox, & Mulick, 2005; Lilienfeld, Lynn, & Lohr, 2014; Lilienfeld, Marshall, Todd, & Shane, 2014; Mercer, 2015; Norcross, Koocher, & Garafalo, 2006; Overholser, 2014; Thyer & Pignotti, 2015; Singer & Lalich, 1996; Wilkowski, 2015).

Several items on this checklist mirror commonly proposed indicators ("warning signs") of pseudoscience (e.g., Bunge, 1984; Hines, 2003; Lilienfeld, Lynn, & Lohr, 2014). Nevertheless, our considerably more extensive checklist goes well beyond previous lists of pseudoscientific indicators in its focus on psychotherapeutic claims in particular rather than scientific claims more broadly. Moreover, our checklist applies not merely to the marketing of pseudoscientific or otherwise questionable interventions, but also to the overpromotion of claims concerning all psychological treatments, even those underpinned by a solid evidentiary base (e.g., cognitive-behavioral therapy, acceptance and commitment therapy, dialectical behavior therapy).

We offer this checklist primarily for mental health practitioners and practitioners-in-training who are attempting to navigate the often-confusing maze of mental health treatments. This checklist is intended to plant the seeds of healthy self-doubt in practitioners and trainees, and to help to nurture in them a sense of humility in treatment selection and delivery. In the long term, this checklist may also enhance treatment outcomes by dissuading practitioners from embracing overhyped and pseudoscientific interventions, although this conjecture awaits formal research corroboration. Ideally, non-clinician readers, especially (a) mental health consumers, their friends, and loved ones, (b) psychology instructors, and (c) science journalists should also find this checklist helpful as a field guide to spotting overhyped and dubious interventions.

We discourage readers from implementing this checklist in a cookbook, DSM-style fashion. There is almost certainly no categorical cut-off that demarcates largely pseudoscientific from largely scientific therapies, so we are reluctant to suggest a specific "number" of warning signs for a treatment to acquire "overhyped status." Furthermore, even many well-established psychotherapies, including some cognitive-behavioral and acceptance-based interventions, have at times been substantially overhyped (see Rosen & Lilienfeld, 2016).

Nevertheless, it seems safe to conclude that the more warning signs a given psychological treatment displays, the more alarm bells should ring in therapists' and other consumers' minds. Such overpromotion can be misleading to both practitioners and patients, both of whom may come to expect dramatic or even miraculous cures. Patients in particular may become demoralized and disillusioned after receiving overhyped interventions that are largely ineffective or substantially less effective than promised. Furthermore, because a presumably small minority of psychological interventions appear to be iatrogenic (Dimidjian & Hollon, 2010; Lilienfeld, 2007), these warning signs may help to safeguard mental health consumers against psychological harm.

As Marcello Truzzi (1978) and later, Carl Sagan (1980), reminded us, extraordinary claims require extraordinary evidence. Hence, proponents of interventions who advance remarkable

claims of efficacy and effectiveness in the absence of equally convincing data are opening themselves to justifiable criticism.

Psychotherapy Hype Warning Signs: A 19-Item Checklist

Promotion and marketing red flags

(1 «Advocates of a therapeutic approach routinely advance greatly exaggerated and often unsubstantiated claims. They may assert that their treatment is "revolutionary," "ground-breaking," or that it is a "gold standard." For example, the developer of psychodrama described his method as launching a third psychiatric revolution, the first two revolutions being initiated by Pinel and Freud (Moreno, 1964). More recently, the developer of Thought Field Therapy (TFT), a prominent energy therapy, claimed to be able to cure specific phobias in 5 minutes or less (Callahan, 1985), and several websites assert that hypnosis is 30 times more effective for weight loss compared with no treatment (e.g., see http://johnmongiovi.com/pages/weightloss).

Proponents may further assure clients and practitioners that their "complete satisfaction" will be guaranteed. It is perhaps worth noting that there have been few or no changes in the overall effect sizes in psychotherapy outcome over the past three decades (Budd & Hughes, 2009), suggesting that humility with respect to the prospect of treatment breakthroughs is in order.

Other commonly used terms and phrases to beware of include "simple, but powerful treatment"; "breakthrough"; "remarkable advance"; "paradigm shift"; "miracle cure"; "transformative," "life-changing" or "uniquely effective" treatment; "dramatic" or "remarkable" improvements; "unique and ultimate training"; "life-changing benefits"; and "deep psychological healing." One should also be wary of such terms as "proof" or "cure." These two terms, although widely used, are suspect given that virtually all scientific claims are provisional and that few if any psychological treatments are associated with close to 100 percent symptom remission.

In other cases, the hyped claims may be subtler, but arguably just as problematic. For example, some proponents of mindfulness interventions, a heterogeneous class of treatments that holds some promise for treating mood and anxiety disorders, have asserted that mindfulness is markedly superior to extant interventions for depression and other conditions (see Coyne, 2017, and van Dam et al., 2017, for discussions of the overpromotion of mindfulness techniques relative to the strength of the scientific evidence). Nevertheless, meta-analyses offer at best mixed and largely negative evidence for this claim (e.g., Khoury et al., 2013).

(2) Advocates inform patients that "If this treatment does not help you, then nothing else will." They strive to convey a powerful expectancy that reinforces treatment outcomes at the expense of sound scientific information that informs patients. This propensity may engender unrealistic hopes among patients. In addition, it may undermine practitioners' ethical obligations to describe interventions accurately and provide patients with fully informed consent (see also Blease, Lilienfeld, & Kelley, 2016).

(3) Advocates advance claims that one can – or needs to - learn the technique from a "master," a "leading expert," "a renowned specialist," and so on. In this regard, Meehl (1992) warned of the *guru omniscience fantasy*, the temptation to believe that one glorified expert can provide most or all of the answers to exceedingly complex psychological questions. As one example, Arthur Janov, founder of primal therapy (colloquially called primal scream therapy), was widely viewed as a guru and virtual messiah by many of his therapeutic acolytes, as well as by celebrities, such as ex-Beatle John Lennon and his wife Yoko Ono (Fox, 2017). Nevertheless, even recognized academicians can be elevated by their followers to "guru" status. In some cases, the treatment developer may have discovered the approach in a sudden personal epiphany, which may contribute to the mystique of the approach.

(4) Advocates rely heavily on the endorsements of presumed leaders in the field, often without offering references to support such endorsements. For example, many therapists in the trauma field cite Bessel van der Kolk as an advocate and endorser of their approach. Although the endorsements of well-established experts can sometimes be informative for

consumers, this practice should never substitute for systematic research evidence.

(5) Advocates establish a coterie of trainers and perhaps an international organization to promote the treatment. They often use public media (television, blogs, magazine articles) to oversell their treatment approach. In addition, they are "slick salespersons," setting up clinics, training settings, workshops, and in-house conferences. Treatment proponents may also promote advanced, multi-level training, and sell paraphernalia and tapes that accompany their treatment approaches. For example, some advocates of eye movement desensitization and reprocessing (EMDR) sell wands and "Megapulsars" to assist them with providing bilateral stimulation (see https://www.colleenwest.com/for-therapists/what-equipment-do-i-use/). Proponents may require that trainees sign confidentiality statements that they will not share treatment protocols with others.

(6) Advocates provide a certificate or diploma indicating that one has taken the training and can now call oneself an X therapist. They may offer to place clinicians' names on a referral list of Certified X practitioners.

(7) Followers of the treatment are insular. They create specialized listservs and Facebook pages for advocates of the intervention to share their positive experiences and to criticize skeptics of their perspectives, newsletters for treatment acolytes, and special interest groups at conventions.

(8) Advocates make frequent use of "psychobabble," psychological verbiage that sounds scientific but in fact contains little or no content, to market their treatment approach (Rosen, 1977). Consumers should be especially dubious of advertisements or courses that make extensive and uncritical use of such terms as "inner child," "internal family systems," "closure," "codependency," "attachment wounds," "sex addiction," "holistic healing," "synergy," and so on, or that invoke concepts from quantum mechanics to explain psychological change principles (see Hummler, 2017, for a critique of the use of quantum mechanisms to explain everyday phenomena).

(9) Advocates liberally use “neurobabble” and naïve biological reductionism (often accompanied by brightly colored functional imaging figures or diagrams of the brain) to promote their treatment approach. Such neurobabble may involve the use of such terms as “neuro-networks,” “synaptic networks,’ “hemispheric synchronization,” “right brain attachment,” “sensorimotor integration,” “memory integration,” “body memories,” “reptilian brain,” or “neuroplasticity,” especially when they are detached from their original meanings. A further and largely unappreciated problem is that many and arguably most “brain-based therapies” are not ready for application to patients given our present lack of understanding of how to bridge the vast gulf between the neural and psychological levels of analysis (Francken & Slors, in press). . In other cases, proponents may overinterpret weak or ambiguous brain imaging data in the service of making strong claims. For example, psychiatrist Daniel Amen (2001), who is a regular fixture on public television, has argued that the brains of a well-defined subset of individuals with attention-deficit/hyperactivity disorder are marked by a “ring of fire” characterized by pronounced overactivation in multiple brain regions. Nevertheless, the scientific evidence for the “ring of fire” activation pattern is feeble (Hall, 2013).

Exacerbating this problem, proponents of brain-based treatments often resort to dubious neurological hypotheses to explain the apparent success of their approach. Such hypotheses are frequently couched in neuroscientific terminology (see Schwartz, Lilienfeld, Meca, & Sauvigne, 2016). For example, consider the following passage from a scholar’s effort to offer a neurobiological basis for the effectiveness of EMDR: the constant reorienting of attention demanded by the alternating, bilateral visual, auditory, or tactile stimuli of EMDR automatically activates brain mechanisms which facilitate this reorienting. Activation of these systems simultaneously shifts the brain into a memory processing mode similar to that of REM sleep. This REM-like state permits the integration of traumatic memories into associative cortical networks without interference from hippocampally mediated episodic recall…Once successfully integrated, corticohippocampal circuits induce the weakening of the traumatic episodic memory and its associated affect (Stickgold, 2002,

pp. 71-72). Although this explanation may or may not be correct, it is premature in light of intense scientific controversy over whether the eye movements of EMDR are even relevant to its efficacy (Devilly, Ono, & Lohr, 2013; Lee & Cuipers, 2015). In this regard, practitioners should bear in mind "Hyman's maxim," named after psychologist Ray Hyman: Before trying to explain *how* something works, one should first verify *that* it works (Hall, 2014)..

(10) Advocates are defensive and thin-skinned about their approach. They often question the motives, background, and training of those who have raised concerns regarding the efficacy or theoretical basis of their treatment approach. They may argue that "outsiders" are not qualified to evaluate their approach, because they have not administered the treatment themselves.

In addition, such advocates frequently neglect to discuss or even acknowledge legitimate criticisms of their treatment approach. When they do mention criticisms, they frequently present them in straw-person form that can be easily rebutted. Advocates fail to mention the results of dismantling studies that question the ostensible theoretical basis of their treatment approach, or the absence of such studies.

(11) Advocates rely extensively on anecdotal evidence at the expense of controlled outcome data (e.g., "Read these testimonials from three people who claim that treatment X helped them"). Anecdotal evidence from multiple satisfied patients sometimes provides sufficient grounds for *investigating* a novel treatment in greater depth, but it rarely if ever provides sufficient grounds for concluding that the treatment is effective (Davison & Lazarus, 2007; Lilienfeld et al., 2014). Putting it somewhat differently, anecdotal evidence can often be enormously helpful in the context of discovery – hypothesis generation – but it is rarely informative in the context of justification – hypothesis testing (see Reichenbach, 1938). As the old saw reminds us, "the plural of anecdote is not evidence" (Ratzman, 2002, p. 169).

(12) The treatment claims are marked by an absence of clear *boundary conditions* (Hines, 2003). Advocates may claim that the treatment approach can be applied successfully with patients who suffer from a wide variety of psychiatric and physical conditions, as well as across multiple age groups, without any supportive clinical trial evidence. Some may even claim that their approach works for pets. Advocates may imply that their treatment "fits all" or "cures all" ("One size fits all"). For example, the developer of TFT insisted that this treatment is efficacious not only for adults but for "horses, dogs, cats, infants, and very young children" (Callahan, 2001, p. 1255).

(13) Advocates maintain that their intervention is "evidence-based," "empirically supported," or "empirically validated," but they define "evidence" broadly and subjectively, referring largely or exclusively to their informal clinical observations (e.g. "I saw it work with my clients, and that is my evidence") or to informal reports from clients rather than systematic sources of evidence obtained from well-controlled studies.

Research evidence red flags

(14) Advocates maintain that their treatment approach is "evidence-based" because it has met a low criterion for evidence, such as two randomized controlled trials demonstrating significant differences from no treatment. Nevertheless, advocates do not discuss effect sizes, nor provide details about the exclusionary criteria of the patients. They also do not report on drop-out rates or follow-up data. Advocates may also advance vague claims without referencing them, such as "More than X number of studies have consistently demonstrated efficacy and superiority," without citing or critically evaluating them.

(15) Advocates do not present a critical account of the scientific validity, or theoretical basis, for the effectiveness of the proposed treatment. They frequently offer little or no scientific basis for the proposed change mechanisms for the treatment. Many energy interventions, such as Emotional Freedom Techniques (EFT) and TFT, exemplify this problem. The intervention may "work" (in the weak sense of outperforming a no-treatment control group), but this success probably has little or nothing to do with the proposed treatment model. In particular, the

intervention may perform better than no treatment or than weak control groups largely or entirely because of nonspecific factors, such as placebo effects or the beneficial influence of therapeutic support (Frank & Frank, 1963).

In other cases, however, advocates *do* supply a theoretical rationale, but it conflicts overwhelmingly with known scientific evidence. That is, the treatment rationale lacks "connectivity" with well-established science (Stanovich, 2012). For example, proponents of energy therapies claim that psychopathology is produced by blockages in invisible, unmeasurable energy fields that violate the known laws of physics. Proponents of hypnotic regression therapy claim that hypnosis can recover distinct and detailed memories that date prior to the onset of infantile amnesia. Some maintain that they can bring back memories from before birth, or even from past lives (Singer & Lalich, 1996).

(16) Advocates routinely resort to multiple implausible "ad hoc hypotheses" (after-the-fact excuses or loopholes) to explain away negative findings. This indiscriminate use of ad hoc explanations for unsupportive findings renders the key treatment claims difficult or impossible to falsify. As a consequence, the theoretical rationale for the intervention becomes a "moving target." For example, when advocates of EMDR were confronted with controlled research evidence that their intervention did not outperform a fixed eye movement condition, some responded that it did not disconfirm the intervention's theoretical rationale because the eyes "wanted" to move (see Lilienfeld et al., 2014) As another example, in response to a published study of EFT that demonstrated comparable effects on phobic fear from tapping on a doll as from tapping on oneself (Waite & Holder, 2003), the creator of the method contended that because the fingertips themselves contain energy meridians, this control condition was invalid (Craig, 2003). In other cases, advocates of a therapy may claim, without adequate justification, that unsuccessful replications of their positive treatment results are attributable to failures to implement the treatment protocol with adequate fidelity (see DeBell & Jones, 1997 and Rosen, 1999, for critiques of such ad hoc reasoning by proponents of EMDR).

(17) Advocates compare their favored approach with "weak" comparison groups, that is, "intent-to-fail" conditions, which are virtually guaranteed to yield null or weak effects (Westen & Bradley, 2005). They do not compare their treatment with "bona-fide" conditions that are intended to be efficacious or effective (see Wampold et al., 1997). In other cases, advocates may compare their proposed treatment with a diluted or weaker version of a comparative treatment. For an example, see Foa et al.'s (1999) comparison of Prolonged Exposure versus Stress Inoculation Training (SIT), in which the third application phase of SIT was omitted (Meichenbaum, 2017).

(18) Advocates do not report on or acknowledge potential *allegiance effects* (see Luborsky et al., 1999), that is, positive outcomes that depend on whether the primary investigator was favorably disposed to the intervention, or on who conducted the outcome studies. Allegiance effects may help to account in part for another phenomenon, namely, the *decline effect* ("the law of initial results"), in which effect sizes from treatment studies in early trials tend to drop off over time (Lehrer, 2010; Schooler, 2011). Initial positive effects for a given psychotherapy may sometimes be inflated because early studies were conducted by enthusiastic adherents of the intervention ('strike while the iron is hot"); these effect sizes may shrink when the intervention is later examined by impartial investigators (see Johnsen & Friborg, 2015, for potential evidence of decline effects for cognitive-behavioral therapy; but see Ljótsson, Hedman, Mattsson & Andersson, 2017 and Waltman, Creed, & Beck, 2016; for alternative views). The same principle holds in some domains of psychiatry, where an old adage holds that one should "use the new drugs while they still work." For example, the efficacy of antipsychotic medication appears to have decreased in recent decades (Leucht, Corves, Arbter, Engel, Li, & Davis, 2009), although some of this decline may also reflect more rigorous methodology in more recent studies.

(19) Advocates do not independently determine whether the treatment rationale offered to the alternative treatment and control groups was as credible as for the advocated treatment. This potential confound can lead to differences in expectancy effects across groups. Such advocates also do not acknowledge the potential role of non-specific treatment factors,

such as the therapeutic alliance, expectancy effects, and other placebo-related effects. For example, their studies do not include measures of the ongoing quality of the therapeutic alliance, such as the Therapeutic Alliance Scales, or the Quality of Relationship Measures, or session-by-session treatment-informed feedback (Prescott et al., 2017).

Conclusions

David Shakow (1969), one of the founders of modern clinical psychology, wrote that "psychology is immodest" (p. 146). By this, he was referring largely to the habitual propensity of psychologists to promise far more than they can deliver. Yet science, including clinical science, is fundamentally a prescription for intellectual humility, as it reminds us that we can all fool ourselves and be fooled by others (Lilienfeld et al., 2017; McFall, 1991; Tavris & Aronson, 2007). Such humility should extend to all domains of clinical practice, including the marketing, promotion, evaluation, selection, and administration of treatments.

We expect this provisional 19-item checklist to evolve in response to constructive feedback. This checklist is itself a modest step toward safeguarding practitioners and other consumers of psychotherapy against exaggerated claims and ideally, toward instilling a sense of healthy self-doubt in clinicians. Although our checklist is designed primarily for professionals who are knowledgeable regarding research design, many of the warning signs and red flags for identifying hype, especially the first 13, can be profitably used by members of the general public and media resource outlets. More broadly, a number of the checklist items may also be helpful for spotting hype in (a) clinical assessment and (b) other domains of psychological science, such as social psychology, developmental psychology, and neuroscience (e.g., see Ferguson, 2015, and Lilienfeld, Marshall, Aslinger, & Satel, 2017, for discussions).

We encourage consumers of interventions, especially those that are largely or entirely untested, to bear this checklist in mind when appraising the scientific status of treatment claims. We also believe, however, that users will find this checklist helpful even when

evaluating claims concerning well-established therapies, including those on lists of empirically-supported treatments. Many proponents of such interventions have hardly been immune to hype, and practitioners should not fall prey to the error of concluding that a treatment is a “gold standard” or is “highly effective” merely because it is included on a list of empirically-supported therapies.

We should be clear that we are not discouraging creativity. This checklist does not preclude or diminish the importance of developing novel techniques, including those for which the evidence base is presently minimal or nonexistent. Clinical innovation is an essential driving force in the scientific progress of psychotherapy (Lazarus & Davison, 1971; Simon & Ludman, 2009). Therapists should not hesitate to invent or discuss new and largely untested interventions so long as they openly acknowledge the limitations of the evidence base (Blease et al., 2016).

As noted earlier, an overriding objective of the checklist is to cultivate an enduring habit of healthy self-doubt among clinicians. As Carl Sagan (1995) observed, we can think of science as little voice in our heads that incessantly intones, “You might be mistaken. You’ve been wrong before” (p. 39). Once readers have perused the checklist, they may wish to ask themselves the following question: Am I open to questioning and modifying any of my beliefs, claims, or clinical practices.

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Thank you for your interest in my LEGACY course.

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