Use of the 49-word protocol (alert hypnosis) to reduce anxiety: a case series

Running title: Anxiety reduction during alert hypnosis

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David Wark's latest iteration of alert hypnosis, the "49-word protocol," reduces performance anxiety. Several case studies have demonstrated improvements in the behavioral responses of subjects using this technique. This case series focuses on the more immediate emotional impact, such as the reported reduction in anxiety, on subjects who have benefited from David Wark's "49-word protocol."

In this study, we compare the benefits of the "49-word protocol" to those of the mindfulness protocol. We compared the anxiety-reducing elements of alert hypnosis (49-word protocol) and a mindfulness technique (Otani, Akira) called "touch and return." The Profile of Mood States tension and anger-hostility subtests were administered before and after each intervention as self-reported measures of mood and anxiety.

Keywords: Alert hypnosis, mindfulness, anxiety, stress

Introduction

While alert hypnosis reduces anxiety (Wark, 2015), there is a spectrum of physical activity involved in alert hypnosis. The "49-word protocol" is a form of alert hypnosis that does not include as much movement as other alert hypnosis protocols (Wark, 2006) (Bányai, 2018), which involve more movement to elicit a trance state. For example, Banyai, using alerting suggestions paired with cycling on a stationary bike, was able to produce trance in the same way as traditional elicitation techniques, as measured by the Standford Hypnotizability Susceptibility Scale (Banyai & Hilgard, 1976). David Wark provided a version of alert hypnosis that prompts the subject to focus on a goal, using memory or imagination to describe how they would experience the change in their behavior. In doing so, he then uses eye fixation involving less movement as part of the induction, yet taking advantage of the phenomena of the Troxler effect (Wark, 2023b), with a lessening of peripheral vision upon a focal point. After experiencing this effect, it

has been reported that subjects experience a greater visualization of their intended behavior without undue anxiety.

The “49-word protocol” entails the subject identifying a vivid personal memory that will aid in performing a life task, followed by the “eyes open” prompt, where the subject focuses on a spot. The subject pairs a breath with a focal point to elicit changes in the visual field through the Troxler effect. While the outer peripheral field becomes blurred and the focal point becomes vivid, subjects report added clarity and focus on their target performance task envisioned at the beginning of the protocol. A benefit of this protocol is that it decreases the anxiety that detracts from performance.

David Wark and Bruce Eads described the benefits of alert hypnosis in decreasing different types of anxiety, such as post-traumatic stress disorder (Eads & Wark, 2015) and phobias (Wark, 2023b). Alert hypnosis has been used in the treatment of depression (Bányai et al., 1993), fibromyalgia (Martínez-Valero et al., 2008), performance anxiety in athletics (Robazza & Bortoli, 1995), and academic test-taking (Wark, 1996).

A problem with many studies on hypnosis for the treatment of anxiety is that the actual protocol was not provided and/or was ill-defined. In a meta-analysis of the impact of hypnosis on anxiety by Valentine et al. (2019), 15 studies with a control group demonstrated that hypnosis reduced anxiety. However, Valentine et al. (2019) noted difficulties in identifying the exact hypnosis protocols used in these studies. By contrast, the “49-word protocol” used in our study is open source (Wark, 2023a) and easily reproducible by researchers and clinicians.

The focus of this study was to evaluate whether alert hypnosis, “the 49-word protocol” reduces anxiety and helps with stress management. Compared to relaxation-

based hypnosis protocols, the “49-word protocol” can be especially useful in situations where the subject needs to be alert and requires to track a task with their eyes open.

While there is literature describing other effective treatments for anxiety reduction, it is useful to compare the relative efficacy of these treatments to alert hypnosis. Thus, in our case series the alert hypnosis protocol was compared to the use of a mindfulness protocol. In this study, mindfulness meditation was introduced using Akira Otani’s Touch and Return Technique (Otani, 2020). Jon Kabat-Zinn’s definition of mindfulness has been widely accepted as “paying attention in a particular way; on purpose, in the present moment, nonjudgmentally” by Kabat-Zinn (1995, p. 4).

Based on studies of the effect sizes of various therapeutic interventions, Valentine et al. (2019) suggested that “When compared with other therapeutic interventions, hypnosis appears to be as effective for treating anxiety as CBT (cognitive behavioral therapy), PMR (progressive muscle relaxation), and psychodynamic psychotherapy, and perhaps more effective than mindfulness meditation” (p. 357). However, other analyses in the literature have described the average effect size of hypnotic treatment (Cohen’s $d = 0.59$) as roughly equivalent to that of overall clinical mindfulness (Hedge’s $g = 0.55$) (Khoury et al., 2013).

Despite the distinctions between hypnosis and mindfulness practices, there is evidence that both techniques can reduce anxiety through different approaches. Otani (2020) noted that mindfulness practices involve a lifestyle and can be adopted by the psychological community as a clinical tool. Most notably, Jon Kabat-Zinn conducted some of the first studies using mindfulness practice as a clinical tool to not only address anxiety, but also pain (Otani, 2016).

When applied in a clinical setting, mindfulness can serve the same purpose as hypnotic techniques in terms of changing behaviors and promoting health. According to

(Otani, 2016), the touch and return technique is associated with a more open focus than the selective focus suggested through clinical hypnosis. Clinical hypnosis depends on therapeutic suggestions, whereas the mindful approach of touch and return is more of a detached observation. The therapeutic benefits of hypnosis rely on a more faded reality orientation than the generalized reality orientation of mindfulness practices (especially in the spirit of the vipassana tradition in Buddhist meditation) (Otani, 2016). The mechanism of change in mindfulness is decentering, whereas that in clinical hypnosis includes dissociation, regression, and expectancy (Otani, 2016).

Both alert hypnosis (49-word protocol) and mindfulness (touch and return) techniques have been reported to reduce stress. It would be useful to demonstrate that this occurs within the span of a session. Moreover, it will be valuable to determine whether one technique is more useful than another with subjects that are more amenable to hypnosis. We sought to establish whether alert hypnosis works better than mindfulness.

Hypotheses

(1) On the Profile of Mood States (POMS) (Heuchert & McNair, 2012), the subjects will have decreased scores compared to baseline measurements on the tension-anxiety subtest, as well as decreased scores on the hostility subtest.

(2) Greater reductions in subjective distress (as measured by the subtests of tension-anxiety and hostility on the POMS) will be noted after experiencing alert hypnosis (49-word protocol) vs. the benefit of the mindfulness meditation technique.

Method

This study had a single-subject design replicated with four subjects, all of whom were

already undergoing psychotherapy with the first author. Each subject had prior experience with clinical hypnosis as part of their treatment goal of increased relaxation.

Two subjects were introduced to the mindfulness meditation protocol first followed by alert hypnosis (49-word protocol), while the other two subjects were introduced to the 49-word protocol first, and the mindfulness second.

Each participant was assessed using the POMS at baseline. Two subjects were administered mindfulness meditation, before being reassessed using the POMS. Following that reassessment, the "49-word protocol" was administered to the participants, before they were reassessed with the same measure. The other two subjects who experienced the "49-word protocol" first received the POMS upon completion of hypnosis and then once again after the mindfulness meditation.

Despite the disparity in the performance goals of each subject, they can be compared by the measurement and direction of the changes in their subjective reported stress levels. We also revealed changes in behavior after the administration of the "49-word protocol."

To ensure comparisons between subjects regarding hypnotizability, each subject was assessed for levels of hypnotizability using the Elkins Hypnotizability Scale (Kekecs et al., 2016) at baseline before the administration of the hypnotic and mindfulness conditions.

Results

Hypothesis #1

All four of the studied subjects demonstrated a reduction in the tension-anxiety and hostility subtest scores from baseline, regardless of whether they were introduced to the alert hypnosis or mindfulness protocol first (see Figures 1 and 2).

[Figures 1 and 2 near here]

The subjects' hypnotizability did not appear to substantially influence the results regardless of whether the subject responded to the alert hypnosis protocol or the mindfulness protocol (see Figures 3 and 4).

[Figures 3 and 4 near here]

Hypothesis #2

As shown in the above figures, Hypothesis 2 was not supported, in that there was no greater advantage in using the alert hypnosis vs. the mindfulness protocol for each of these subjects. All of the subjects benefitted from both protocols in reducing tension and anger and hostility.

Case #1

Ethan is a 62-year-old married man who has been in psychotherapy for several years to address issues that involve over-functioning, similar to a parent, in his family of origin. This pattern persisted into adulthood, when he had trouble delegating work at his job as a manager to caretakers in a residential setting for developmentally disabled clients. This man experiences problems with social phobia to the extent that he is guarded against developing friendships outside his home and work relationships. He also suffers from panic episodes, which he controls through avoidance of social situations.

He has developed a longstanding use of meditation at home, and in this study, showed a preference to use the alert hypnosis/49-word protocol over the touch and return mindfulness protocol. He was assessed well into the mid-range of hypnotizability on the Elkins Hypnotizability Scale. He was interested in using alert hypnosis to envision himself as more relaxed, playful, and functioning in another job. During his therapy, he recognized that the group home is failing to maintain staff and creating a

burden on the few employees that are remaining, especially himself. However, it is too stressful for him to even think of changing his job at this point.

He also found that incorporating the 49-word protocol into his workday not only interrupted the myth that he had to respond to many of the staff demands as soon as possible, but that it provided a level of relaxation that was greater than simply switching to an alternative work task.

Case #2

Bob is a 64-year-old man who is married and recently retired from teaching history at a high school level; he has been diagnosed with bipolar disorder, which is well controlled with medication. His therapy has been centered on helping him deal with his anger outbursts triggered by his wife's demeaning responses to him and a rigidity that may more than likely be associated with her obsessive-compulsive pattern of behavior. He was sensitized to his lack of standing in the family, which was reminiscent of his family of origin where he felt overlooked. He used the 49-word protocol while at home rather than in his work setting. His work setting does not allow him to screen distractions while focusing on the alert hypnosis protocol. Bob also showed a preference for using the alert hypnosis/49-word protocol, which he used to help focus on the use of Tai Chi. He was found to be highly hypnotizable, as measured by the Elkins Hypnotizability Scale. Moreover, he was interested in using alert hypnosis to manage the strength of his anger when in conflict with his wife.

While not hypothesized for this study, Bob was notably more responsive to the alert hypnosis protocol than the mindfulness protocol regarding the fatigue-inertia subset of POMS. Although there was no significant change in his sense of fatigue compared to baseline after the mindfulness exercise, there was a marked improvement

in his vitality, as noted by the lowered complaints of fatigue, as measured by the Fatigued scores after experiencing the alert hypnosis condition (see Figures 5 and 6).

[Figures 5 and 6 near here]

Case #3

Case 3 was a 64-year-old widowed woman named Jessica who was in therapy to adjust to separation from her enmeshed and conflictual relationship with her family of origin. The woman had moved to another state to be closer to her adult children and their families. Ever since her husband's death from sequelae associated with his alcohol dependence, she has sought financial security through bookkeeping and her skills as a purchasing agent.

She is has close ties to her family of origin despite feeling betrayed by her brother, who was established in a family business by her parents; the brother subsequently fired her husband and then later herself due to problems with the viability of the business.

Jessica was in the low hypnotizability range according to the Elkins Hypnotizability Scale, and she showed a preference for the Otani touch and return mindfulness protocol, as a way of managing her stress. She found the touch and return technique useful, especially because she complained of rumination about the poor treatment she had received from her mother and siblings. She saw this as a way of gaining emotional distance from her family. Despite her mother's move to Florida, she has been summoned to manage the medical emergencies that her mother faces. Her siblings have not been responsive to her mother's needs. She has found that she has had to step in as a caretaker from afar due to the emotional paralysis of her sister as well as the avoidance of caregiving responsibilities by her other siblings.

Case #4

Andrew is a 34-year-old single man who is in a volatile relationship with his girlfriend who he has a child with. His girlfriend moved in with him when she was pregnant. In therapy, he had complaints associated with competing problems with impulse control, compulsiveness, and anxiety. These symptoms were associated with his diagnosis of attention deficit hyperactivity disorder and anxiety disorder with compulsive features and generalized anxiety. He is also contending with his girlfriend's mood lability.

Andrew was found to be highly hypnotizable and showed a preference for using alert hypnosis to decrease his anxiety level during his workdays. He reported that the effects of alert hypnosis were more noticeable than the way that he was using meditation in the morning. Despite already using meditation in the mornings, he found it easier to incorporate alert hypnosis into his workday. He saw this technique as being easier to extend throughout the day. Andrew was introduced to meditation and mindfulness exercises earlier during his psychotherapy, and he used mindfulness similar to the Otani, touch and return protocol.

Discussion

This case series adds to other reports that alert hypnosis, in particular, the "49-word protocol," has an impact on reducing self-reported anxiety and anger. Moreover, beyond the benefits of reducing anxiety, two of the subjects experienced less inertia and fatigue after experiencing alert hypnosis. Past studies comparing traditional hypnosis, with eyes closed vs. alert hypnosis, have acknowledged that the suggestions of increased alertness and energy can still occur while the individual is in a trance state. As mentioned earlier, Banyai and Hilgard (1976) demonstrated that the suggestions of alertness vs. drowsiness both produced trance phenomena when tested in the Stanford Hypnotic

Susceptibility Scale, Form B (SHSS-B)

Even though different neural mechanisms are thought to be underlying alert hypnosis and touch and return both reduce anxiety levels in subjects. Lynn et al. (2012) described hypnosis as a decoupling between regions of the brain involved in cognitive control, which involves the anterior cingulate cortex (ACC) and prefrontal cortex (PFC), In contrast. mindfulness, such as the touch and return protocol, improves the connectivity of self-monitoring and cognitive control, which is also associated with the ACC and the PFC (Otani, 2016).

It would be useful to measure whether there are differences in the regions of the brain that are involved in stress reduction during alert hypnosis vs. a traditional hypnotic elicitation. Wark notes that there is a reciprocal relationship between the ventral and dorsal regions of the ACC (Wark, 2015). When a subject is experiencing anxiety or sadness, the ventral regions of the ACC appear to be activated, which then leads to the dorsal regions becoming deactivated. For example, intense emotional responses to a threat emanating from the ventral region of the ACC may reduce memory and recall associated with the dorsal regions of the necessary material for effective decision-making. A hypnotic induction helps to decouple the dorsal regions of the ACC from the disruptive emotional interference associated with the ventral regions.

Notably, three of the subjects found alert hypnosis to be more effective in reducing anxiety than their current meditation practices. Further comparisons between the alert hypnosis and mindfulness protocols could be useful. It would also be valuable to conduct a follow-up study on how the subjects end up using the two protocols in the future. Moreover, future studies with longer follow-up periods would be useful to determine how alert hypnosis not only affects mood, but also the performance goals of subjects. Moreover, it would be useful to compare whether those who are determined to

be highly hypnotizable show a preference for alert hypnosis over other anxiety-reducing techniques.

This study is only the beginning of identifying the short-term benefits of the protocol. In the future, it will be necessary to conduct a pilot study to show whether there are advantages over alert hypnosis compared to other anxiety reduction techniques, such as mindfulness, "touch and return," or other meditative approaches. Ideally, each group would be randomized and would receive separate anxiety-reducing treatments to compare without the confounding factor of sequencing effects that could be at play in this case study. Further study is required to not only show that the "49-word protocol" is effective in reducing anxiety during the elicitation period but also upon follow-up. Perhaps, even including the use of a daily diary to log the frequency of times that subjects had used the alert hypnosis (49-word protocol) during the assessment period.

Further studies should also attempt to evaluate the different elements of the "49-word protocol" elicitation. For instance, did the subjects experience mood improvement because of the suggestion to focus on an empowering memory that would help them solve a challenge, because of the suggestion to reduce distracting stimuli by focusing on a single spot, or because of the suggestion to pair their breath with the focusing technique?

Moreover, the importance of the "49-word protocol" producing a real or vivid image remains to be determined. Simply asking the subject during the alert hypnosis protocol to rate how real the experience helped cue them to attempt to make the experience vivid. The instructions for 49words.org look for how lifelike and real the recollection of competence contrasting with an imagined experience.

There is utility in assessing the vividness of the experience for the subject along the continuum of imagination. Highly suggestible subjects tend to have a greater vividness of mental imagery, increased absorption into the experience, and a capability to assume a different role (Terhune & Oakley, 2020). Moreover, Terhune & Oakley (2020) report subtypes of highly suggestible subjects with a superior visual imagination, while others are characterized as having high dissociative capabilities without necessarily having a superior ability to create spontaneous mental images as part of an induction.

Future research could attempt to measure not only the hypnotizability of the subjects but also other components of being highly suggestible, such as a dissociative measure like the Dissociative Experiences Scale - Revised (Carlson & Putnam, 1993). . Different from dissociation as a subtype of highly hypnotizable subjects, it would be valuable to assess the experience of subjects in terms of the vividness of mental imagery, such as by using the Vividness of Visual Imagery Questionnaire (Marks, 1989)

Subjects with a low ability to use imagery may not necessarily have low hypnotizability. The population who has difficulty using imagery in trance has been referred to as subjects with aphantasia; however, there have been reports that subjects with aphantasia can achieve trance through other senses and ways of becoming absorbed in the hypnotic suggestions (Trevena, 2023; Cabbai et al., 2024).

While this study has attempted to examine alert hypnosis and mindfulness separately, it is noteworthy that in clinical practice, there have been advantages in the integration of both methods (Otani, 2016; Elkins & Nicholas Olendzki, 2018; Olendzki et al., 2020), including the way in which hypnosis could provide a comfortable condition for using mindfulness practice. Elkins and Olendzki define “mindful

hypnotherapy" as "an intervention that intentionally uses hypnosis (hypnotic induction and suggestion) to integrate mindfulness for personal and therapeutic benefit (Elkins & Olendzki, 2018).

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Disclosure statement

The authors declare that they have no competing interests.

Figure captions

Figure 1. POMS tension-anxiety T scores with alert hypnosis were introduced first.

Figure 2. POMS tension-anxiety T scores with mindfulness meditation administered first.

Figure 3. POMS anger/hostility T scores with alert hypnosis administered first.

Figure 4. POMS T-scores for anger/hostility with mindfulness administered first.

Figure 5. POMS T scores for fatigue-inertia with alert hypnosis administered first.

Figure 6. POMS fatigue.