

Feasibility of Attention Restoration Theory-Driven Hypnotherapy for Fatigue in Cancer Survivors

Mattie Biggs, B.A., Joshua Rhodes, B.S., Britini Hester, M.S., & Gary Elkins, Ph.D., ABPP, ABPH

Baylor University Department of Psychology and Neuroscience, Waco, TX, USA

Society for Clinical and Experimental Hypnosis, October 2020, Virtual Conference

Abstract

This study aimed to assess the feasibility of attention restoration theory (ART) - driven hypnotherapy to address cancer-related fatigue (CRF). Six participants with CRF completed the study. Participants completed measures of fatigue and pain pre and post five sessions of ART- driven hypnotherapy, each of which followed a treatment manual. Results indicate that participants experienced reductions in fatigue, fatigue bothersomeness, and pain following the intervention. Additionally, participants reported high levels of treatment satisfaction. This innovative intervention of ART-driven hypnotherapy appears to be feasible and warrants further study in a controlled trial with a larger sample.

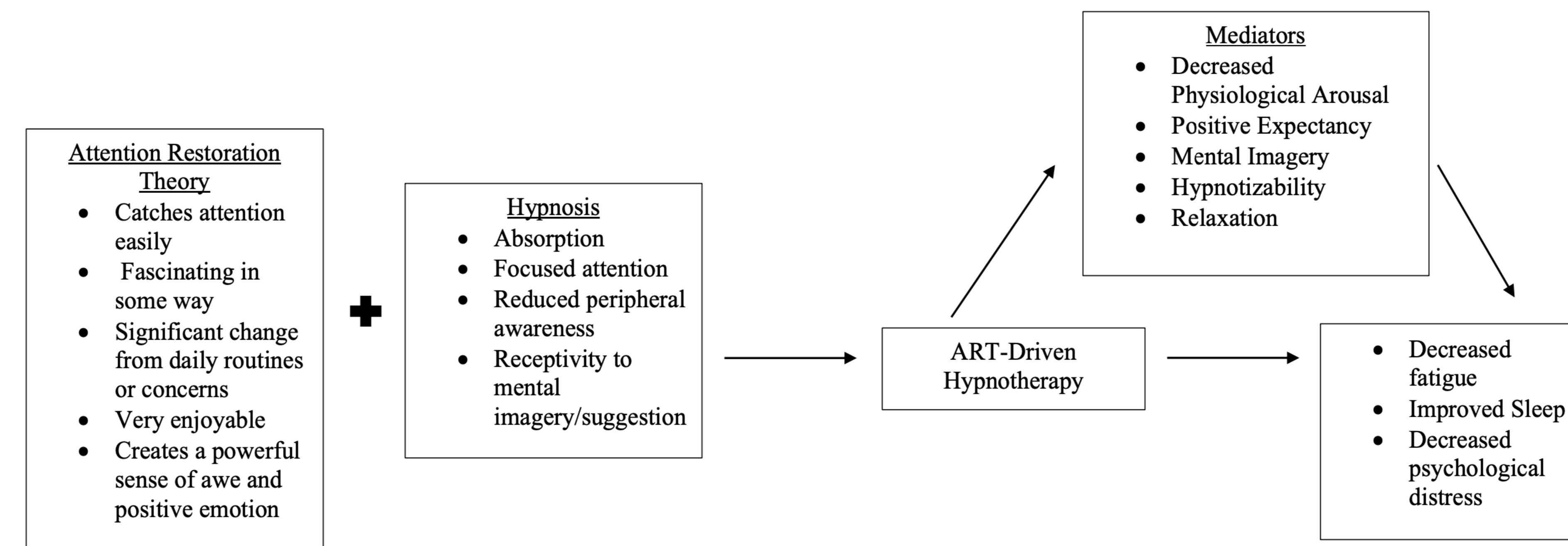
Introduction

- 30 to 38% of cancer survivors suffer from persistent and severe cancer-related fatigue (CRF) which can persist five to ten years after diagnosis (Bower et al., 2006).
- Pharmacological agents have not been shown to be especially effective, and there remains a lack of consensus regarding the best treatment for CRF (Minton et al., 2008; Moraska et al., 2010; Minton et al., 2011). However, nonpharmacological interventions have shown some potential. (Cramp, Daniel & Cramp, 2008; Jacobsen, Donovan, Vadaparampil, & Small, 2007; Lawrence, Kupelnick, Miller, Devine, & Lau, 2004; Berger et al., 2015).
- Attention Restoration Theory (ART) combines directed attention and restorative elements (such as nature) as an innovated treatment of CRF (Kaplan, 1995; Kaplan, 2001).
- Research regarding hypnosis and CRF is limited but shows preliminary promise (Jensen et al., 2012; Montgomery et al., 2009).
- it is not always feasible for a patient to physically be in nature, such as go on a hike in the mountains, following treatment. In a hypnotic state, a patient can experience this as if it is actually happening, without having to physically be in nature, resulting in a much more feasible treatment plan for many patients.

Current Study

- There is a great need for novel interventions targeting better fatigue management among cancer survivors
- The current pilot study proposed a new model for ART-driven hypnotherapy for reducing CRF that is not only innovative, but may provide relief to many individuals suffering from CRF.

Proposed Model



Method

Participants

Participants were primarily recruited through physician referral, although fliers and announcements were also distributed to the general population

Inclusion Criteria

- At least 18 years of age
- Have a history of cancer, though currently without evidence of malignant disease
- Participants must have been continuing to experience CRF, indicated by the self-report of a “6” or greater on a numbered analogue scale of fatigue, for at least one month after completion of standard medical treatment

Exclusion Criteria

- Currently undergoing cancer treatment
- Previous diagnosis of borderline personality disorder, major depression, or substance abuse
- Currently using hypnosis
- Any other medical or psychiatric condition which, in the opinion of the investigator, put the patient at potential risk

Six Participants

- Three female, two male, one unreported
- One individual had a history of colon cancer; one individual had a history of lymphoma, bone marrow, and bladder cancers; one individual had a history of head and neck cancer; and three individuals had a history of breast cancer.

Procedure

- Baseline Visit: Participants were given informed consent and then were asked demographic questionnaires as well as baseline questionnaires.
- Hypnosis Session: Individuals received five therapy sessions by a research assistant trained to deliver hypnosis. Each session included hypnotic induction with suggestions for participants to imagine themselves in their favorite restorative place in nature. After the first visit, participants were given an audio recording to practice the ART-driven hypnotherapy daily.
- Endpoint: Following the fifth hypnosis session, participants completed endpoint questionnaires.

Measures

- Fatigue: Participants were asked to evaluate their fatigue using the Brief Fatigue Inventory (BFI) (Mendoza et al., 1999). Participants also rated their current fatigue using a 10-centimeter visual analog scale (VAS).
- Pain: participants were asked to rate their least, worst, and typical pain on a VAS anchored by “no pain” (0) and “pain as intense as I can imagine” (10). This method has been used in previous studies (Elkins, 2010) and is seen as appropriate for clinical trials (Turk et al., 2003)
- Satisfaction: A numeric analogue scale, from 0 to 10, was used to assess patients’ satisfaction with the treatment they received during the study. A Subjective Global Impression of Change scale was also administered to evaluate participants’ perception of benefit from the effects.

Results

Average fatigue levels, as measured by the BFI, decreased from baseline ($M = 6.12, SD = 1.44$) to endpoint ($M = 2.65, SD = 1.27$), indicating a 56.70% improvement. Participants also reported decreased levels of current fatigue, as measured by the current fatigue VAS, from baseline ($M = 5.10, SD = 2.52$) to completion of session 5 ($M = 1.65, SD = 1.36$), indicating a 67.65% improvement. Reported levels of fatigue bothersomeness decreased from baseline ($M = 7.48, SD = 1.56$) to endpoint ($M = 1.82, SD = 1.69$), indicating a 75.67% improvement. Average pain levels, as measured by the pain VAS, decreased from baseline ($M = 2.46, SD = 2.54$) to endpoint ($M = 1.28, SD = 2.20$), indicating a 47.97% improvement.

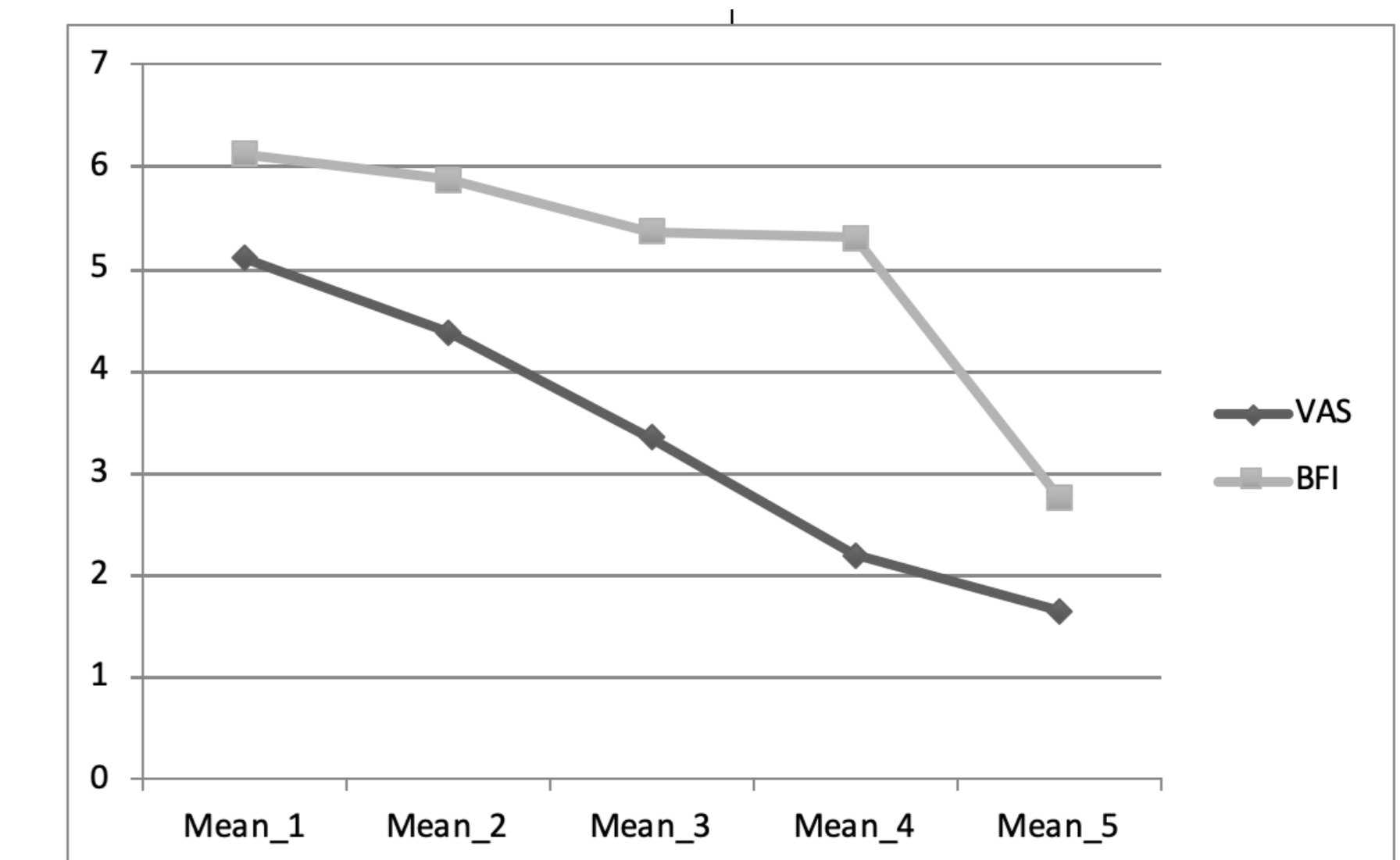


Figure 2. Participant mean scores for each individual treatment session.

Table 1. Subjective Global Impression of Change Since Beginning of Study/

Participant	Domain		
	Fatigue	Emotional State	Overall Quality of Life
1	+3	+3	+3
2	+3	+3	+3
3	+3	0	+2
4	+1	+1	+1
5	+2	+2	+2
6	+2	+1	+1

-3 = very much worse, -2 = moderately worse, -1 = a little worse, 0 = about the same, +1 = a little better, +2 = moderately better, +3 = very much better

Discussion

The long-term goal of this study is to reduce suffering and establish alternative options for cancer survivors suffering from chronic fatigue. Results indicate that CRF levels, as measured by the BFI, the fatigue VAS, and the fatigue bothersomeness VAS, were reduced following participation in the ART-driven hypnotherapy intervention. Additionally, participants were able to complete the intervention and had high levels of treatment satisfaction. Results of this study suggest that the intervention appears to be feasible and has potential to benefit cancer survivors. These results support the need to conduct clinical trials of ART driven hypnotherapy for CRF.

References

Please contact Mattie Biggs at mattie_biggs1@baylor.edu for reference list