Cognitive Behavioral Treatment for Post-traumatic Nightmares: An Investigation of Predictors of Dropout and Outcome

**PUBLICATION:** Psychological Trauma: Theory, Research, Practice, and Policy (2013, February 4); Advance Online Publication

**PUBLICATION TYPE:** Peer-Reviewed Journal Article

**KEYWORDS:** Stress disorders, post-traumatic stress disorder (PTSD), psychotherapy, nightmares, treatment outcome, drop out

**RESEARCH HIGHLIGHTS:**
- In this study, researchers examined treatment outcomes and treatment drop out among Vietnam veterans with PTSD who were experiencing nightmares. These veterans received either Imagery Rehearsal (IR) or Sleep and Nighttime Management (SN), two types of Cognitive Behavioral Therapy.
- Veterans were more likely to drop out of treatment if they were receiving IR treatment, were non-African Americans, had more traumas, or perceived low credibility of the treatment. Participants with a lower PTSD avoidance score were more likely to drop out of the SN treatment, possibly suggesting that higher functioning individuals feel the program moves too slowly.
- Veterans with severe PTSD symptoms and nightmares may benefit more from long-term group therapy treatment and individual sessions focused on PTSD than nightmare-specific cognitive behavioral therapy.

**AUTHORS:** Joan M. Cook, Ph.D.; Richard Thompson, Ph.D.; Gerlinde C. Harb, Ph.D.; Richard J. Ross, M.D., Ph.D.

**ABSTRACT:**
“This study examined factors predicting treatment dropout and outcome in 124 male Vietnam War veterans with chronic, severe post-traumatic stress disorder treated in a randomized controlled trial of two cognitive-behavioral group therapies for combat-related nightmares. Though significant bivariate predictors of dropout in the imagery rehearsal condition included non-African-American race, use of selective serotonin reuptake inhibitors, more traumas, and lower perceived treatment credibility, none of these variables uniquely predicted dropout in multivariate analyses. In the sleep and nightmare management condition, only low avoidance symptoms predicted dropout. Use of benzodiazepines and higher reexperiencing symptoms predicted posttreatment nightmare frequency in imagery rehearsal; although baseline sleep quality and higher avoidance symptoms predicted posttreatment sleep quality. In sleep and nightmare management, only poorer sleep quality predicted posttreatment nightmares, although poorer baseline sleep quality and higher avoidance symptoms predicted posttreatment sleep quality. Practical and clinical implications, including the use of “socialization” strategies (e.g., patient testimonials, in-depth explanation of treatment rationale), are discussed.”
Implications

**FOR PRACTICE**

Post-traumatic nightmares can cause daytime distress, impairment, sleep loss and lower sleep quality in veterans with PTSD; however, Cognitive Behavioral Therapy can help veterans with PTSD ameliorate their symptoms. Previous studies have shown higher dropout rates are related to a higher traumatic history, which the results of this study also support. In addition, the results of this study show low perceived credibility of treatment functions as a predictor of treatment drop out. To decrease treatment drop out and improve outcomes, clinicians should implement various socialization strategies which may include helping a veteran to assess their treatment goals, discussing the role of specific treatments or therapies in attaining these goals or showing video testimonials of other patients’ success to provide evidence of treatment benefits. Families of veterans with PTSD should be aware of the impact a veteran’s perception of therapy can have on treatment outcomes, and should work with clinicians to develop a positive view of therapy. Since the use of benzodiazepines and higher re-experiencing symptoms predicted post-treatment nightmare frequency in IR participants, clinicians should be cautious and thoroughly discuss these potential outcomes with veterans who may be using benzodiazepines. Clinicians and community advocates focused on helping veterans with post-traumatic nightmares can use the findings from this study to identify potential risks of treatment drop out and help veterans to access the benefits of these treatment programs.

**FOR POLICY**

Policy makers may need to focus on establishing procedures for the regular evaluation and improvement of programming for veterans with PTSD. Veterans suffering from post-traumatic nightmares can benefit greatly from treatments and therapies that are evidence-based and effective, although veterans with post-traumatic nightmares may not all benefit equally from the same therapies. Veterans who have a higher history of traumatic experiences will need to receive treatment for their PTSD symptoms before they receive IR or SN treatment for their nightmares, so policy makers may need to focus on providing structural and financial support to train clinicians and healthcare advocates in providing access to these therapies. Policy makers should work with healthcare professionals to be sure that veterans have access to effective and appropriate treatments for post-traumatic nightmares and a variety of therapies, including IR and SN.

**FOR FUTURE RESEARCH**

Future research examining potential treatments for veterans with post-traumatic nightmares will need to include a more varied population of veterans, as this study was limited to male Vietnam veterans with severe, chronic PTSD receiving treatment from VA hospitals. The experiences of female veterans, veterans from other service eras and veterans receiving care from private physicians may provide useful information for both researchers and healthcare professionals. Researchers should also examine the effects of characteristics that served as exclusion criteria in this study, including schizophrenia, substance abuse, sleep apnea and other medical disorders, to determine whether these factors play a role in treatment outcomes and treatment dropout rates. Future research should also explore the impact of psychotropic medications on treatment outcomes, as certain medications may lead to better outcomes for veterans with post-traumatic nightmares. The results of this study also indicate that there is a need for further exploration of IR and SN treatments, as few participants achieved significant improvement through one of these treatments. Future studies should explore both the efficacy of these nightmare-specific treatment programs and the impact of combining them, as receiving both treatments may have a more positive impact. Researchers should utilize long-term follow up assessments to evaluate the impact of these treatments, and session-by-session ratings of symptoms and treatment credibility, which allow for the examination of participant views of these therapies in terms of perceived helpfulness and effectiveness.

**AUTHOR INFORMATION**

Joan M. Cook, Ph.D.
Yale School of Medicine
National Center for PTSD
joan.cook@yale.edu

Richard Thompson, Ph.D.
University of Illinois at Chicago

Gerlinde C. Harb, Ph.D.
Philadelphia Department of Veterans Affairs

Richard J. Ross, M.D., Ph.D.
Philadelphia VA Medical Center
University of Pennsylvania