Long-term treatment effects of imagery rehearsal therapy for nightmares in a population with diverse mental disorders
van Schagen, A.M.; Lancee, J.; Spoormaker, V.I.; van den Bout, J.

Published in:
International Journal of Dream Research

DOI:
10.11588/ijodr.2016.1.24953

Citation for published version (APA):

General rights
It is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), other than for strictly personal, individual use, unless the work is under an open content license (like Creative Commons).

Disclaimer/Complaints regulations
If you believe that digital publication of certain material infringes any of your rights or (privacy) interests, please let the Library know, stating your reasons. In case of a legitimate complaint, the Library will make the material inaccessible and/or remove it from the website. Please Ask the Library: http://uba.uva.nl/en/contact, or a letter to: Library of the University of Amsterdam, Secretariat, Singel 425, 1012 WP Amsterdam, The Netherlands. You will be contacted as soon as possible.
Long-term treatment effects of imagery rehearsal therapy for nightmares in a population with diverse mental disorders

Annette M. van Schagen¹, Jaap Lancee², Victor I. Spoormaker³, & Jan van den Bout⁴

¹GGz Centraal Innova, The Netherlands
²Department of Clinical Psychology, University of Amsterdam, The Netherlands
³Max Planck Institute of Psychiatry, Munich, Germany
⁴Department of Clinical and Health Psychology, Utrecht University, The Netherlands

Summary. Nightmares are a common problem with debilitating consequences. Meta-analyses have revealed that imagery rehearsal therapy (IRT), in which the storyline of the recurring nightmare is changed, is the treatment of choice for nightmares. In a randomized clinical trial, we recently demonstrated that IRT was also effective in a population of patients with diverse mental disorders. In this trial, IRT showed moderate additional benefits over treatment as usual on nightmare distress, general psychopathology, and posttraumatic stress symptoms. In the current paper we report on the six- and nine month follow-up measurements of the IRT group of this trial. In the six- and nine-month follow-up the moderate improvements observed at post-treatment were sustained for all measures. This means that IRT has long-lasting effects, also in a sample with severe co-morbid psychopathology. IRT could be considered at an early stage in addition to the usual mental health treatment.

Keywords: Nightmares, imagery rehearsal therapy, comorbidity, mental disorders, follow-up

1. Introduction

The prevalence of nightmares is high with about 2-5% in the general population suffering from one or more nightmares a week (Sandman et al., 2013) and up to 30% in populations with diverse mental disorders (Swart, van Schagen, Lancee, & van den Bout, 2013). Nightmares are associated with various forms of psychological distress both in the general population (Lancee & Schrijnemaekers, 2013), as well as in a population of patients with diverse mental disorders: patients with frequent nightmares have more severe psychopathological symptoms than patients without nightmares (submitted manuscript).

Nightmares can be treated effectively with imagery rehearsal therapy (IRT; Augedal, Hansen, Kronhaug, Harvey, & Pallesen, 2013). With IRT, the script of the recurring nightmare is changed into a new dream with a different ending. Subsequently this new dream story is rehearsed by imagining it several times during the day. IRT has been extensively studied in general populations and in patients with posttraumatic stress disorder (PTSD). Several meta-analyses concluded that IRT is the treatment of choice for nightmares (e.g. Augedal et al., 2013).

Recently we have demonstrated the efficacy of IRT in a population with diverse mental disorders (van Schagen, Lancee, de Groot, Spoormaker, & van den Bout, 2015). In this randomized controlled trial we observed that IRT added to the treatment as usual rendered moderate effects on nightmare frequency, nightmare distress and psychopathology measures. These effects were sustained at the three-month follow-up consistent with previous research on samples with PTSD or traumatic experiences (Davis & Wright, 2007) or patients with major depression or PTSD and nightmares (Thünker & Pietrowsky, 2012). However, little is known about the long-term effects of IRT in a psychiatric population. In this paper we report on the six- and nine-month follow-up data of this trial with regard to the IRT condition only.

2. Method

2.1. Participants and Procedure

The study participants were patients with diverse mental disorders that received treatment at a secondary mental healthcare institute, GGz Centraal, at three locations in the Netherlands. In line with the declaration of Helsinki (2013) the study was approved by the Medical Research Ethics Committee of Isala Clinics, Zwolle, the Netherlands and was registered at Clinical Trials (ID: NCT00291031). Between January 2006 and July 2010 participants were recruited. Treating practitioners referred their patients to the study if they reported to have a minimum of three nightmares a month. After the procedure had been explained fully written informed consent was obtained from all participants.

After the baseline assessment, 90 participants were randomly assigned to the IRT condition or the treatment as usual condition (TAU). The mean age was 36.0 years (SD =
The treatment effects observed at post-treatment and three-
month follow-up were sustained at the six- and nine-month follow-up assessments. Compared to baseline, significant moderate time effects \((p < .05)\) were found for nightmares per week (6 months: \(b = -1.86; SE = 0.31\); 9 months: \(-1.94; SE = 0.32\)), nights with nightmares (6 months: \(b = -3.99; SE = 0.61\); 9 months: \(-3.85; SE = 0.62\)), nightmare distress (6 months: \(b = -6.73; SE = 1.37\); 9 months: \(-9.75; SE = 1.43\)), nightmare effects (6 months: \(b = -19.51; SE = 3.35\); 9 months: \(-24.09; SE = 3.41\)), psychopathology symptoms (6 months: \(b = -38.90; SE = 19.62\); 9 months: \(-52.97; SE = 19.94\)), and PTSD symptoms (6 months: \(b = -7.46; SE = 4.18\); 9 months: \(-11.78; SE = 4.25\)); Table 1, Figure 1). Please see supplementary table S1 for the corresponding imputed means. In general, there were only negligible differences in Cohen’s d effect sizes based on the imputed dataset compared with the Cohen’s ds from the observed data. In supplementary table S2 all the multi-level regression coefficients can be found.

4. Discussion

In this study we reported on the long-term treatment effects of IRT in addition to treatment as usual in a population with moderate to severe mental disorders. We observed that the moderate effect of IRT was sustained over a period of nine months for nightmare frequency, nightmare distress and effects, PTSD complaints and general psychopathology symptoms. These findings are consistent with earlier reports on long-term treatments effects in the general population (Lancee, Spoormaker, & van den Bout, 2011) and in patients with PTSD complaints (Davis & Wright, 2007). The current data extend these findings beyond the general populations or specific patient groups into a more diverse patient population with moderate to severe mental disorders.

Before discussing the implications of these findings we first want to mention a couple of limitations. A major limitation of the current study is that, due to ethical reasons, we did not have a control group at the six- and nine-month follow-up. At the three-month follow-up the additional benefit of IRT over treatment as usual alone, remained intact (van Schagen et al., 2015); therefore we think that the influence of time-effects is probably low. However, since we do not have these six- and nine-month follow-up control data, the results should be interpreted with caution. Additionally, we had several missing data. We tried to control for these with multilevel regression and multiple imputation but these remain estimations and should be treated as such.

These limitations notwithstanding we propose that the results are still clinically relevant since we observed an enduring moderate treatment effect in a complex patient population with severe and heterogeneous psychopathology. Therefore these findings are a useful addition to the literature because this study is more ecologically valid than the earlier studies with more specific populations e.g. (Davis & Wright, 2007).

We have shown that populations with severe co-morbid psychopathology also benefit from symptom-based treatments like IRT in the short and long-term. We propose that IRT should be considered at an early stage of treatment in addition to the regular mental health treatment since nightmares are debilitating and the associated sleep disruptions may be a maintaining factor for other mental problems, and IRT had a positive effect on comorbid psychopathology symptoms as well.

Acknowledgements
The authors are grateful to Laura Rooijmans and Mare ter Horst from GGz Centraal Innova for their assistance with the data entry. The first author (AvS) was granted with time to work on the publication from GGz Centraal Innova and Foundation Centrum ‘45.
References


Lancee, J., Spoormaker, V.I., & van den Bout, J. (2010). Nightmare frequency is associated with subjective sleep quality but not with psychopathology. Sleep and Biological Rhythms, 8(3), 187-193. DOI: 10.1111/j.1479-8425.2010.00447.x


Thünker, J., & Pietrowsky, R. (2012). Effectiveness of a manualized imagery rehearsal therapy for patients suffering from nightmare disorders with and without a comorbidity of depression or PTSD. Behaviour Research and Therapy, 50, 558-564. DOI:10.1016/j.brat.2012.05.006