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Brief treatment for nighttime fears and co-sleeping problems: A randomized clinical trial

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ABSTRACT

Sixty-eight 4–6 year old children who co-slept with their parents and who avoided sleeping alone due to intense nighttime fears were randomized to a brief combined parent-based intervention (CBT-based bibliotherapy plus doll) or a wait list control group. After the waiting period, the wait list participants were offered treatment. Co-sleeping patterns, sleep records, anxiety, general fears, and behavior problems were assessed with parent-report measures. Nighttime fears were assessed with parent-report measures and a single item visual analogue scale for the young children. Assessments were completed pre-treatment, post-treatment, and at 3 months following treatment. Results showed that the combined intervention was superior to the wait list control condition and that treatment effects were maintained at 3-month follow-up. This study provides initial support for use of CBT-based bibliotherapy plus doll in the treatment of nighttime fears. Such a treatment might be used to supplement standard CBT approaches in routine clinical practice or in a stepped care approach to treatment.

1. Introduction

Nighttime fears are common in children and are usually mild and transitory. However, for at least 20% of young children, bedtime becomes a great difficulty for families and is associated with recurrent and severe sleeping problems, anxiety, and suffering to both the child and the child's family (Gordon, King, Gullone, Muris, & Ollendick, 2007). The content of these nighttime fears vary, ranging from separation or loss of others (e.g., worry about parents dying), personal safety (e.g., fear of a kidnapper, a burglar breaking into the home), imaginary creatures (e.g., fear of ghosts and monsters), scary dreams, and fear of the dark and being alone.

Recently, Kushnir, Gothelf, and Sadeh (2014) found that children with severe nighttime fears also show a wide variety of other fears, exhibit more behavioral problems at nighttime and throughout the day, and show reduced effortful control. As such, nighttime fears may serve as a marker for anxiety vulnerability, and this vulnerability, in turn, might be mediated by poorer attentional control including decreased working memory (Kushnir & Sadeh, 2010). Furthermore, children with severe nighttime fears present additional sleep problems which been associated with behavioral problems and psychopathology, as well as with neurobehavioral, cognitive and academic difficulties (Kushnir & Sadeh, 2011). For example, moodiness and daytime tiredness caused by poor sleep can detract from the child's academic performance and the quality of relationships. In addition, due to the fear, the child may avoid sleeping outside the home (e.g., school camps, friends' homes) and affect the child's subsequent social development (Silverman & Treffers, 2001). Moreover, these fears persist into adolescence for some children (Gordon, King, Gullone, Muris, & Ollendick, 2007; Gordon et al., 2007a; Kushnir & Sadeh, 2012; Muris, Merckelbach, Mayer, & Prins, 2000; Muris, Merckelbach, Ollendick, King, & Bogie, 2001).

Co-sleeping is a common parental strategy for dealing with nighttime fears (Cortesi, Giannotti, Sebastiani, Vagnoni, & Marioni, 2008; Kushnir & Sadeh, 2011). In a study by Cortesi et al. (2008), more than 90% of cosleepers reported nighttime fears compared to about 15% of solitary sleepers and controls. In this study, cosleepers also showed more difficulty sleeping away from home, fear of sleeping alone and in the dark, and needing a parent present at bedtime. The requests of children to co-sleep are often reactive or occur in response to anxiety problems (Cortesi et al., 2008; Palmer, Clementi, Meers, & Alfano, 2018). According to Sadeh (2005), sleeping with parents in the short term is an effective way to resolve nighttime fears since children can avoid the situation of being alone at night and providing an opportunity for parents' closeness. However, according to Sadeh, in the long run, similar to other avoidance behaviors, it can be highly problematic and perpetuate the avoidance behaviors and co-sleeping behavior (Kushnir

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& Sadeh, 2011; Sadeh, 2005).

Although there is not a separate diagnosis for nighttime fears, they might be a part of other disorders. Baulking or refusing to sleep in the absence of an attachment figure, for instance, is a criterion for the diagnosis of separation anxiety disorder (American Psychiatric Association, 2013), whereas a pronounced fear of sleeping alone because of the darkness is a criterion for specific phobia (American Psychiatric Association, 2013). Indeed, on average, 85% of children with any anxiety disorder present with sleep-related problems such as difficulty falling asleep and nighttime fears, and evidence suggests that treating these problems may not only improve sleep quality but also result in an overall reduction in anxiety and related problems (Alfano, Ginsburg, & Kingery, 2007; Clementi & Alfano, 2014; Kushnir & Sadeh, 2012).

The efficacy of cognitive-behavioral therapy in the management of severe nighttime fears has been demonstrated in several studies (Clementi & Alfano, 2014; Gordon et al., 2007a; Kahn, Ronen, Apter, & Sadeh, 2017; Kushnir & Sadeh, 2012; Ollendick et al., 2009, 2015; Sadeh, 2005; Stewart & Gordon, 2014). Furthermore, researchers (Clementi & Alfano, 2014; Kahn et al., 2017; Kushnir & Sadeh, 2012) have offered evidence of sleep improvement and reduction in anxiety symptoms by interventions for nighttime fears, including brief and low-cost treatments. However, most studies reporting the effectiveness of treatments for nighttime fears are targeted at children 7 years or older and many of these interventions are not appropriate for children younger than 7 years of age due to limitations in cognitive development. Preschool children in particular may not understand instructions or techniques used in the treatment of older children (Barrett, 2001). Therefore the need for treatments that adjust the cognitive-behavioral techniques for young children is evident.

Among the brief and low-cost treatments that might be useful for preschool children and their families are programs that include bibliotherapy, a technique that uses the reading of books as an intervention for behavior problems and psychopathologies in young children (Lewis, Amatya, Coffman, & Ollendick, 2015; Rickwood & Bradford, 2012). This approach posits that it is possible, from the telling of stories, to enlist cognitive-behavioral therapy strategies such as exposure to situations that elicit anxiety responses, modeling, and reinforcement of desired behaviors (Rapee, Spence, Cobham, & Wignall, 2000).

The effectiveness of bibliotherapy for broad-based anxiety disorders in children and adolescents has been reported in the literature (Cobham, 2012; Coffman, Andrasik, & Ollendick, 2013; Parslow et al., 2008; Rapee, Abbott, & Lyneham, 2006). However, bibliotherapy for nighttime fears, specifically fear of the dark and sleeping alone, has only recently been examined in a study by Lewis et al. (2015) in a small sample of nine children between the ages of five and seven with diagnosis of specific phobia of the dark. A reduction of nighttime fears and overall anxiety level as well as an increase of the number of nights the children slept alone in their own beds was shown in this study. Coffman et al. (2013) point out the advantages of bibliotherapy with preschool children, including ease of administration, cost efficiency, heightened motivation for change, and ability to incorporate therapeutic components in a format attractive to young children.

With advantages similar to that of bibliotherapy, including its simplicity and low cost, a brief intervention for anxiety and fear was also recently developed by Sadeh et al. (Kushnir & Sadeh, 2012; Sadeh, Hen-Gal, & Tikotzky, 2008), entitled Huggy-Puppy Intervention (HPI). In their first study (Sadeh et al., 2008), Huggy-Puppy, a stuffed toy dog, was offered to the child in conjunction with a description of the puppy in order to encourage the child to care for the puppy. This procedure was effective in reducing anxiety symptoms with children exposed to stress in the context of war. The authors pointed out that the role of caregiver, that is, the delivery of care behaviors by the child to the stuffed toy dog in the intervention contributed to reduced stress.

In a revised version (Kushnir & Sadeh, 2012), the puppy is presented as a friend and companion during the night and he helps the child overcome the nighttime fears. In this study, the two puppy versions were evaluated in pre-school children who had nighttime fears. The results demonstrated a reduction in nighttime fears and an improvement in the sleep quality of the children who participated in both interventions with no differences between them. In this study, as well as in the earlier investigation by Sadeh et al. (2008), attachment and caring for the doll were associated with fear reduction. Kushnir and Sadeh (2012) emphasize the positive impact of these interventions on the child's sleep, since poor quality of sleep was associated with behavioral, cognitive and mood difficulties.

The extant literature (Gordon et al., 2007a; Kushnir & Sadeh, 2012; Lewis et al., 2015), much of which has entailed single case design studies, highlights the need for randomized controlled studies to assess brief and self-directed interventions to nighttime fears amongst children, to explore the maintenance of the effects of the treatment in a longer follow-up period, and to identify the specific components associated with the success of the treatment. Finally, Palmer et al. (2018) point out the need to intervene in co-sleeping behaviors in anxious children, since frequent co-sleeping may serve as a risk and/or maintenance factor of the pathology of anxiety in relation to disrupted sleep practices.

In light of these previous studies, we wrote a book for preschool children who evidenced co-sleeping difficulties due to intense nighttime fears. We called our book, "Sleeping with Rafi: Good Night My Child" (Rafihi-Ferreira, Silvares, & Ollendick, 2016). The book was based on the one used by Lewis et al. (2015). In addition, we incorporated elements of a stuffed toy as used in the study by Kushnir and Sadeh (2012). From the combination of bibliotherapy (with a young child who faces his fears) plus a doll (providing the children with a doll that could protect them and they could care for), the protocol includes active parental participation, the bedtime routine, reducing parental (over) involvement, and co-sleeping and systematic exposure to the feared stimuli.

As is evident, nighttime are receiving increasing attention in recent years and in different cultures, with studies in the USA (Friedman & Ollendick, 1989; Lewis et al., 2015; Ollendick, Hagopian, & Huntzinger, 1991; Pincus, Weiner, & Friedman, 2012), Australia (Gordon et al., 2007b; Stewart & Gordon, 2014), Netherlands (Muris et al., 2001), Israel (Kahn et al., 2017; Kushnir & Sadeh, 2012; Kushnir et al., 2014). In the present study, we extend these findings and appraoches to Brazil—the first such study conucted in this country.

The present study has two primary aims: 1) to evaluate the efficacy of this brief combined intervention (CBT-based bibliotherapy plus doll) for young children co-sleeping with their parents and avoiding sleeping alone due to intense nighttime fears; and 2) to investigate the effect of intervention on sleep, anxiety levels, fear and daytime behaviors in the children. The first hypothesis was that the combined intervention would result in improvement of nighttime fears and increased number of nights that children slept alone compared to a waitlist control condition. The second hypothesis was that the intervention would also result in improvement in daytime behaviors, sleep problems, anxiety levels and fears in children.

2. Method

2.1. Design and ethics

The study had two phases. In the first phase we compared the intervention group with the wait list control group. In the second phase, the wait list group received the intervention and was reassessed.

The study employed a two-arm, randomized design. The participants were randomized between intervention and control groups (waiting list). Outcomes were assessed at post-treatment and 3-month follow-up.

This study was approved by the Research Ethics Committee of the universities where the services were performed and was registered in