Play Therapy Applied by Parents for Children with Darkness Phobia: Comparison of Two Programmes

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ABSTRACT. Two play therapies applied by parents for darkness phobia in young children are compared. Seventy-eight children between the ages of 4 and 8 were recruited from twenty-seven schools. The participants were randomly assigned to three experimental conditions: bibliotherapy and games, emotive performances, and no treatment. The treatments were applied at home by parents who had previously been trained. The training lasted for five weeks and took place in three 20-minute alternate weekly sessions. Compared with the control group, both play therapies achieved a significant improvement in darkness phobia ($d > 1.0$), which increased in a 12-month follow-up.

KEYWORDS. Darkness phobia, play therapy, emotive performances, bibliotherapy and games, childhood, parent training
INTRODUCTION

Fear of the dark is very common in childhood. Jersild and Holmes (1935) asked children between the ages of two and five to go into a dark corridor to fetch a ball. Forty-five percent would only go with an adult. Fear of the dark appears early, at the age of two or three, and is very frequent in children between the ages of four and six (Morris & Kratochwill, 1998). Ollendick (1979) suggests that a four-year-old child’s predominant fear is darkness. Cashman and McCann (1991) point out that approximately a third of children between the ages of five and eight are afraid of the dark. Though night-time fear usually diminishes after the age of nine (Méndez, 1999), for some children it lasts into adulthood (Mikulas & Coffman, 1989).

Mooney, Graziano and Katz (1985) found three night-time fear categories: Security, related to the issues of “personal life, loss and safety” (e.g., dying, someone going to hurt or strangle the child, kidnappers, a stranger in the room, burglars, etc.), and “separation from or loss of others” (e.g., thoughts that he or she won’t wake up, wondering if the parents are still at home, wondering if everyone in the family is alright, etc.). Imaginal-luminous: ghosts or spirits, monsters or dangerous animals, things from outer space, scary dreams, etc; Inherent characteristics: shadows in the room, the wind blowing, banging or knocking noises, etc. So there are many different stimuli which can cause or aggravate night-time fears. They analyzed a survey completed by 178 children aged eight to thirteen. Parents also completed the survey.

Research into epidemiology and treatment evaluation rates the prevalence of darkness phobia at around 2% (Fredickson, Annas, Fischer & Wik, 1996; Méndez & García, 1996; Méndez, González & Sánchez-Meca, 1997). Darkness phobia causes significant discomfort and has negative effects on the child’s daily life and that of his or her family. Night-time problems, such as calling parents into the room at night or getting into bed with parents, are particularly important (Graziano, Mooney, Huber & Ignasiak, 1979). Mooney (1985) reported that it took fearful children an average 54.70 minutes longer than non-fearful children (76.05 vs. 21.35 minutes) to go to bed and get to sleep. The important repercussions on the family might explain why 15% of specific phobia therapies are related to the dark (Graziano & DeGiovanni, 1979).

In a group study, Sheslow, Bondy and Nelson (1982), with 32 children aged between four and five, showed that in vivo exposure was the determining factor in the reduction of the phobia. However, in vivo exposures to phobic stimuli are aversive, and the limited self-control skills of small
children can lessen their cooperation or lead to their rejection of the therapy. Play therapy, which has been successfully used in the treatment of childhood phobias, is an alternative (Bentler, 1962; Croghan & Musante, 1975; Ney, 1968; Sosa, Capafons Gavino & Carrió, 1984; Walker & Healy, 1980).

Mikulas and his colleagues carried out four experiments in order to assess the efficacy of a darkness phobia therapy based on the story book *Uncle Lightfoot* and nine games (Mikulas & Coffman, 1989; Mikulas, Coffman, Dayton, Frayne & Maier, 1985). Eighty-two children, between the ages of four and seven, were recruited via letters to parents of children in state schools and day-care centres. Other participants were recruited via newspaper advertisements. Parents were trained to use the book and games for four or five weeks. They used written instructions for a programme called *bibliotherapy and games* (BG). In general, the results show the superiority of this therapy over a placebo group with parental attention, especially when games and tangible reinforcement were used.

Méndez and his colleagues successfully treated 67 children between the ages of three and eight with darkness phobia, loud noises phobia, animal phobias, medical phobias, etc., with the *emotive performances* (EP) treatment package (González, Méndez & Sánchez-Meca, 1996; Méndez, 1986; Méndez & García, 1996; Méndez, González & Sánchez-Meca, 1997; Méndez & Macià, 1986, 1988). The EP consists of in vivo exposures to the phobic stimuli. The treatment is developed as a game, in a gradual, brief and repeated way. According to the child’s behavior, the therapist provides help (verbal instigation, physical guidance, modeling) in order to manage the approach behavior. The child is then positively reinforced. The EP is an in vivo alternative to the *emotive imagery* created by Lazarus and Abramovitz (1962), because the progress was not generalized from imaginary to real situations.

The main difference between Mikulas and Méndez’s therapies is that Mikulas’ therapy was created to be applied by parents in the home and Méndez’ therapy was created to be applied by psychologists in the clinic. This research suggests that darkness phobia can be reduced or eliminated in a short period of time using multicomponent programmes carried out by parents. In the study by Giebenhain and O’Dell (1984), with six children between the ages of three and eleven, parents carried out a therapy which involved desensitization, training in self-instruction, material and social reinforcement, and feed-back. McMenamy and Katz (1989) trained parents in four 30 to 45-minute sessions. The treatment consisted of relaxation, self-instruction, coping modeling and social and material reinforcement. The five children who participated in this research, be-
tween the ages of four and five, showed significant improvement after three weeks.

The aim of this study is to compare in vivo exposure treatments based on play. These treatments were developed by Mikulas at West Florida University and by Méndez at Murcia University (Spain) to eliminate darkness phobia in small children. Both treatments were applied by parents, with the advantage of a satisfactory cost-benefit ratio.

**METHOD**

**Subjects**

The play therapy was offered in a letter sent by teachers to a school population of 4,660 children from preschool (2nd grade), kindergarten and elementary school (1st to 3rd grade) in 27 schools located in the southeast of Spain. A hundred and fifty-one parents answered the letter and 93 parents asked for treatment and gave their written consent. Fifteen cases were rejected in the pretest because their phobias did not include the selection criteria (see Table 1). Therefore, the final sample consisted of 78 participants, 41 boys and 37 girls, between the ages of 4 and 8 \((M = 6.49, SD = 1.46)\), who had presented darkness phobia for over two and a half years.

**Procedure**

The pretest was carried out for two weeks. In the first week, all participants and their parents were given a diagnostic interview, two written scales and two natural observation scales carried out at home. In the second week, only parents involved in the play therapy groups completed three artificial observation scales while the children assessed their own darkness fears. Parent training and child treatment lasted five weeks. Meanwhile, night-time fear was daily assessed by parents. After the treatment, the post-test was carried out in a similar way to the pretest, but during the post-test the interview and the fear inventory were not included, and parents and their children completed a treatment evaluation questionnaire. Finally, follow-ups were carried out by phone 3 and 6 months after treatment with the play therapy groups, and 12 months after treatment with all the groups.
Instruments

The *Dark Fear Interview* (DFI; Méndez, 1996) is a structured interview to obtain information about the child's phobic responses, the preceding and subsequent stimuli, especially parents and siblings' reactions, phobia history including fear persistence, other previous treatments and daily negative repercussions on the child and family (e.g., refusing to go out with schoolmates to avoid sleeping away from home). This interview also finds out about other psychological problems; it collects data about the child's health and the child's daily personal, family, school and social routine, and it also explores the child's background.

The *Children's Fear Survey Schedule-Revised* (CFSS-R; Pelechano, 1984) is a 100-item inventory designed to assess the most common childhood fears. Parents evaluate their child's phobia by means of a three-point rating scale (0 = none, 1 = some, 2 = a lot). It has been used to assess fears in children aged 2 to 9. The Imaginary or Fantasy Fear factor is a six-item factor, including night-time fear. Its internal consistency (Cronbach’s α) was .96.

The *Dark Fear Scale* (DFS; Méndez & Santacruz, 1996), a 10-item scale that uses questions according to the diagnostic criteria for DSM-IV-R

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**TABLE 1. Inclusion/Exclusion Criteria**

<table>
<thead>
<tr>
<th>Inclusion criteria</th>
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<tbody>
<tr>
<td>a) Children from 4 to 8 years old</td>
</tr>
<tr>
<td>b) Darkness phobia diagnosis according to specific phobia criteria–DSM-IV-R</td>
</tr>
<tr>
<td>c) Maximum scores for the item “Fear of the dark” in the <em>Children's Fear Survey Schedule-Revised</em></td>
</tr>
<tr>
<td>d) More than 50 points on the <em>Dark Fear Scale</em> (range: 0-100)</td>
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<tr>
<td>e) Minimum of six months persistence</td>
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<td>f) Parents' written consent</td>
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<table>
<thead>
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<th>Exclusion criteria</th>
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<tbody>
<tr>
<td>a) Other anxiety disorders, including separation anxiety</td>
</tr>
<tr>
<td>b) Mental deficiency</td>
</tr>
<tr>
<td>c) Autism</td>
</tr>
<tr>
<td>d) Being involved in a therapy</td>
</tr>
<tr>
<td>e) Psychological problems which need treatment</td>
</tr>
</tbody>
</table>
specific phobia disorder. Ratings are ascertained using an 11-point Likert scale ranging from 0 (none) to 10 (extreme). Items assess night-time fear intensity (criterion A), night-time fear reactions (criterion B), dark situations avoidance and escape or emotional alteration when the child cannot escape or is in an unexpected situation (criterion D), negative repercussions or interferences in personal, family, school and/or social areas, or clinical discomfort (criterion E). For example, item 6 assesses family alterations: “Assess if the night-time fear of their child has a negative repercussion on family life: having an argument at night-time, the frightened child is catching the fear from a sibling, parents have to stay with the child until he falls asleep, someone has to sleep with the child all night, the child wakes up in the middle of the night and parents have to calm him or her, the child sleeps in the parents’ bed and it annoys the father or mother, etc.”. Finally, this survey evaluates the seriousness of darkness phobia as a whole. The internal consistency coefficient was .87.

The Bed Time Recording (BTR; Méndez & González, 1996). Parents record the child’s night-time behavior; e.g., the child protests if parents switch off the light, the child sleeps with a light on, the child asks for an adult, the child sleeps with parents, etc. Parents also assess night-time fear with a five-point Likert scale (0 = none; 4 = a lot). Father-mother agreement was .97.

The Dark Behavior Recording-Modified (DBR-M; Mikulas & Coffman, 1989). It includes five usual behaviors, such as going along a dark corridor or going to the bathroom alone at night. These behaviors are evaluated with a five-point Likert scale (0 = the child dare not go alone or with an adult; 4 = the child dares to go alone). Father-mother agreement was .90.

Treatments

Treatments were carried out by parents at home. Parent training consisted of five sessions of approximately 45 minutes duration over a 1 month period, 1 session each week. In the first session, parents were provided with information about the treatment. Parents were trained in instructions, modelling, role playing, positive reinforcement and feedback. Finally, parents were provided with written instructions (treatment instructions, evaluation forms, etc.). Parents were recommended to carry out the treatment on three non-consecutive days a week in sessions of approximately 20 minutes’ duration. In the rest of the sessions, the Bed Time Recording was collected, problems were resolved, parents practised role playing and they were reinforced.
Treatment Package BG

The BG treatment has two main components: Uncle Lightfoot, a twelve-chapter treatment book where the hero is a coping model, and nine games to overcome night-time fear (Mikulas & Coffman, 1989; Mikulas et al., 1985). Both the book and the games consist of imaginary and in vivo exposure respectively. Both involve increasing encounters with the dark. For example, there are more night-time scenes later in the story and the pictures get darker. In the first part of each treatment session parents read the child a new chapter and in the second part they played together the game corresponding to that chapter.

The book tells the story of Michael Murphy, a small boy afraid of the dark, who goes to visit his Indian uncle to ask him for help. Uncle Lightfoot teaches Michael some Indian games to enjoy the dark, for example, how to identify animal sounds. Uncle Lightfoot also teaches him how to relax like a puppet. Michael is able to stay in the dark for longer, he is proud of his improvement and he feels as brave as an Indian. Uncle Lightfoot and Michael visit the Green Corn Festival. Michael makes friends with a young Indian who gives him a bow. At night Michael falls asleep in a dark room. Next morning he feels proud to have slept without a light on. At night Michael has a nightmare, but he deals with it by relaxing and thinking pleasant thoughts. When Michael finishes his visit, he is given an Indian suit and a necklace. Uncle Lightfoot proclaims him a warrior for having overcome his fear of the dark. Michael comes back home very happy and proud and he starts to teach his new skills to his fearful friend.

At the end of each chapter there are one or two games, except in chapter one, chapter nine and the last chapter. Games are: the handkerchief game, the blindfolded child tries to find a toy in his room; the puppet game, the child relaxes muscles (arms, hands, legs and neck); the toy in the room game, the child goes into his room to get a toy from a designated place; the animal friends game, in a dark room the child guesses the animal sound that a parent makes from another room; the animals on the wall game, parents show the child how to make hand shadows on the wall; the toy in the dark game, the child goes into his dark bedroom to get a toy from an indeterminate place; the flip the switch game, when a parent yells “Go!”, the child in the bedroom gets up from floor, turns off the light, and lies in bed waiting for his parent; the find the noisy box game; and the complete puppet game, the child relaxes muscles (arms, legs, forehead, neck and shoulders, stomach and toes). Each game corresponds to a chapter. So, the find the noisy box game begins in a totally dark home with the child lying in his
bed. Then a parent shakes a cereal box. The child tries to find the parent by going through the dark house turning on light switches. The difficulty of finding the parent is increased because the parent waits before shaking the box again. This game corresponds to chapter ten, which tells that Michael hears a dog making unusual sounds at night. The boy goes through the dark house switching on lights along the way until he finds the dog with its head stuck in a cereal box.

**Treatment Package EP**

The EP treatment package includes four main components: hierarchy, play, token economy and modeling (Méndez & García, 1996; Méndez, Olivares & Bermejo, 2001). The hierarchy combines six different light intensities with eight exposure times to the dark. The dark phobia hierarchy has 48 items. The child has to stay alone in his bedroom, lying on the bed. He gradually encounters situations that are darker through the manipulation of light intensities and the bedroom door: (a) lamp on and the door almost closed (small crack), (b) adjustable table lamp or torch on and the door almost closed (small crack), (c) corridor light on and door open, (d) corridor light on and door half-open (45°), (e) corridor light on and door almost closed (small crack), (f) corridor light off and door closed. Exposure times were gradually increased: 5 seconds, 10 seconds, 15 seconds, 30 seconds, 1 minute, 2 minutes, 4 minutes, 5 minutes.

The game is called *Olympiad of Braves*. The child chooses a character who transmits bravery and security to him. He can be a famous sportsman or sportswoman or a fiction hero. The game consists of beating the dark exposure records. A parent waits in the corridor opposite the bedroom door. Next, the parent cups his hands around his mouth and announces, imitating the sound of a stadium megaphone: “Ladies and gentlemen, the *Olympiad of Braves* is starting. Athletes, ready. (The parent checks that the child, wearing sports clothes, is lying on the bed). First bravery trial, you have to beat the five-second record for lying on the bed”. After the instruction, the mother or the father closes the bedroom door and says in a loud voice: “The bravery test starts”, while blowing a whistle and starting a stopwatch.

There were two kinds of tokens. The supertoken, a gold star-shaped sticker, which was only given when the child carried out an item at the first attempt without signs of fear. The simple token, a yellow rectangle, which was given each time the child carried out the item with help. A supertoken was equivalent to five simple tokens, one for each tip of the star. Parents tried to make the tokens collectable and related to the game’s participant.
For example, when the hero was Michael Jordan, parents gave the child a NBA stamp album and the tokens were exchanged for pictures of basketball players.

At the end of each session, the child exchanged each token in an Olympic ceremony: the child stood on a podium while the Olympic hymn sounded and the flag waved. Then the child was given a gold bravery medal.

If the child was scared while he carried out the tests, he called out the hero’s name, for example, “Pokemon!” Then the father or the mother opened the door and switched the bedroom light on. Then, the child repeated the item with help, instigating him with brave sentences, “come on, champion, you can do it!”; feedback, “it’s only five seconds to beat the record, four, three, two,...”; introducing reduction anxiety stimuli in company of the parents but eliminating them afterwards, until the child carried out the item. The most important help was in vivo modeling. A sibling or friend acted as a model in the most difficult items. When another child was not available, one parent acted as model and the other parent was the referee or the game’s director.

Follow-Up

A follow-up was carried out with the BG, EP and control groups a year after the treatments. In addition, a three- and six-month follow-up was carried out with the BG and EP groups.

Design

A mixed factorial design $3 \times 3$ was used, with the treatment as between-group factor (bibliotherapy and games, emotive performances, no treatment), and the assessment phases the within-group factor (pretest, post-test, 12-month follow-up). Participants were randomly assigned to one of three treatment conditions: BG ($n = 27$), EP ($n = 28$), and control ($n = 23$). The data analyses were carried out by means of the statistic program Systat 7.0 (Wilkinson, 1997).

RESULTS

There was no significant demographical or clinical difference among the 13 participants who failed to complete the treatment, seven from the BG group and six from the EP group, and the 65 who completed the treat-
Table 2 presents means and standard deviations in the two natural recordings for the 65 participants in the three phases. A mixed two-way analysis of variance was carried out with the Bed Time Recording scores. The within-group factor was three time measures (pretest, post-test and twelve-month follow-up). Comparisons showed significant differences among the three groups ($F_{(2,58)} = 21.351; p = .000$), with lower scores being obtained for the treatment groups than for the control group. Paired post hoc comparisons showed significant differences among all groups. The greatest improvements were obtained in the EP group, followed by the BG group, and lastly the control group. Besides, there was a significant change from the post-test to the twelve-month follow-up ($F_{(2,116)} = 8.921; p = .000$), except in the control group where the difference was only marginally significant ($p = .07$). On the other hand, a significant interaction in time in all groups was observed ($F_{(4,116)} = 13.352; p = .000$). Figure 1 shows that fearful behavior decreased from the pretest to the post-test and continued decreasing gradually in the EP group. In the BG group the fearful behavior decreased gradually from the pretest to the six month follow-up, with a slight increase twelve months after treatment.

TABLE 2. Means (and Standard Deviations) in Darkness Phobia for the Three Groups at the Three Moments of Measurement

<table>
<thead>
<tr>
<th></th>
<th>Pretest</th>
<th>Post-test</th>
<th>12-month follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BTR (rank: 0-4; the higher the score, more fear)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EP</td>
<td>3.23 (0.39)</td>
<td>0.72 (1.16)</td>
<td>0.29 (0.90)</td>
</tr>
<tr>
<td>BG</td>
<td>3.14 (0.86)</td>
<td>1.97 (1.67)</td>
<td>0.95 (1.50)</td>
</tr>
<tr>
<td>Control</td>
<td>3.40 (0.43)</td>
<td>3.35 (0.52)</td>
<td>2.82 (1.27)</td>
</tr>
<tr>
<td><strong>DBR-M (rank: 0-20; the higher the score, less fear)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EP</td>
<td>6.95 (2.84)</td>
<td>16.82 (3.79)</td>
<td>20.00 (0.00)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[16.41]</td>
<td>[19.79]</td>
</tr>
<tr>
<td>BG</td>
<td>8.50 (3.80)</td>
<td>15.80 (4.86)</td>
<td>18.40 (3.70)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[14.16]</td>
<td>[17.41]</td>
</tr>
<tr>
<td>Control</td>
<td>4.17 (3.35)</td>
<td>4.65 (6.46)</td>
<td>7.48 (5.90)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[6.46]</td>
<td>[8.63]</td>
</tr>
</tbody>
</table>
As groups were not matched before treatment in the *Dark Behavior Recording except Modified* scores an ANCOVA were carried out with the pretest as covariable. Means adjusted by the covariable are presented in brackets (see Table 2). There were significant differences among the three groups ($F(2,58) = 69.499; p = .000$). Post hoc comparisons show the same pattern of results, that is, the biggest change was in EP, then BG and finally, the control group. A significant change from the pretest to the twelve month follow-up ($F(1,58) = 17.466; p = .000$) was found. However, there was no significant interaction in the time means for all groups. It is important to highlight that significant differences were found from the post-test to the last follow-up in the control group (see Figure 2).

Finally, in a later analysis after treatment, the effect sizes ($d$) were obtained by comparing the three groups (Table 3). In particular, in order to compare the performance of each group with each other, a standardised mean difference was calculated dividing the difference between the two group means by a pooled within-group standard deviation. According to Cohen (1988), a negative value means a deterioration due to treatment; a .20 value means a low effect for the treatment; a .50 value means a medium effect; and a .80 value a high effect.
DISCUSSION

The two play therapies, BG and EP, produce an improvement in darkness phobia, which increased in the follow-up a year later. The effectiveness of both treatments is explained by the fact that they share the therapeutic procedure of choice: gradual in vivo exposure to the dark. The standard application of systematic desensitization has three disadvantages. First, the child tends to find progressive relaxation training boring, even when attractive methods, such as the robot-ragdoll, are used (Kendall & Braswell, 1986), and also finds it difficult to learn. Second, forming mental images and controlling them is difficult when cognitive development is limited (e.g., small children, mentally retarded children) or affected (e.g., children with brain damage or autistic children). It can even be difficult for children with a normal cognitive development since they sometimes imagine more terrifying situations than the ones described verbally by the therapist. Third, the generalization of the therapeutic improvement from mental to physical reality is not always achieved. These are the reasons why the neobehavioral treatment recommended for child and adolescent phobias is in vivo systematic desensitization.
The operant techniques of behavior therapy are derived from the basic principles of operant conditioning. Stimulus control and contingency management are the generic therapeutic methods used to modify phobic behavior by means of controlling the preceding and subsequent stimuli, respectively. The control stimulus consists of introducing approach behavior discriminatory stimuli, for example, the instruction “stay in the dark for as long as you can”, and escape/avoidance behavior delta stimuli, for example, a torch as a safety measure. Contingency management is carried out by means of the positive reinforcement of approach behavior and the elimination of escape/avoidance behavior. The operant treatment used in child phobias is reinforced practice.

From the perspective of social learning, modeling is the therapeutic procedure for child phobias. Its effectiveness is increased if followed by the child’s participation since learning is not just limited to observation but is accompanied by the child’s imitation of what is demonstrated in the modeling. Thus, participating modeling is the most suitable treatment for social learning.

These three psychological treatments, in vivo systematic desensitization, reinforced practice and participating modeling are “well established” (Ollendick and King, 1998). The treatments have three elements in common: (a) exposure to the phobic stimuli, (b) gradual exposure and (c) in vivo exposure. Results show that both treatments are effective. However, efficacy is greater with the EP therapy. Analysis of the components of the two play therapies, BG and EP, reveal important similarities (see Table 4). However, the higher degree of structuring in the EP therapy and the fact that the puppet game in the BG therapy was the least valued game, suggest that token economy and hierarchy are two important components in the therapy whereas relaxation does not seem to be an especially suitable procedure for specific phobias in young children.

Both treatments are brief. This is an advantage because “in an anxiety disorder in children, before considering a treatment to be effective, it is very important to consider its duration” (Toro, 1986, p.181). This favorable cost/effectiveness ratio is an advantage if we compare these treat-

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**TABLE 3. Effect Sizes at the Post-Test (Standardised Mean Differences)**

<table>
<thead>
<tr>
<th>Recording</th>
<th>EP-BG</th>
<th>EP-Control</th>
<th>BG-Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bed Time Recording</td>
<td>0.860</td>
<td>2.921</td>
<td>1.131</td>
</tr>
<tr>
<td>Dark Behavior Recording–Modified</td>
<td>0.231</td>
<td>3.152</td>
<td>2.531</td>
</tr>
</tbody>
</table>

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ments with the procedure of systematic desensitization, which requires several sessions in order to learn imagination and relaxation. Both programmes increase the child’s and his family’s satisfaction with the therapy because these treatments involve the use of games.

Future research should carry out replication studies with clinical samples and longer follow-ups. The treatment should also be broken down in order to find out the contribution of each element in these multi-component programs to therapeutic success. Finally, the possibility of carrying out parent training with minimum contact, such as by telephone, by post or by e-mail, should be considered.

REFERENCES


TABLE 4. Comparison of Two Therapies

<table>
<thead>
<tr>
<th></th>
<th>EP</th>
<th>BG</th>
</tr>
</thead>
<tbody>
<tr>
<td>In vivo exposure</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Phobic stimuli graduation</td>
<td>Yes (hierarchy)</td>
<td>Yes (according to parents’ criteria)</td>
</tr>
<tr>
<td>Play</td>
<td>Yes (Olympiad of Braves)</td>
<td>Yes (9 games for dark)</td>
</tr>
<tr>
<td>Relaxation</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Verbal instigation</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Extinction</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Social reinforcement</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Material reinforcement</td>
<td>Yes (token economy)</td>
<td>Yes (toys)</td>
</tr>
<tr>
<td>Modeling</td>
<td>Yes (in vivo)</td>
<td>Yes (symbolic)</td>
</tr>
<tr>
<td>Cognitive modification</td>
<td>Yes (self-instructions of bravery)</td>
<td>Yes (happy thoughts)</td>
</tr>
<tr>
<td>Parent training</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Natural environment (home)</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>


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