

EMOTIVE IMAGERY TREATMENT FOR CHILDHOOD PHOBIAS: A CREDIBLE AND EMPIRICALLY VALIDATED INTERVENTION?

Neville J. King, Geoffrey N. Molloy and David Heyne

Monash University, Australia

Gregory C. Murphy

La Trobe University, Australia

Thomas H. Ollendick

Virginia Polytechnic Institute and State University, U.S.A.

Abstract. Childhood phobias are complexly determined but responsive to behavioral interventions. This review focuses on emotive imagery, a variant of systematic desensitization developed specifically for use in treatment of children's excessive fears. Although emotive imagery appears to be a useful treatment procedure, further research is needed before it could be considered as having "well-established" empirical status. Several other important methodological and theoretical issues are emphasized.

Keywords: Children, phobias, desensitization, emotive imagery, empirical validation.

Introduction

The excessive fears or phobias of children and adolescents are problematic because of their persistence, maladaptiveness and magnitude (reviews by King, Hamilton, & Ollendick, 1988; Ollendick, Hagopian, & King, 1997; Silverman & Rabian, 1994). Common examples of childhood phobias include excessive fear reactions to school, animals, darkness and medical/dental procedures. Phobias can be conceptualized in terms of three components: cognitive, physiological, and overt behavioral. King et al. (1988) have documented the variety of cognitive responses (e.g., thoughts of being scared, self-deprecatory thoughts), physiological responses (e.g., increased heart rate, changes in

Reprint requests to Associate Professor Neville King, Faculty of Education, Monash University, Clayton, Victoria 3168, Australia.

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respiration) and overt-behavioral responses (e.g., rigid posture, thumbsucking, avoidance) that may occur in the fearful or phobic child. Severe phobic reactions frequently manifest themselves in all three response systems (Silverman & Rabian, 1994).

In recognition of their seriousness and persistence, phobias are included in the two most widely accepted diagnostic classification systems (American Psychiatric Association, 1994; World Health Organization, 1992). For example, the fourth edition of the *Diagnostic and statistical manual of mental disorders* (DSM-IV) specifies the following criteria for “specific” phobia: (a) marked and persistent fear that is excessive or unreasonable, cued by the presence or anticipation of a specific object or situation; (b) evidence that exposure to the phobic stimulus almost invariably provokes an immediate anxiety response or panic attack; (c) recognition by the person that the fear is excessive or unreasonable; (d) the phobic situation(s) is avoided or else endured with intense anxiety; (e) the phobia causes significant interference to functioning or there is marked distress about having the phobia; (f) in individuals under 18 years, the duration is at least six months, and (g) the anxiety or phobic avoidance is not better accounted for by another disorder such as obsessive-compulsive disorder and separation anxiety disorder. In relation to developmental factors, the DSM-IV acknowledges that children may not always recognize their fears as excessive or unreasonable. Thus, phobias in young children may be expressed in “childhood” ways such as crying, tantrums, freezing or clinging. A similar definition of specific phobia (referred to as “isolated” phobia) is given in the ICD-10.

Children’s phobias have a complex etiology (see reviews King et al., 1988; Ollendick, 1979). From the viewpoint of conditioning theory, Watson and Rayner’s (1920) early laboratory demonstration with “Little Albert” has provided dramatic testimony to the power of traumatic experience in phobia acquisition. However, we should note that replication of this work has not always been successful. Further, conditioning theory has come under criticism on several additional grounds as a comprehensive account of children’s phobias (see Davey, 1992; King et al., 1988). Quite simply, traumatic experience is not always reported as a factor in the etiology of the child’s phobic reaction. Thus, Rachman (1977) proposed that there are three distinct, though frequently overlapping, pathways to the acquisition of fears and phobias: direct conditioning (e.g. child being attacked by a dog) modeling (e.g., children observing fearful nighttime behavior of older siblings), and instruction/information (e.g., child hearing stories and jokes about dentists) (cf., Molloy, 1984).

Despite their complex nature and etiology, childhood phobias have been successfully treated using various behavioral interventions (King & Ollendick, 1989, 1997). This review focuses on emotive imagery, a popular behavioral fear reduction procedure that is often used in the management of childhood phobias (Blagg, 1987; King, Ollendick, & Tonge, 1995; Cornall, Spense, & Schotte, 1996). We argue that emotive imagery is a variant of systematic desensitization and is based on the principle of reciprocal inhibition. Mindful of the recent guidelines for determining the empirical status of psychological interventions published by the American Psychological Association’s Division 12 (Clinical Psychology) Task Force on Promotion and Dissemination of Psychological Procedures (Chambless et al., 1996; Task Force, 1993), our major objective is to evaluate the clinical and research support for the efficacy of emotive imagery. While there have been several reviews of desensitization procedures in the treatment of childhood

phobias (e.g., Hatzenbeuhler & Schroder, 1978; King, Ollendick, & Gullone, 1990), this is the first review of research on emotive imagery.

Emotive imagery as a variant of systematic desensitization

Developed by Wolpe (1958), systematic desensitization is probably the most frequently used phobia reduction procedure with adults. In his research with laboratory cats, Wolpe found that classically conditioned anxiety could be inhibited by eating behavior when adopting a graduated approach to the fear stimulus. Following the physiologist Sherrington (1906), Wolpe evoked the principle of reciprocal inhibition. According to Wolpe:

If a response antagonistic to anxiety can be made to occur in the presence of anxiety-evoking stimuli so that it is accompanied by a complete or partial suppression of the anxiety responses, the bond between these stimuli and the anxiety responses will be weakened (p. 71).

Working from the principle of reciprocal inhibition, anxiety was said to be overcome by superimposing a response that was incompatible with anxiety. In clinical practice, the client is trained in a response antagonistic to anxiety (typically progressive relaxation), and then required to imagine a series of anxiety-provoking scenes while deeply relaxed. Real-life exposures to the fear-evoking stimuli are frequently involved for optimal desensitization. Over the years much research has attested to the efficacy of systematic desensitization in the treatment of phobias (see review by Masters, Burish, Hollon, & Rimm, 1987). In their review of empirically validated therapies, the previously mentioned task force identified systematic desensitization as an example of a well established or empirically supported psychological intervention for specific phobia (see Chambless et al., 1996).

Although systematic desensitization has been widely used with adults, therapists have encountered difficulties in applying this procedure to children (King et al., 1988). For example, training in relaxation can be demanding and tedious for children. Many variants of systematic desensitization have been applied in clinical practice to children. In her now classic case study, Jones (1924) successfully deconditioned the fear response of a young boy, Peter. The clever use of real-life exposures in conjunction with feeding overcame Peter's fear of a rabbit which had generalized to other animals and objects. Tasto (1969) tried imaginal systematic desensitization, with muscle relaxation as the anxiety inhibitor, to treat a 4-year-old child's fear of sudden loud noises. The child moved through the anxiety hierarchy without difficulties. However, when subsequently tested *in vivo* his fear had not diminished. Thereafter, real-life desensitization was embarked upon with good results. Jackson and King (1982) used a hierarchical series of real-life exposures to help an autistic child overcome his phobia of toilet flushing. Using mirth and laughter to compete with anxiety and a simple reinforcer for appropriate use of the toilet, the program was effective and the gains were maintained at three-month and six-month follow-ups. In these case illustrations the therapists' preference for real-life exposures and anxiety inhibitors other than relaxation is evident.

Pioneered by Lazarus and Abramovitz (1962), another variant of systematic desensitization is emotive imagery. In their now classic paper, Lazarus and Abramovitz point

out that emotive imagery refers to “those classes of imagery which are assumed to arouse feelings of self-assertion, pride, affection, mirth, and similar anxiety-inhibiting responses” (1962, p. 191). The basic idea is to incorporate these images into an engaging story to evoke a strong positive affect in the child. As in systematic desensitization, anxiety-provoking items are introduced in a gradual manner by the therapist. Consistent with Wolpe’s (1958) principle of reciprocal inhibition, the positive emotional feelings are expected to counteract any anxiety elicited by the feared stimuli. Sometimes known as “story form” desensitization, emotive imagery has been used in the treatment of many different types of childhood phobias including school phobia, animal phobia and darkness phobia (Blagg, 1987; Chudy, Jones, & Dickson, 1983; Jackson & King, 1981; King, Cranstoun, & Josephs, 1989).

Clinical and research support

Many case reports attest to the usefulness of emotive imagery in the treatment of childhood phobias. For example, Lazarus and Abramovitz (1962) applied emotive imagery in the treatment of a 14-year-old boy who experienced school attendance difficulties owing to an intense fear of dogs. After extensive questioning the therapist ascertained that the boy had fantasies of racing motor cars. In fact, he had a burning ambition to own a certain Alfa Romeo sports car and race it in the Indianapolis 500. Emotive imagery was induced as follows:

Close your eyes. I want you to imagine, clearly and vividly, that your wish has come true. The Alfa Romeo is now in your possession. It is your car. It is standing in the street outside your house. You are looking at it now. Notice the beautiful sleek lines. You decide to go for a drive with some friends of yours. You sit down at the wheel, and you feel a thrill of pride as you realize that you own this magnificent machine. You start up and listen to the wonderful roar of the exhaust. You let the clutch in and the car streaks off. You are out in a clear open road now; the car is performing like a pedigree; the speedometer is climbing into the nineties; you have a wonderful feeling of being in perfect control; you look at trees whizzing by and you see a little dog standing next to one of them. . . . An item fairly high up on the hierarchy was: “You stop at a cafe in a little town, and dozens of people crowd around to look enviously at this magnificent car and its lucky owner, you swell with pride; and at this moment a large boxer comes up and sniffs at your heels” . . . (Lazarus & Abramovitz, 1962, p. 192).

After three sessions using this method the child reported a marked improvement in his reaction to dogs. He was given a few field assignments involving real-life exposure to dogs during the next two sessions, after which therapy was terminated. Twelve months later, reports both from the boy and his relatives indicated that there was no longer any trace of his former phobia. In the same report, Lazarus and Abramovitz (1962) applied emotive imagery to eight other phobic children aged between 7 and 14 years. In all, seven of the nine children were treated successfully. The method failed with one child who refused to cooperate and who later revealed widespread areas of disturbance, which required broader therapeutic handling. The other treatment failure was a phobic child with a history of encephalitis. He was unable to concentrate on the imagery and could not enter into the spirit of the “game”.

Jackson and King (1981) employed emotive imagery in the treatment of a 5-year-old boy with a phobia of darkness. He was also afraid of noises and shadows associated with the night, which caused many sleepless nights for the child and family. According to the boy's parents, the phobia seemed to have been caused by a frightening incident involving a prowler breaking into the house. Having determined that the child was fond of the comic character Batman, the therapists created a fear hierarchy and then asked the child to imagine that "he and Batman had joined forces and that he was appointed a special agent". Next he was asked to close his eyes and to imagine the fear-producing stimuli in a graduated fashion, while accompanied by Batman. The following transcript illustrates the build-up of the imagery and the introduction of anxiety-provoking items. The child's active involvement in the treatment is also evident.

Therapist: Close your eyes – now I want you to imagine that you are sitting in the lounge room watching TV with your family. You're dressed for bed and the last program before bedtime has finished. Your mother tells you it's time for bed but just then Batman, who you really wish you knew, appears out of nowhere and sits down next to you. Think about it as best you can. Can you see Batman in your head?

Child: Yes.

Therapist: Can you tell me what Batman's wearing? What color are his clothes?

Child: He's got black and red clothes and big shoes and a gun.

Therapist: Oh, you can see him with a gun?

Child: Yeah he needs it for the Joker.

Therapist: That's terrific M. Now I want you to imagine that Batman tells you he needs you on his mission to catch robbers and other bad people and he's appointed you as his special agent. However, he needs you to get your sleep in your bedroom and he will call on you when he needs you. You're lucky to have been chosen to help him.

Child: Yes.

Therapist: Now your mother puts you in your bed and leaves both the lights on and leaves the three blinds up. Batman is also there looking as strong as he always does. Think about it as clearly as you can. Can you see it?

Child: Yes. I can see mummy and Batman in my room and all the lights are on.
(Jackson & King, 1982, p. 327)

After only four sessions of emotive imagery, the child showed marked clinical improvements. In this case, muscular relaxation had been attempted and was unsuccessful, leading the therapists to use the child's favorite character as the fear-inhibiting agent. However, exposure was an integral part of the emotive imagery treatment with the child being encouraged to sleep through the night in his own room. A flashlight was also provided in order to develop appropriate coping skills. An 18 month follow-up showed that therapy gains had been maintained.

King et al. (1989) evaluated the efficacy of emotive imagery using a multiple baseline across subjects design. Three clinic-referred children (6-, 8- and 11-year-old) with severe night-time fears participated in the study. These children also slept with their parents

at night as a means of coping with their fear. For one of the children, excessive fear of darkness and worries about night-time creatures were apparently triggered by seeing the movie "Aliens". Emotive imagery was directed towards fear of darkness and any associated fears expressed by the children. Children received between 6 and 13 sessions (30 minutes per session) of emotive imagery in their homes. In addition to the emotive imagery sessions, children were encouraged to confront fear eliciting stimuli in real-life (exposure). All three children showed a dramatic improvement on a "darkness toleration test" over the course of treatment (cf., Leitenberg & Callahan, 1973). Given that such tests are of questionable ecological validity (see King, Ollendick, & Tonge, 1997), results on other measures are more meaningful in treatment evaluations of emotive imagery. Parents were required to record various night-time disturbances such as sleeping with parents and crying on a daily monitoring chart. Following emotive imagery treatment, two of the children showed marked behavioral improvement and were able to sleep by themselves at night. Unfortunately, the child who slept most frequently with his mother did not show any improvement in terms of night-time behavior. The intervention also produced a reduction in general fearfulness as assessed by the Fear Survey Schedule for Children-Revised (Ollendick, 1983). Clearly, emotive imagery produced good clinical results for two of the three children in this study.

Recently, a randomized clinical trial on the efficacy of emotive imagery was reported by Cornwall et al. (1996). Participants included 24 children, aged 7 to 10 years, experiencing severe darkness phobia that met the diagnostic criteria for simple phobia (American Psychiatric Association, 1987). Children were randomly assigned to either emotive imagery treatment or a waiting-list control condition. Emotive imagery was conducted over six sessions, one per week. Multi-method assessments were conducted before and after treatment, and at a three-month follow-up. The assessments included two self-report instruments (Fear Survey Schedule for Children-Revised, Ollendick, 1983; Revised-Children's Manifest Anxiety Scale, Reynolds & Richmond, 1978), a darkness toleration test and a parent-completed questionnaire on darkness fear behavior. Results indicated that the emotive imagery group showed significantly greater reductions in darkness fears and anxiety according to child and parent reports in comparison to the waiting list group. Similarly, the emotive imagery group displayed significantly greater improvements on the darkness toleration test. The improvements of the emotive imagery group were maintained at the three-month follow-up. Overall, the results of this investigation bolster the empirical support for emotive imagery although we should note that diagnostic status was not evaluated at the post-treatment and follow-up assessments.

Acceptability of intervention

As numerous authorities have observed (Kazdin, 1977; Wolf, 1978), it is not sufficient for behavioral intervention strategies to be effective in the management of childhood emotional and behavioral problems. As well as being effective, intervention strategies must also be acceptable to our clients and society. As noted by Wolf in his classic paper on the social validation of behavioral intervention, clinicians must respect the rights of individuals who are treated and determine the acceptability of proposed interventions. At the pragmatic level, it will be recognized that the attitude of children and their

parents towards an intervention program can also have an important bearing on treatment adherence and cooperation. As noted by Wolf (1978) "if participants don't like the treatment then they may avoid it, or run away, or complain loudly, and thus, society will be less likely to use our technology, no matter how potentially effective and efficient it might be" (p. 206).

To date, little systematic research has been undertaken on the acceptability of emotive imagery as a treatment for phobic children. However, King and Gullone (1990) have reported some encouraging findings on this issue. High school students, parents, and professionals (mostly teachers) were asked to rate the acceptability of various treatments that were described in relation to a phobic child. The treatments included: (1) relaxation training, (2) systematic desensitization, (3) emotive imagery, (4) flooding, (5) modeling, (6) contingency management and (7) positive self-statements. Although not all of the intervention procedures were acceptable to respondents, emotive imagery received high acceptability ratings by students, parents and professionals. The issue of social validation was also examined in King et al.'s (1989) research on the emotive imagery treatment of children's night-time fears. On a questionnaire administered at post-treatment, parents indicated that they were highly satisfied with emotive-imagery as an intervention. Emotive imagery was perceived to be an ethical and effective technique and something they would recommend to another parent. The findings of these studies confirm our impressions regarding the acceptability of emotive imagery as a phobia reduction procedure for children.

Methodological and theoretical issues

Although little controlled research has been conducted on emotive imagery, the findings are encouraging for the efficacy and credibility of this variant of desensitization for childhood phobias. However, a number of methodological and theoretical issues should be emphasized. Firstly, controlled evaluations of emotive imagery are limited to the treatment of darkness phobia (Cornwall et al., 1996; King et al., 1989). Clearly empirical evaluations need to be undertaken with children experiencing other types of phobias such as animal phobia, excessive fear of heights and medical-related phobias. As in the Cornwall et al. (1996) study, diagnostic evaluations of children should also be undertaken to determine if the targeted fear reaction meets diagnostic criteria for an actual phobic disorder. Of the many structured diagnostic interview schedules that are now available, we recommend the Anxiety Disorders Interview Schedule for Children (ADIS-C, Silverman & Nelles, 1988). This instrument has acceptable reliability and validity for the diagnosis of "specific" phobia (Rapee, Barrett, Dadds, & Evans, 1994; Silverman & Eisen, 1992), and is now available in a DSM-IV version.

Secondly, research methodologies used so far preclude identification of the mechanism(s) responsible for phobia reduction or the comparative efficacy of emotive imagery. In the absence of attention-placebo controls, we cannot rule out the possibility of treatment gains being due to nonspecific therapy effects rather than emotive imagery per se. Indeed, Friedman and Ollendick (1989) found that for some children with night-time fears contact with a therapist was sufficient to produce marked improvements. Similarly, Wolpe's (1958) principle of reciprocal inhibition has not been evaluated in studies on emotive imagery. Of course, the question of mechanism in desensitization is

complex and controversial. Reliance on the physiological process of inhibition has been criticized, and some findings in child and adult studies are not consistent with reciprocal inhibition theory (see reviews by Hatzenbeuhler & Schroder, 1978; Masters et al., 1987; Rachman, 1990).

Although many alternative explanations have been offered as to why desensitization and its variants might be helpful with phobic children, our review indicates that *in vivo* exposure is nearly always an integral part of emotive imagery treatment (for further discussion, see Cornwall et al., 1996). Given that *in vivo*, rather than imaginal, exposure appears to be the key ingredient in the treatment of adult phobias (Masters et al., 1987), it is plausible that *in vivo* exposure might also be the key ingredient in child therapy. An important question for the next trials might be to ask whether the emotive imagery component is strictly necessary, or whether *in vivo* exposure alone can produce the same results. Of course, there may also be developmental considerations in deciding whether to use emotive imagery rather than *in vivo* exposure alone (Ollendick & Francis, 1988; Rosenstiel & Scott, 1977).

At this stage, we also cannot rule out the possibility of emotive imagery being primarily a cognitive intervention affecting beliefs about feared objects and situations. As we saw in the case illustrations (e.g., Jackson & King, 1981), there is a heavy emphasis on empowering and engendering a sense of mastery or being in control. In many respects, emotive imagery would seem to be a very explicit attempt at cognitive restructuring and changing perceptions of threat or danger. We recommend that future trials include measures of danger beliefs and self-efficacy in order to shed light on this important clinical and theoretical issue (cf., Kendall et al., 1992).

Lastly, the long-term efficacy of emotive imagery must be examined in controlled treatment evaluations. In their randomized clinical trial, Cornwall et al.'s (1996) three-month follow-up yielded encouraging findings for the stability of treatment effects. However, much longer follow-up assessments are required (cf., Graziano & Mooney, 1982). Future follow-up research should also attempt to ascertain mechanisms responsible for long-term success. Presumably, self-directed *in vivo* exposure and caregiver encouraged exposure are important factors, although there may also be other interactive influences such as self-efficacy and family support. Cases wherein emotive imagery failed to produce long-term treatment effects are particularly important to investigate in order to identify precipitants to setbacks and relapses (cf., Kendall et al., 1992).

Our discussion has identified major methodological limitations in the research on emotive imagery. In the language of the Task Force on Promotion and Dissemination of Psychological Procedures (Chambless et al., 1966; Task Force, 1993), empirical support for emotive imagery falls short of the criteria for well-established treatments. Essentially, the criteria involve at least two good between group design experiments demonstrating superior efficacy to a psychological placebo condition or to another treatment. Experiments must also be conducted with treatment manuals, clearly defined client samples and effects must be demonstrated by at least two different investigators. Clearly emotive imagery requires far more extensive and rigorous empirical evaluation before we can have full confidence in its empirical status as a truly clinically efficacious intervention for childhood phobias. This research direction, however, must be weighed up against the call for the development and evaluation of "high strength", integrative

behavioral treatment programs for childhood phobias (see Ollendick & King, in press). In the long run, integrative or broad-spectrum behavioral treatment is likely to prove more clinically efficacious than emotive imagery or any other single treatment strategy.

Summary

Behavioral treatment procedures such as systematic desensitization are used in the management of both adult and childhood phobias. In its traditional form, however, systematic desensitization is not always developmentally suitable for use with children. In particular, training in relaxation can be fairly demanding and tedious for children. Pioneered by Lazarus and Abramovitz (1962), emotive imagery has emerged as an age-appropriate variant of systematic desensitization. Although only a small amount of research has examined the efficacy of emotive imagery treatment for childhood phobias, the findings are positive and encouraging. Emotive imagery also appears to be a highly acceptable intervention to children and their parents. However, in view of the scant empirical support for this variant of desensitization we conclude that emotive imagery requires far more rigorous evaluation before we could properly describe it as having well-established empirical status. Other methodological and theoretical issues were noted. For example, most of the evaluation studies have been limited to children with extreme night-time fears. Also the question of why emotive imagery treatment is helpful has not yet been adequately investigated. As these issues are addressed we can have greater confidence in not just the clinical utility of emotive imagery in the management of childhood phobias but of its status as an empirically validated psychological intervention.

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