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Children's Relaxation Training Program Using Elements of Yoga and Imagery: Practical Application and First Evaluation of a Curriculum: A Train the Trainer Study

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Abstract:

In this study we report the effects of a training curriculum designed for the instructors for the Training of relaxation with Elements of Yoga for Children (TREY-C). This program was developed by Stück [Stück, 1998] and combined the Indian Yoga with other stress management techniques for children in an integrated and structured training program for teaching children relaxation. Since 2000 this program was disseminated to different occupational groups e.g. from school and clinical settings. For those and other settings this stress management approach seems to be work and applicable. 89.3% of the participants evaluated the train the trainer teaching curriculum as very good or mainly well structured. 66.7% felt very and/or mostly secure to apply the learned techniques in their own practice. Results post-training interviews after 6 months show that 72% of the students who have completed the training of instructors use the program or parts of it in different areas (school, child and adolescent psychiatry, centres for rehabilitation, advice centres for upbringing, further education). The observation of the trained instructors and the observed verbal reaction of the trained children clearly show the effects of the program. We haven't found only the stress reducing main effects e.g. relaxation, calming down, emotional balance but also side effects e.g. increase of attention, motivation, fun, and transfer effects in every day life activities and learning environments.

Introduction

Research has shown an increase in stress related behaviour and experiences of stress in children ([Engel & Hurrelmann, 1989]; [Reißig & Petermann, 1996]). In contrast only a few stress management programs have been developed for elementary school children ([Lohaus, Klein-Heßling & Shebar 1997]). The published stress management programs for children in Germany ([Lohaus & Klein-Heßling, 2000]) are mainly cognitive behaviour therapy oriented. For a long time there was no empirically proved stress management approach for children basing primarily on relaxation techniques. By Stück ([Stück, 1998]; [Stück, 2000]) such a stress management approach was developed, mainly based on elements of Yoga including additionally aspects of stress management training e.g. drawing, breathing and massage techniques, imagery techniques for children (fantasy journeys), meditation, and relaxation by music. Aim and goal of this training is to teach children and adolescents in self regulated strategies to reduce stress and to optimise their reactions related to high psychological demands and pressure in everyday life. Other aims of this training program are: to learn quiet and calmness, an increase of well-being, to unwind everyday sorrows, to experience the relation between body, breath, and cognition, and to experience the training group as a supporting and safe place. During the training, the participants will be confronted with Yoga and breathing exercises. They learn to use these exercises before, during, and after stress situations and are instructed to make homework assignments for self-controlled use of the relaxation techniques. Stress management and coping processes take place on two levels:

- a) A body or physiological level: This area of stress is focused by the help of different relaxation techniques (Yoga exercises, body and breathing exercises, imagery, meditation, and relaxing massages). The psychological results of such an internal regulation are normally not only physiologically, but very often also behavioural, and can be observed in the decrease of aggressive behaviour, fear and attentional disorders ([Lohaus, Klein-Heßling, Vögele & Kuhn-Henninghausen]).
- b) A cognitive and behavioural level: With regard to the cognitive and behavioural level, participants acquire stress related knowledge and coping resources, e.g. positive imagery, the thoughts stopping technique and self instruction techniques which helps to better control problematic thoughts in stressful situations.

First results of the evaluation of this stress management approach ([Stück, 1998]; [Hartwig, 2000]) show clear effects: deeper relaxation states,

stabilisation of stress-related personality traits, transfer effects. This study refers to the training of the trainers. They should be close connected to the living and working fields of the school children. This study tries to find out how effective instructors for this program can be trained by the help of a structured training curriculum, and how effective the instructors will be to include this program in their work with children under stress and what results they can report after a period of six months.

Theoretical background to the Training program and the Train the Trainer's Procedure

Main Features of the Stress Management Program for Children:

The program consists of 15 meetings. One exercise lasts for 60 minutes and is subdivided into three parts:

a) First relaxation:

The aim of this part is to achieve a stronger inner orientation and to prepare for the following Yoga exercises. This first relaxation is accomplished by the help of a technique, called 'journey through the body', which consists of different concentration tasks on single body parts. Other used first relaxation techniques are four breathing techniques from Yoga (*ujjayi*, *nadhi shodana*, alternating breathing).

b) Yoga exercises:

During the relaxation training 23 different Yoga exercises are introduced, developed, and consolidated. The long-term aim is – besides the immediate relaxation during the meeting – the mastery of *asana* for self-relaxation. For independent training the program focus on an individual complex Yoga exercises, which can be built as a row order from single Yoga exercises. Several complex Yoga exercises will be trained. Another variant of this relaxation training is that the participants can develop their own complex Yoga exercise by the help of *asana* and the basic principles of Yoga. Later, they are asked to introduce the group to their own exercise and instruct everybody else, taking on the role of a Yoga teacher. As a result, identification with these Yoga exercises, creativity, and the ability of self-reflected use of these exercises are to be strengthened.

c) Final part:

The final part of a session has a rather a game character. It encourages social contact and integration into the group and reinforces the training efforts. Several techniques will be used for that purpose: e.g. massage techniques (partner massage, ball massage), meditation (candle

meditation), sensory exercises ("trust game", "jumping lotus flower") as well as six different imagery techniques. These special designed guided imagery techniques are used to teach the self-instructions abilities of the children. Formulas like e.g. "Stop - calm and cool is wonderful" are embedded in the imagery process. The use of imaginary and meditation exercises was chosen to create a transition from the sensual-motor action regulation of the Yoga exercises to a cognitive-behavioural and imaginal self-regulation process. This connection leads to emotional regulated inner experience of calmness. The active intrapsychic monitoring of the 'inner view' seems to be very important and helps participants to learn to pay attention to their own emotions and not only follow to external stimuli (e.g. computer games, television).

The Train the Trainer's Procedure

The education of the course-instructors started in the year 2000 and took place over a time span of two weekends (32 hours). The curriculum consists of self-experienced exercises according all training elements and theoretical and technical information about aim and scope of the stress management techniques, e.g. self-awareness of all the exercises of the training (Yoga and breathing exercises, the imagery and massage techniques, sensory exercises).

Instruction in theoretical principles (Yoga theory, stress psychology, and group dynamics).

Training of special instructions for the Yoga exercises and the elements of the final part of the exercises (e.g. imagery and sensory exercises). The curriculum was designed for all those people who are working with children, adolescents and who can use this program full, or at least parts of it, in their professional work (e.g. psychologists, pedagogues, teachers, counselling educators workers, speech therapists, psychotherapists).

Overview about the Study

Several studies have shown that the stress management developed by Stück (1998, 2000) is effective and well designed for use for children and adolescents. No studies about the train the trainer procedure were done in the past, neither for this program nor for other children's stress management programs. Here we report a study in which the effects of a training curriculum designed for the instructors for this stress management program will be reported. Additionally the first experiences and effects made by the trained instructors will be reported. The study was confirmed to find answers to the following questions: How the participants accept the

educational curriculum for the instructors for TREY-C training? How the TREY-C can be integrated into the professional praxis of the instructors after participation at the training course?

Subjects

The training of instructors was conducted with 60 participants (51 females and 9 males) between March 2000 and August 2001. Five groups were trained and each group's training session was scheduled over two weekends. The participants were individuals with the following career backgrounds: 30 students of psychology (50%), 16 teachers (27%), 5 clinical psychologists (8%), 2 physiotherapists (3%), 2 training parents (3%), 2 sport trainers (3%), 1 nurse (1.5%), 1 speech therapist (1.5%), and 1 occupational therapist (1.5%). After the completion of the instructor training, different outcome variables concerning the usefulness of the education were measured. Eight months after training, a post survey was conducted by telephone interview to evaluate the longitudinal effects of the training (Table 1 shows the number of participants at the three time intervals).

<i>Time of measurement</i>	<i>T₁ (1st weekend)</i>	<i>T₂ (2nd weekend)</i>	<i>T₃ Post Survey after 8 months</i>
N	60	60	40

Table 1: Design of study 1

Methods

The following techniques for data collection were used in this study:

- Feedback questionnaire for the education of instructors:
A self-report questionnaire was completed by all participants after each weekend. The participants were asked to rate the contents, practicality, and structure of their training by using a five point Likert-rating scale and by responding to open questions.
- Structured verbal interview:
This self-constructed, structured telephone interview was administered six months after the end of the instructor training and collected the following data: utilisation of the TREY-C or of its elements, number of problems in its practical use, noticeable effects during or after the relaxation exercises, and use of elements of the TREY-C for personal relaxation.

Results and Discussion

This study found overwhelming acceptance of the TREY-C training curriculum. Please note, for the most part the results reflect responses to the entire sample (N=60). In some cases the sample size was smaller and the results were added to the findings, which explains that the totals don't add up to 100%. The participants' ratings of the curriculum were as follows: 68% (very good), 28% (good) and 4% (no answer). The evaluation of design and structure of the curriculum were rated in the ensuing categories: very well structured, well structured, fairly well structured, and poorly structured. Fifty-four percent of the participants rated the TREY-C curriculum as very well structured, 36% as well structured, 6% as fairly well structured, 2% as poorly structured and 2% did not respond. Responses to the question, "Do you feel secure to apply what you have learned to your practice?" were as follows: 9.7% (very secure), 57% (mostly secure), 24.7% (moderately secure), 5.4% (less secure), and 3.2% (no response). Twenty participants responded to the question: "What aspects of the training are the most relevant for your practise?" The participants judged the following aspects as particularly important for use in practice: the presentation of several methods of relaxation (65%), the opportunity of personal experience with all the techniques used in the program (50%), and the conveyance of different technical and didactical approaches (20%). The TREY-C manual developed by Stück (2000) was given to all instructors. Participants were asked: "Can you use the manual independently?" Fifty-six percent of the 60 respondents found the manual to be "very simple to use independently" and 33% indicated that it was "fairly simple to use independently". All participants (100%) found the TREY-C manual, which was published as a reference guide, to be very helpful. After the training, participants were asked for the areas of application of this stress management and relaxation approach. Twenty trainers listed the following, possible applications (trainers noted multiple applications): self-application (40%), use in current work setting (40%), use in other working settings (40%), application at their internship site (15%), use at a school office (20%), and application at an educational counselling centre (10%). Some of the student participants hoped to increase their marketability in the job market as a result of this training.

The second survey took place 8 months post-training. The interviews with the instructors showed that 29 participants (72.5%) applied the program in its entirety or in parts. Eight of those surveyed (28%) used the complete TREY-C program, while 21 (72%) practised individual elements. Interestingly, some elements of the program (breathing relaxation, imagery techniques) were not used specifically with children and adolescents (as originally

intended), but also with adults (8; 28%). Only 11 (27.5%) of the survey's respondents didn't use the program at all. The program can be applied in a broad spectrum of possible working areas. The results of the interview question, "In which context did you apply the relaxation program?" are in Table 1. Many of the instructors stated that they used several elements of the TREY-C for self-relaxation (47.5%). In response to a question about the frequency of exercise habits, 13 participants reported that they exercise sporadically (68.4%), 1 does so regularly (5.3%), and 5 do not exercise at all (26.3%).

<i>Categories</i>	<i>answers</i>	<i>%</i>
within profession:	28	73.6
• school	13	34.2
• internship in psychiatry of children and youth	5	13.2
• rehabilitation centre/hospital* cardiological, neurological, voice disorders	3	7.9
• university (presentation of the program within the seminar)	2	5.3
• educational counselling centre	1	2.6
• ooccupation training centre (work with unemployed persons)	1	2.6
• physiotherapy practice	1	2.6
• single case work with hyperactive children	1	2.6
• seminar-work with adolescent people in a hostel for children	1	2.6
• within private sector	7	18.5
• within profession and private sector	3	7.9
Total	38	100%

Table 1: Professional contexts for the use of the TREY-C

In child and adolescent psychiatry settings, TREY-C was practised with boys who were diagnosed with ADHD, behavioural disorders, adjustment disorders and affective disorders. The children in this setting were referred as a result of poor school performance, school anxiety or mild to moderate mental retardation. Some of the children participated in the program for

* Imagery and the initial relaxation were only applied with adults.

treatment of the symptoms of encopresis and/or enuresis. The majority of female clients were diagnosed with eating disorders. In some cases a history of abuse was suspected. Patients with Borderline Personality Disorder and Obsessive-compulsive Disorder were also part of this psychiatric population. Suicidal ideation was a significant symptom. The patients' ages ranged between 6 and 18 years. The training was implemented with groups of 12, which made the exercises more challenging to complete. Among all the described settings no contraindications of TREY-C were observed. The results and responses, however, were quite varied. Some of the children with ADHD resisted the exercises as a whole, by sleeping or behaving in a disruptive manner. It was observed that patients with ADHD became even more restless during the final stage of the exercise. Behaviour problems arose when groups were heterogeneous in regard to the age and intelligence. The majority of the child and adolescent group members reported that they enjoyed the exercises. Furthermore, the children reported that they practised the techniques at home and sometimes even taught the exercises to other members of their families. The short duration of time in which the instructors were involved with the groups in the clinics, precludes conclusions about long-term effects.

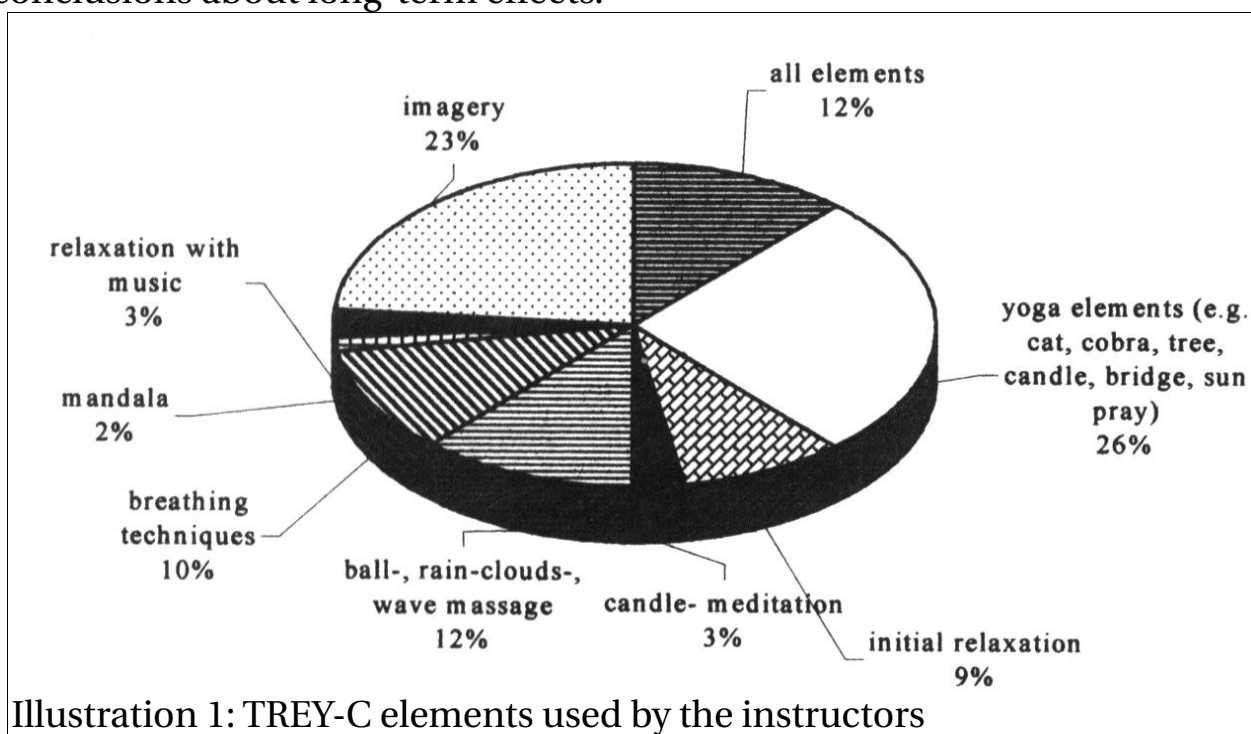


Illustration 1 depicts the various relaxation techniques used in the program in a pie graph format. Elements of Yoga and imagery techniques were used most frequently. The choice of techniques varied depending on the different goals, for example: children's relaxation, demonstration for children and

parents, well being and wellness, warm-up for other relaxation techniques, class room based relaxation training, and in clinical setting, according to the demands of the children.

Instructors were asked about specific problems that had occurred in the TREY-C training process. Twenty-three percent of the instructors responded that they had no problems. The most common problems described were: external disturbances (15%), organisational problems (12%), initial shyness of group members and low self-confidence (12%). The following problems were reported but only occurred rarely: back pain, headaches, refusal to participate in the exercises, arousal of strong emotions and behavioural problems in heterogeneous groups.

<i>Categories</i>	<i>answers</i>	<i>%</i>
Relaxation, calming down, balance, sense of well-being	21	50.0
Fun/pleasure/stimulation/interest	7	16.6
Increase of concentration	6	14.3
Good learning effects (e.g. combination of breathing and movement)	3	7.1
Participants felt asleep	2	4.8
Feeling of freshness	2	4.8
Increase of group adhesion	1	2.4
Total	42	100.0

Table 2: Training effects observed by instructors of TREY-C

<i>Suggested categories</i>	<i>answers</i>	<i>%</i>
It was fun	10	40
Felt warmth and relaxation	4	16
Practising at home	4	16
Several exercises were unpleasant and difficult	2	8
Growing interest in relaxation exercises	1	4
Astonishment about variety of exercises	1	4

Table 3: Verbal reactions observed by the instructors

The effects of training as observed by the instructors are summarised on Table 2. Group members' comments in response to the training as reported

by the trainers are presented on Table 3.

The effects of the program were clearly shown by the observations of the trained instructors and the verbal reactions of the young group members. Not only were the main effects of stress reduction in the form of relaxation, greater calmness, and emotion balance apparent, but secondary gains of increased attention, motivation, fun and transfer of learning into daily activities were demonstrated.

Conclusion

The results of this study show that the training of the instructors as well as the application of the TREY-C program for the stress management of children can be put into practice and can be successful in a variety of settings. The participants for the instructors' training came from different occupational groups in both school and clinical settings. Apparently, this stress management program is effective in these settings. The TREY-C program was shown to be a practical method of intervention for children with different affective and behavioural problems in clinical settings when qualified psychologists were involved. The trainees concluded that the instructors training program as described in this study was effective as far as time and content. It enabled them to apply the program in their professional settings both theoretically and practically. The instructor's training is seen as a critical component to maintain high standards of quality in the participants' professional and personal development. Results of post-training interviews show that 72% of the students who have completed the instructors' training use the program or parts of it in various settings (school, child and adolescent psychiatric clinics, rehabilitation centres, parenting enrichment classes, and continuing education). Yoga exercises and imagery techniques from the TREY-C are used frequently used separately. The TREY-C seems to be a good source for techniques to use in a variety of contexts. The program was used in its entirety by 28% of all trained instructors. During and after the training, Yoga exercises became an important element in the instructors' professional life. Instructors implemented this program in work with patients suffering from affective, behavioural and psychosomatic disorders (enuresis, eating disorders, encopresis, ADHD, suicidal ideation, school truancy, test anxiety). No contraindications were experienced with those who took part in the training and practical use of the program. The instructors reported the following effects as a result of TREY-C: increased relaxation, greater well being, increased attention, enjoyment of the exercises, and the ability of doing the exercises at home. The children responded very well to the Yoga elements and to the broad variety of the other TREY-C exercises. Instructors found it easy to motivate the children. The instructor's handbook was evaluated as

an important tool for teaching the exercises and of testing elements of the training. Future research on the application of the TREY-C program should focus on the following points: effectiveness of the TREY-C program on different diagnostic groups in child and adolescent psychiatric settings, comparative evaluation studies of the TREY-C with different treatment groups. Lohaus & Klein-Heßling (2000) used different self-regulating interventions with children (e.g. exercising, music, cognitive-behavioural). Psycho-neuro-immunological, psychological, endocrinological effects of TREY-C use of the combination of the TREY-C with other stress management programs suitable for children, which focus on external coping abilities development and evaluation of the empowerment approach of the TREY-C (children take over the roles of Yoga teachers).

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