

Research Article

SPRINTS-Sand Play Reprocessing Integrating Nonverbal Trauma-Interventions and Self-Stabilization. A Controlled Pilot Study

Beate Leinberger*

Department of Psychosomatics, University Hospital Regensburg Franz-Josef-Strauss-Allee 11, 93053 Regensburg, Germany

***Corresponding author:** Beate Leinberger, Department of Psychosomatics, University Hospital Regensburg Franz-Josef-Strauss-Allee 11, 93053 Regensburg, Germany

Received: 15 March 2022; **Accepted:** 22 March 2022; **Published:** 30 April 2022

Citation: Beate Leinberger. SPRINTS-Sand Play Reprocessing Integrating Nonverbal Trauma-Interventions and Self-Stabilization. A Controlled Pilot Study. Journal of Women's Health and Development 5 (2022): 139-151.

Abstract

Introduction: Psychic traumata among children, e.g. familiar violence, war, political suppression or secondary because of the pandemic situation, are very important medical topics worldwide. Because of the lack of psychotherapists more or less anywhere, multipliers as co-therapists should be integrated. These specially trained non-professionals we call Traumahelpers (TH). In the last seven years pilot projects in German, Telangana (India), and Palestine were performed.

Method: TH first learn self-stabilization techniques: Slow Paced Breathing, Somatic Universal Regulative Exercise and different techniques of Bilateral

Stimulation like tapping or "lying eight", which are near to children's daily living experiences (e.g. swinging, drawing slopes, singing, move and run) and all derivatives from the established traumatherapy-concepts. At the end the TH experience the Sandplay-Therapy, the nonverbal equivalent of desensitization reprocessing.

Results: In this pilot Study 15 children, aged 5 to 12 years, sectioned in two groups (one in Germany and one in Andhra Pradesh, India), diagnosed with the Depression Self Rating Scale and the Children – Impact of Event Scale had up to 10 Sandplay sessions, within three to five months. Every child had its individual TH during all the sessions. If the TH

observed emotion or excitement, he or she offered self-stabilization exercises which he or she performed together in a manner that the child was able to do it even alone.

Conclusions: The children improved significant, comparing pre-post results and a one-year katamnesis and compared to the not yet treated multicenter controls. The concept can be easily transferred in different cultures.

Keywords: Children; Psychic Trauma; Relaxation; Controlled Study; Self-Help

1. Introduction

In the last decade the burden of psycho-traumata among children and adolescents became a world-wide problem. The idea is to integrate trained lay as co-therapists [1] within the trauma-therapy so that one professional therapist gets more effective. These specially trained non-professionals we call "Traumahelpers (TH)". In the last seven years the procedures have been applied in pilot projects in different German Cities, Telangana (India) [2], Palestine and Gaza City (Multicenter Approach). The Children got the same diagnostics: Levels of burden are comparable, reason of traumatization as different as societies are (parental psychological and physical violence, severe disease, rape, terrorism, flight, war etc.). The project started with Syrian and Iranian refugee children in Germany. The collaboration with India resulted from a Traumahelper-training in

Germany, where a participant was identified working as a Lutheran pastor since many years in projects in India. The tasks to be mastered there were many: But to start with the easiest challenge: To recruit parents or educators to be trained as Traumahelpers was not difficult, but the level of academic training is very different in comparison to the European standards. Even if English is the national official language in India, continuous translations in Telugu, and sometimes in Hindi had to be performed permanently. For that a sequential procedure was chosen. More than that, the transport of the information needed they had to be divided in small portions and local traditional teaching methods rather than power-point-presentations were necessary.

2. Methods

Traumahelpers, most of them teachers, nurses, social workers or students in a 16 hours course learned the theoretical background they need (symptoms, especially of children, some neuroscience to understand the performed treatment and the complications), a bundle of self-stabilization techniques: Slow Paced Breathing (SPB) [3-5], Somatic Universal Regulative Exercise (SURE) [6-8] and different techniques of Bilateral Stimulation like tapping [9-12] or "lying eight", which are near to daily living experiences children have (e.g. swinging, drawing slopes, singing songs, play instruments, move and run) [13, 14] and at the end the Traumahelpers experience the Sandplay-Therapy [15, 16] (Table 1 and 2).

<p>The training consists in a 16-hours teaching unit set on two days eight hours per day. Unusually there are trained 50 to 90 participants (better 50), which for half of the time have plenary lectures and for the technical training and the self-experience are split. Furthermore they get as already mentioned papers, written material (as letters to the diverse institutions involved in the local projects: to the parents, the teachers, the local sanitary units etc.) also informationsmaterial in the native languages of the target groups as well as short videos on Youtube are available, free psychological testing, which could be helpful, material lists etc. All together offered about three hours videos and about 500 pages to read and a reader with information about 200 pages (in English).</p>
<p>Basic information about the current state of political affairs in handling the procedure for the right of asylum, because many Traumahelpers are involved as volunteers or professional helpers for refugees or migrants and they should know about the current circumstances to understand possibilities of treatments according to the shifting political situations.</p>
<p>Neurophysiological basic knowledge about traumatization to get a deeper understanding in the special behavior of traumatized people.</p>
<p>Detection of trauma and trauma-consequence disorders in children and adolescents with all the symptoms which are classified in DSM V (American Psychiatric Association 2015) or ICD 10 (Remschmidt, Schmidt, and Poustka 2017) and additional children-specified symptoms (Weinberg 2013; B. A. van der Kolk u. a. 2009; Scheeringa u. a. 2012) Use of evidence-based screening procedures</p>
<p>Secure usage of effective interventions of stabilization techniques to reduce trauma symptoms as far as necessary. Safe usage of verbal and non-verbal methods in the Sandplay-Therapy groups also if children may not know the German language (Beate Leinberger und Loew 2016)). The transfer of the self-stabilization techniques to the affected children and assisting in the right application and support in prevention of the development of chronic mental disorders caused by traumatization (PTSD, depression, impulse control disorder, anxiety disorder, etc.).</p>
<p>Psycho-hygienic exercises for Traumahelpers in order to avoid a secondary traumatization.</p>
<p>Follow-up of the participating lay- and professional helpers, as far as necessary towards effectiveness of the trained tools and secondary traumatization.</p>
<p>The treatment concept is structured. The essentials can be learned by lay helpers in a weekend workshop if they are willing to study the handouts and backgrounds material provided (eg. 3 hours of videos and 1 GB of written manuscripts). It is based on the current findings on the development of mental disorders caused after having experiencing a severe traumatic event and, above all, it provides preventive strategies, because chronic changes in the brain after trauma should be prevented through the use of the presented techniques and as a result serious disorders such as post-traumatic stress disorder, depression and anxiety disorders and social incompatible behavior disorders do not manifest or become less pronounced. With help of the use of the here presented techniques chronic neurologic changes after traumatization should be averted. To prevent that grave disturbances like PTSD, depression, anxiety disorders and abnormal social behavior do not or less pronounced establish.</p>

Table 1: Overview of the 16 hours training program, meanwhile performed for more than 2000 Traumahelpers worldwide on 4 four continents.

The First Day
A plenary session is been started with general information about the project and is giving some background information about the real situation of the refugee kids (2 units).
Then follows a lecture about the symptomatology, especially for the children and the clinical diagnostic (UCLA-Child – traumatic stress inventory, DSRS and CRIES).
In the afternoon the group splits: In one group the first self-regulation-techniques and the neuroscientific background (SPB, SURE and Bilateral Stimulating techniques are explained and experienced by the participants in order to understand how they can be used in an escalating manner to prevent symptoms in children – while reprocessing later on but also in daily life situations e.g. at school or in family (2 units).
The other group gets the Sandplay-therapy conception where the special setting is explained and they experience the Sandplay by themselves in groups of three (one plays the child, one the Traumahelper, one is observing the scene; than they reflect their experiences and change position, so that everybody can feel how a child feels playing and reprocessing or the Traumahelper is acting (2 units). Most participants very fast play real more or less traumatic scenes out of their lives and can experience the emotional control realized by using the self-stabilization techniques and the relationship between Traumahelper and child. After 90 minutes the groups change, so that all will have both: theory and practice.
The Second Day
Start again in splitted groups. One group will get presented the use concepts of Lifeline-Therapy, another technique used for adolescents and adults, role and use of the “safe inner place”, that means to picture a safe place with crayons on paper and to implement the safe place memory as an inner picture they could use for the future to stabilize themselves supporting the process overlaying the inner image of the save place with in this case slow eye movements or tapping. Every participant will do this for him or herself in teams of two to three where they practice Bilateral Stimulation (Eye movement or tapping respectively) The participants than study their personal Trauma-Landscape with trying to use the visual analogue scale by themselves. (3 units).
The other group starts with a cultural lecture, if needed, in the case that the refugee children and adolescents disposed to come to the Sandplay-groups will have another religion and ethnicity than the Traumahelpers have and further self-stabilization techniques as FR, again with the scientific background and self-experience (3 units). Even at the second day the groups rotate.
For the last two units the groups join together again. They get presented now a real reprocessing of a traumatic experience shown by a volunteer including documentation before and after the Bilateral Stimulation and more information about the problems of secondary traumatization and self-testing to monitor their own burden during the work. At the end the last open questions (e.g. setting, recruiting etc.) are cleared.
At the end an evaluation form is filled, which will be done again after 6 months to see whether the participants could use what they did learn and how helpful it was.
If it's possible – so it was in India and Palestine - we start with local real burdened children, which were screened before. They fulfill together with their Traumahelpers the psychological tests and then they start a normal Sandplay-session followed by an hour supervision.

Table 2: Schedule.

The children had in three to five months altogether 10 Sandplay sessions. Every child had its own individual Traumahelper who had to stay beside his or her child during all the ten sessions. If the Traumahelper observed emotion or excitation in the child, he or she offered self-stabilization exercises which he or she performed together with the child in a manner that the child was able to perform the techniques even alone. The sessions were both started and closed with a song together [14] including all described self-stabilization techniques, a simple way to introduce and perform the established methods for self-stabilization: Singing actually as a kind of Slow Paced Breathing [4, 5], tapping as a kind of Bilateral Stimulation [10-12] and walking on the place as a kind of Somatic Universal Regulative Exercise (SURE) [8]. The companionship of the automatically started and unconsciously controlled reprocessing by every single child is sufficient.

More than that: Not to give verbal interpretations or clarifications or more than mimic or semantic emotional support, like “hmm” or considering the scenes, and not to force to play the dramas in the children's life [17] but to support the unconscious time-planning of the child, helping him or her only by regulating down probable arousals or the stress level in general animating to use the self-stabilization techniques seems to be the efficient element. The content was to put information into short songs and visualized using models from the daily life of the participants, e.g. like a tree used as a symbol for at the same time the incapacity to move from the place but nevertheless the property to react by flexibility and

having so something at ones command to overcome impacts, or fruits to have a symbol to build a bridge to the understanding of the vegetative nervous system, the role of energy support to the body and of the respiration to strengthen metabolism. Or a book (made from plants and woods) to integrate knowledge about physiology, active movements (like to thumb through) and respiration (while reading or singing loud) and to apply it (otherwise it wouldn't make sense to write it down). International, since many years introduced psychological tests as the Depression Self Rating Scale (DSRS) [18, 19] and the Children – Impact of Event Scale – CRIES-8 [20, 21] were used for clinical evaluation.

3. Results

The Pilot-Group, refugee children from Iraq (n= 3) and Syria (n=5) got after the described above structured assessment 10 sessions Sandplay within three months and two follow ups at the end of the treatment and one year later. The sample consisted in 5 boys and 3 girls, mean age 9 years, SD 3. Table 6 shows means and SD for the standardized outcome testing. There were significant reductions in the CRIES (paired t-testing), improvements in the first ($p < 0,05$) and a tendency ($p = 0,098$) in the second follow up. A not significant reduction of depressive symptoms (measured by DSRS) was found at the first follow up ($p = 0,081$), but highly significant after one year ($p < 0,001$). The effect sizes range between 0,45 and 0,63. (Table 3) Means and SD of the Indian xperimental group and the effect sizes are shown in table 3. There are found high Effect sizes r.

Tests (n=8)	Mean	Standard-Deviation	Effect size r
DSRS pre	18,1	7,1	0,45
DSRS 1st follow up	10,5	8,0	
DSRS 2nd follow up	6,9	6,4	0,64
CRIES pre	23,9	8,9	0,63
CRIES 1st follow up	9,1	9,4	
CRIES 2nd follow up	15,7	6,8	0,45
Middle effect size > 0,3, strong effects >0,5 (fat)			
The Indian Children: Symptom and Burden Changing after Sandplay			
Tests (n=7)	Mean	Standard-Deviation	Effect size r
DSRS pre	18,1	3,6	0,75
DSRS 2nd follow up	10,3	4,3	
CRIES pre	16,0	3,3	0,55
CRIES 2nd follow up	12,0	2,8	
Middle effect size > 0,3, strong effects >0,5 (fat)			

Table 3: The Arab Refugee Children Sample: Symptom and Burden Changing after Sandplay.

After having shown the effectiveness of the concept, the next group was treated in India. There a control group could be recruited, because already from the beginning it was clear that the project will be continued. So altogether at the Hyderabad Child Guidance Center 43 children and adolescents were examined. 74% (n=32) were girls (average age 14,4 years, SD 4,6) and 26% (n=11) were boys (average age 13,9 years, SD 4,2). In regard of the age there were no significant differences. 23% (n=10) of the participants were surely traumatized in their lives before, a probable traumatization was assumed by the educators in 63% (n=27) of the cases; no evidence was found in 14% (n=6). There was no significant difference concerning sex and age (mean age in participants with a trauma history 15,6 years, SD 4,3, probable trauma-history: mean age 13,4 years, SD 4,4; no trauma: mean age (n=2), 11 years. (Table 3) 14 out of the 43 had a mental or somatic disability,

being as traumatized as the others, with a larger number of females, but they were elder (mean age 18,6 years SD 3,1).

The average score in CRIES was 11,1 (SD 5,8) compared to 13,3 (SD 8,5). Mean depression measured by DSRS at the beginning was 14,7 (SD 4,5). The decision was made not to include in India so called “special” children in the first Indian Sandplay-group therefore and a defined age limit was kept; only children not having past 13 years were evaluated. Because of the small numbers Mann-Whitney-U-Testing with independent samples (experimental- vs. control-group) was done. Both groups had significantly different assessments at beginning. The treatment group in both testing (CRIES, DSRS) had higher scores; (p>0,05) Means and SD see table 7. Considering the depression-score of the experimental group the changes were

significant either in the first and the second follow up, but not in the control group, which already had a lower score at the first assessment. The Impact of Event (CRIES) Scores improve significantly in the experimental group, too, but not in the control-group. Table 7 demonstrates the results of the Arabic Sandplay group reaching a high effect size r in comparison to the Indian control group, whereas in case of the depressive syndrome even a high effect size can be observed. (Table 4).

Analyzing the intra-individual changes in the treatment period there are found highly significant results for CRIES and significant results for the DSRS. The Changes remain stable up to the second follow up (See table 5; paired t-Test). Nevertheless, also in the control-group the depressive symptoms improved significantly (Table 5). The remaining 21 of the sample participating at the second follow up, even showed significant improvements. All could benefit from the exercises. Whether they were disabled or not or having a probable psycho-traumatization or not didn't play a role (Table 6). Comparing the children having participated at

Sandplay with the other part of the Indian sample from which catamnestic data have been collected ($n=29$), there is shown a significant advantage of the reprocessing, both in the pre-post and the intra-individual comparison (See table 7).

The level of depression is comparable, as expected the impact of event in the experimental group was higher. At the end of the first observation period and after 10 months there is a significant advantage in the Sandplay-group. Regarding the impact of event reaching the 1st follow up there was a significant reduction ($p<0,05$), but not more at the 2nd follow up. Comparing the groups intra-individually the reductions are still more impressing (Table 8, $p<0,05$). In a next step the intra-individual differences between the Indian control-group ($n=8$) and the Indian experimental group were compared. There were found highly significant changes ($p<0,001$) in the case of the reduction of depressive symptoms in the long term follow up, but not considering the impact of event scales. No differences were found comparing the Indian and the Arabic experimental group.

n=8; Controls n= 7	Sandplay (Arabic)	Effect size r	Control-Group	Effect size r
CRIES pre: Mean (SD)	23,9 (8,9)	0,63	6,3 (6,7)	0,2
CRIES 2nd follow up: Mean (SD)	9,1 (9,4)		4,5 (2,6)	
DSRS pre: Mean (SD)	18,1 (7,1)	0,45	11,7 (2,7)	0,6
DSRS 2nd follow up: Mean (SD)	10,5 (8,0)		8,4 (1,9)	
Middle effect size > 0,3, strong effects >0,5 (fat)				

Table 4: Comparison of the Experimental- and a Matched Pair Control-Group (by Sex and Age).

n=8; Controls n= 7	Sandplay (Arabic)	Control Group
CRIES pre: 2nd follow up: Mean (SD)	8,4 (11,4)	1,9 (7,0)
DSRS pre: 2nd follow up: Mean (SD)	12,3 (4,7)	3,4 (2,6)

Table 5: Comparison of the Intra-individual Changes (Experimental Group) and a Matched Pair Control-Group (by Sex and Age).

	Mean (SD)	Effect size r
CRIES pre	13,1 (7,6)	0,37
CRIES 2nd follow up	8,2 (4,2)	
DSRS pre	14,1 (4,4)	0,55
DSRS 2nd follow up	9,6 (2,0)	
Middle effect size > 0,3, strong effects >0,5 (fat)		

Table 6: All other children (n=21; without the controls).

Impaired t-Test	Sandplay (n=6)	All others (29)
CRIES pre: Mean (SD)	18,0 (4,2)	11,2 (7,5)
CRIES 2nd follow up: Mean (SD)	5,7 (4,3)	6,8 (4,2)
DSRS pre: Mean (SD)	17,0 (5,3)	13,8 (4,2)
DSRS 2nd follow up: Mean (SD)	8,2 (3,1)	9,3 (2,0)
Comparison of the Intra-individual Differences		
CRIES pre – 2nd follow up: Mean (SD)	12,3(3,2)	4,4 (5,5)
DSRS pre – 2nd follow up: Mean (SD)	8,8 (5,4)	4,5 (4,0)

Table 7: Comparison of the Indian Experimental Group and All Other Indian Children Having Had a Test-Re-Test Evaluation (= including controls).

Sandplay (India, n=7) A	A	B
Sandplay (Arabic, n=8) B		
CRIES pre – 1st follow-up: Mean (SD)	12,3 (4,7)	14,7 (5,5)
CRIES pre – 2nd follow up: Mean (SD)	12,0 (2,8)	8,4 (11,4)
DSRS pre- 1st follow up: Mean (SD)	11,0 (6,0)	7,6 (10,6)
DSRS pre – 2nd follow up: Mean (SD)	10,3 (4,3)	12,3 (4,7)

Table 8: Comparison of the Arabic Experimental and The Indian Experimental Group.

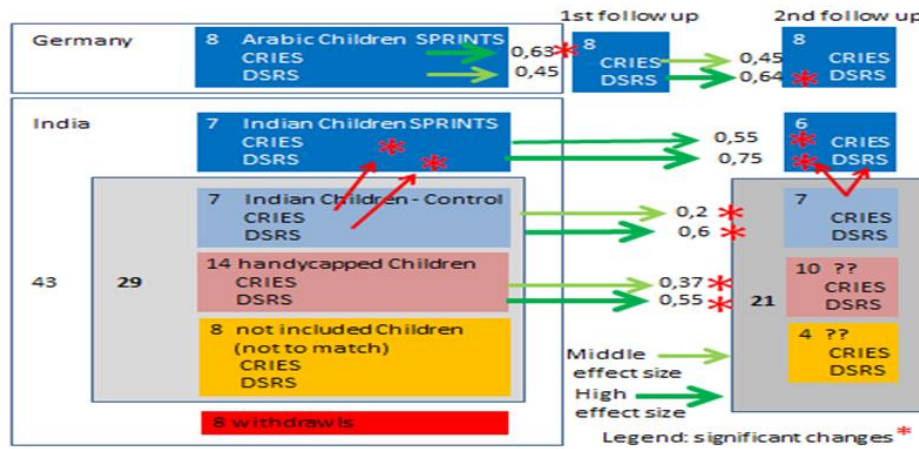


Figure 1: Schematic overview of all testings.

4. Discussion

Compared to pre-post results (see above) from the previously untreated multicentre control group, the children significantly improved their scores. There was no need for translation during the sessions, because children after an at least 3 month stay in Germany knew enough German words to cope with the situation, a large knowledge of the language is not needed, because construed as a non-verbal functioning therapy technique; under homeland conditions the question of understanding each other's language didn't rise up in therapy sessions. Generally speaking, the therapy sessions took place in rooms that the children already knew from school or courses after school, which was very helpful. The selection of potential members of the first pilot group was made by chance by the teachers of the refugee children in the first months in Germany. A screening procedure at that time in Germany seemed from the point of view of the authorities not politically correct, in the first months of the refugee crisis, as well as establishing a control-group. Therefore the control-group was recruited via the project at the Child Guidance Center, Hyderabad, being exactly a waiting

list group, because there it was clear, that the Sandplay-groups will continue and earlier or later being open for all.

In Comparison to the situation in Germany, where it could happen that the refugees could be moved very fast to a new residency, the Indian children should stay after admission in the so called happy homes for some years. The significant reductions in regards to the denoted impact of events are up to the goal of the here presented therapeutic approach. Mostly high effect sizes are found, partially in the not experimental groups only by using the self-regulation techniques without reprocessing. At the beginning in the German scientific and psychotherapeutic community the introduction of lay helpers was heavily discussed But the results show, that the concept of assisting the professional child-psychotherapist and therefore allow to treat more children not in an individual therapeutic setting but in a group, is the right way The door is opened to do further interesting and required research, maybe using the videotapes of the sessions and the clinical knowledge about the children. The not statistical

documented not sufficient reduction of the depressive syndromes seen in the first observation period in Germany could be also influenced by the very heavy living situation of the children and their parents, often also mentally ill or traumatized and not treated because of the circumstances and first of all the ongoing fear of sent back to the home country means back to sorrow, violence and war. But nevertheless, the results at the 2nd follow up after one year showing a highly significant reduction are satisfying.

The statistical results obtained from the Indian sample are auspicious. To get information about traumatization in this population is sometimes difficult, because the Indian society is not very open. But in 10 of the participants (all orphans) the biography was clear and a trauma documented, because of the circumstances the children have been found in the streets, e.g. left alone in trash cans, railway stations or in front of "Happy Home"-doors. Sometimes a probable traumatization was assumed by the educators (in 63%; n=27). A further aspect was the high rate of disabled children (14 out of the 43), having been traumatized in an equally coverage, with a larger number of females. The disabled were elder (mean age 18,6 years SD 3,1), because kept longer in the institutions like the CGC.

The Score in regard the trauma is little lower than in the reference groups (mean 11,71 (SD 5,85) compared to 13,31 (SD 8,55) and in the average slightly depressed (DSRS at the beginning mean 14,7 (SD 4,5)). A nice side effect picked up of the training of the Traumahelpers which were recruited out of the staff of the institution, was the not expected development of the symptoms. Because of the narrow contact between the children, participating at the experimental group and the others not participating, all were learning the self-stabilization-techniques,

e.g. the songs including SURE (walking on the place), SPB (while singing) and Bilateral Stimulation summarized as performed in the "action-song" Aramsamsam or SURE, in the original form, by simply copying or the "lying eight", which they get like sweepstakes and was copied by all, too, as the educators reported, voluntarily performed even outside of the defined program, too. The Traumahelper-training in India could be valued as a full success. More than that: The effects already seen in refugee kids in Germany participating Sandplay could set on a more stable ground using the Indian waiting list group as matched controls. At the beginning, as expected, because the more burdened children should have been treated first, so the experimental group had significantly higher scores in both testing; (CRIES, DSRS; $p>0,05$), but in consequence also a significant improving either in the first and the second follow up. In the direct comparison, there was not so an impressive improvement in the control group, which had, as already mentioned, a lower score at the first assessment.

The Impact of Event-Scores improved significantly in the experimental group, but not in the control-group, comparing pre – post scores. The effect size r can be valued as very effective ($r > 0,5$) meaning a good outcome. Even the intra-individual changes were highly significant for CRIES and significant for the DSRS. Beside: the depressive symptoms, even were lower scored at the beginning, the children improved significantly at the 2nd follow up. So clinically stated, there are seen very good effects after a treatment of 5 months in the Indian experimental group, performed due to external reasons and different from schedule, more or less only every second week for 5 months after a follow up of further

5 months not only stable but more improved. And the remaining 21 of the sample participating at the second follow up, even they showed significant improvements. All CGC Children could profit from the exercises. Whether they were disabled or not or having a historical recorded potential psycho-traumatization or not, they all showed better results at the end. In conclusion: A two day training of all teachers, educators and some helping parents (mostly of the disabled children) to enable the participants in diagnosing and scoring abnormal behavior but at the same time to instruct the children three different self-stabilization-techniques and emotional control opens a very effective and helpful route. But not enough: The reevaluated special procedure Sandplay-Therapy combining reprocessing and applying self-regulating techniques plays the effect seen in the group of the other 29 children having been observed, out, both in the pre-post comparison and the intra-individual differences. So the effort, to realize Sandplay and not only to invest in a general Traumahelper instruction is profitable. But to offer “only” a Traumahelper training to improve the daily life potential is worth, too. Even the Traumahelpers by themselves can profit significantly for their self-regulation, as a recent study shows (B Leinberger, Dasi, und Loew 2018).

The first, now published German study about the consequences of trauma in children (Verlinden and Lindauer 2015) the authors conclude: 1st) Psycho-trauma is seen and has to be treated even in Germany. 2nd) Even if the German medical system is highly developed not even approximately all children with symptoms can get psychotherapy in the usual way (single sessions in ambulatories, private practice or institutions). There is no doubt, that this problem is seen world-wide. So what is special in this Sandplay-

Therapy concept? Capacities and efficacy of the nonverbal therapeutic approach is multiplied in consequence of the group concept. One child- and adolescent--psychotherapist can treat up to ten Children in weekly sessions for 12 weeks. So instead of two or three children in single settings, usually one hour a week with this Sandplay concept in the same time the psychotherapist can - with the help of the Traumahelpers treat about 30 children. The Traumahelpers are included as so-called co-therapists, persons acting as attachment figures which stay stable with their foster child for these three months, so that they bridge the therapeutic process. This enables the children, to show and to share their traumatic experiences to a witness and helps to reduce their burden. The presence of the Traumahelper in the group ensures the necessary awareness to the traumatized child all the time also offering and guiding self-regulation techniques like e.g. Bilateral Stimulation while the psychotherapist puts its attention on the whole group and intervenes, if needed, and supports the Traumahelper individually in critical situations.

Conclusions

The Sandplay-Therapy is good for children which have experienced flight or other traumatizations showing trauma-symptoms as mentioned. The aim is to prevent chronic symptoms which would influence the performance in the daily life activities and normal participation in their societies. It is an easy to use and less expensive. Apart from this, the trained trauma assistants were also able to benefit personally in addition to the special setting; the clinical improvements are also significant in the non-specially treated group. The concept can be easily transferred in other cultural spaces, as proven in this multicenter study. The main goal is to avoid chronic symptoms, which

would affect the capacities to participate in the social life. Children having already PTSD diagnosis should be presented to an expert child psychiatrist or child psychotherapist. They need more treatment in single sessions. This also extends to children not being able to perform in groups because they have behavioral disorder in a manner that they disturb consequently and reduce the success of other participants.

References

1. Brown RC, Witt A, Fegert JM, et al. Psychosocial Interventions for Children and Adolescents after Man-Made and Natural Disasters: “A Meta-Analysis and Systematic Review. *Psychological Medicine* 47 (2017): 1893-1905.
2. Leinberger B, Dasi R, Loew TH. Functional Relaxation, SURE, Slow-Paced Breathing, Bilateral Stimulation: Is there a Further Relevant Stress Reduction in Yoga Trained People? Poster-Presentation gehalten auf der European Association of Psychosomatic Medicine C-L Psychiatry, Abstract and Poster EAPM (winner of the best poster award), Verona, Italy (2018).
3. Amon KL, Campbell A. Can Children with AD/HD Learn Relaxation and Breathing Techniques through Biofeedback Video Games? *Australian Journal of Educational and Developmental Psychology* 8 (2008): 72-84.
4. Nardi AE, Freire RC, Zin WA. Panic disorder and control of breathing. *Respiratory Physiology and Neurobiology* 167 (2009): 133-143.
5. Russo MA, Santarelli DM, O'Rourke D. The physiological effects of slow breathing in the healthy human. *Breathe* 13 (2017): 298-309.
6. Baldwin DV. Primitive Mechanisms of Trauma Response: An Evolutionary Perspective on Trauma-Related Disorders. *Neuroscience and Biobehavioral Reviews* 37 (2013): 1549-1566.
7. Kunze T, Aliev H. Coping with disasters 'idle': SURE A Russian, body-oriented relaxation technique. *Schattauer Verlag Psychodynamic Psychotherapy* 5 (2006): 54-58.
8. Loew TH, Kutz P. Short Universal Regulative Exercise (SURE). Eine randomisierte, kontrollierte Studie zum Nachweis der Stressreduktion und Prävention bei Einsatzkräften durch ein neues Entspannungsverfahren im Vergleich zur Progressiven Muskelrelaxation. *Die Psychodynamische Psychotherapie* 9 (2010): 86-95.
9. Church D, Yount G, Brooks AJ. The effect of emotional freedom techniques on stress biochemistry: A randomized controlled trial. *J Nerv Ment Dis* 200 (2012): 891-896.
10. Morawetz C, Bode S, Derntl B, et al. The effect of strategies, goals and stimulus material on the neural mechanisms of emotion regulation: A meta-analysis of fMRI studies. *Neurosci Biobehav Rev* 72 (2017): 111-128.
11. Nakatani Y, Nakagawa I, Sekiyama T, et al. Tapping Touch Improves Negative Mood via Serotonergic System. *Neuroscience Research Supplement* 65 (2009): 244.
12. Wittfoth D, Pfeiffer A, Bohne M, et al. Emotion regulation. through bifocal processing of fear inducing and disgust inducing stimuli. *BMC Neurosci* 21 (2020): 47.

13. Runsen C, Gillespie A, Zhao Y, et al. The Efficacy of Eye Movement Desensitization and Reprocessing in Children and Adults Who Have Experienced Complex Childhood Trauma: A Systematic Review of Randomized Controlled Trials. *Frontiers in Psychology* 9 (2018): 534.
14. Aramsamsam-Bewegungslieder zum Mitsingen II Kinderlieder (2017).
15. Baggerly J, Ray DC, Bratton SC. *Child-Centered Play Therapy Research. The Evidence Base for Effective Practice.* Hoboken, New Jersey: John Wiley and Sons Inc (2010).
16. Murray J. *Exposure Therapy: New Developments.* New York: Nova Science Publishers (2012).
17. Schauer, Maggie, Thomas Elbert, et al. Narrative exposure therapy: a short-term intervention for traumatic stress disorders after war, terror, or torture. 2nd rev. and expanded ed. Cambridge, MA: Hogrefe (2011).
18. Birleson P. The Validity of Depressive Disorder in Childhood and the Development of a Self-Rating Scale: A Research Report. *Journal of Child Psychology and Psychiatry* 22 (1981): 73-88.
19. Birleson P. Clinical Evaluation of a Self-Rating Scale for Depressive Disorder in Childhood (Depression Self-Rating Scale). *Journal of Child Psychology and Psychiatry* 28 (1987): 43-60.
20. De Young AC, Kenardy JA, Cobham VE. Diagnosis of posttraumatic stress disorder in preschool children. *Journal of Clinical Child and Adolescent Psychology* Nr 40 (2011): 375-378.
21. Perrin S, Meiser-Stedman R, Smith P. The Children's Revised Impact of Event Scale (CRIES): Validity as a Screening Instrument for PTSD. *Behavioural and Cognitive Psychotherapy* 33 (2005): 487-498.



This article is an open access article distributed under the terms and conditions of the [Creative Commons Attribution \(CC-BY\) license 4.0](https://creativecommons.org/licenses/by/4.0/)