






Therapist rotation: a novel approach for implementation of trauma-focused treatment in post-traumatic stress disorder

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ABSTRACT

Background: Trauma-focused treatments (TFTs) for patients with post-traumatic stress disorder (PTSD) are highly effective, yet underused by therapists.

Objective: To describe a new way of implementing (adequate use of) TFTs, using a therapist rotation model in which one patient is treated by several therapists.

Method: In this article, we will present two examples of working with therapist rotation teams in two treatment settings for TFT of PTSD patients. We explore the experiences with this model from both a therapist and a patient perspective.

Results: Our findings were promising in that they suggested that this novel approach reduced the therapists' fear of providing TFT to PTSD patients, increased perceived readiness for TFT, and decreased avoidance behaviour within TFT sessions, possibly leading to better implementation of TFT. In addition, the therapeutic relationship as rated by patients was good, even by patients with insecure attachment styles.

Conclusions: We suggest that therapist rotation is a promising novel approach to improve implementation of TFT for PTSD.

La rotación de terapeuta: Un enfoque original para la implementación de tratamiento focalizado en el trauma en el TEPTRESUMEN

Antecedentes: Los tratamientos focalizados en el trauma (TFT en sus siglas en inglés) para pacientes con Trastorno de Estrés Traumático (TEPT) son altamente efectivos, pero todavía los terapeutas no los usan suficientemente.

Objetivo: Describir una nueva forma de implementar (el adecuado uso de) tratamientos focalizados en el trauma, por medio del modelo de rotación de terapeuta, en el cual un paciente es tratado por varios terapeutas.

Método: En este artículo, presentaremos dos ejemplos de trabajo con equipos de rotación de terapeutas en dos contextos de tratamiento para los TFT de pacientes con TEPT. Nosotros exploramos las experiencias con este modelo desde la perspectiva tanto del terapeuta como del paciente.

Resultados: Nuestros hallazgos fueron prometedores en el sentido de que este enfoque original redujo el temor de los terapeutas de proveer los TFT a los pacientes con TEPT, incrementó la disposición percibida sobre los TFT, y disminuyó el comportamiento de evitación en las sesiones de los TFT, conllevando posiblemente a una mejor implementación de los TFT. Adicionalmente, la relación terapéutica fue evaluada por los pacientes como buena, incluso por aquellos pacientes con estilos de apego inseguro.

Conclusiones: Nosotros sugerimos que la rotación de terapeuta es un enfoque original promisorio para mejorar la implementación de los TFT para TEPT.

治疗师轮换：在PTSD中实施创伤中心疗法的创新方法

背景：用于PTSD患者的创伤中心治疗（TFT）非常有效，然而治疗师却没有对其充分使用。

目的：描述一种通过使用治疗师轮换模型来实施（充分使用）创伤中心疗法的新方法，在这种模型中一名患者由多位治疗师治疗。

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Relación terapéutica; tratamiento focalizado en el trauma; tratamiento intensivo; rotación de terapeutas; Exposición Prolongada; EMDR; diseminación; implementación

关键词

治疗关系; 以创伤为中心的疗法; 强化治疗; 治疗师轮换; 延长暴露; EMDR; 传播; 实施

HIGHLIGHTS

- In therapist rotation, trauma-focused treatment (TFT) is provided by more two or more therapists, who rotate.
- This study presents a promising new model to enhance implementation of TFT.
- The model helps therapists to apply TFT more often.
- Patients experience adequate therapist relationships.

方法：在这篇文章中，我们将呈现治疗师轮换团队合作的在两个治疗情景下对PTSD患者进行TFT治疗的两个示例。我们从治疗师和患者的角度探索了这个模型。

结果：我们的研究结果令人鼓舞，因为这些新颖的方法减少了治疗师对于向PTSD患者提供TFT的恐惧，增加了对TFT的感知准备度，并减少了TFT中的回避行为，可能导致更好地实施TFT。此外，包括不安全依恋类型的患者在内，患者评定的治疗关系良好。

结论：我们认为治疗师轮换模型是有希望对治疗PTSD的TFT进行改进的新方法。

1. Introduction

Despite the effectiveness of trauma-focused treatments (TFTs) for post-traumatic stress disorder (PTSD) (Watts et al., 2013), these treatments are underused in clinical practice, even among trained clinicians (Becker, Zayfert, & Anderson, 2004; Hipol & Deacon, 2013). For instance, in one study it was shown that prolonged exposure (PE) was hardly used by therapists in the USA (Becker et al., 2004), a finding that was replicated in Europe for both PE and eye movement desensitization and reprocessing (EMDR) (van Minnen, Hendriks, & Olff, 2010). Many therapists feel uncomfortable in directly addressing traumatic memories and evoke high levels of fear in the treatment sessions (Becker et al., 2004; Grimmatt & Galvin, 2015).

It is known that not only patient-related characteristics, such as comorbidity (Becker et al., 2004; van Minnen et al., 2010), but also therapist-related factors, are strongly related to the underuse of TFTs (Harned, Dimeff, Woodcock, & Contreras, 2013; Hundt, Harik, Barrera, Cully, & Stanley, 2016; Laska, Smith, Wislocki, Minami, & Wampold, 2013), such as therapists' negative beliefs or expectations about the application of TFT (N. R. Farrell, Deacon, Kemp, Dixon, & Sy, 2013; Meyer, Farrell, Kemp, Blakey, & Deacon, 2014; van Minnen et al., 2010) or therapists' own anxiety sensitivity (Meyer et al., 2014), indicating that some therapists may simply be afraid to conduct this type of therapy. In addition to these hesitations to start a TFT, during the TFTs some therapists drift from the protocol (Waller, 2009) or deliver their (exposure) treatment in a suboptimal way, for instance by using anxiety-diminishing techniques (Hipol & Deacon, 2013), avoiding encouraging patients to carry out exposure exercises that elevate high levels of anxiety, or avoiding the application of (therapist-assisted) exposure in vivo during the treatment sessions (N. R. Farrell et al., 2013; Hipol & Deacon, 2013). Of note, therapists' fears mimic the fears that patients display when undergoing exposure. PTSD patients fear that during TFT they will be overwhelmed by anxiety, and that this will lead to negative outcomes (e.g. 'going crazy' or not being able to function normally (de Kleine, Hendriks, Becker, Broekman, & van Minnen, 2017; Foa & Kozak, 1986)). Therapists' fears include the fear

that patients may deteriorate as a result of the emotions evoked by the trauma-focused sessions or that TFT might harm patients (Becker et al., 2004; Deacon et al., 2013; Grimmatt & Galvin, 2015). An interesting study in this regard showed that (novice) therapists showed high levels of stress, both physiologically (cortisol) and psychologically, at the beginning of an exposure in vivo session with an anxiety-disordered patient, and these stress levels decreased both within and across three exposure sessions (Schumacher, Betzler, Miller, Kirschbaum, & Ströhle, 2017). This study illustrates that, analogously with anxiety-disordered patients, in order to overcome their own fears, hesitant (anxious) therapists may themselves be in need of exposure to their feared situations (performing a TFT session).

One commonly used way to implement TFT in clinical practice, and to counter therapists' negative beliefs, is to train therapists in applying TFT techniques. Indeed, in several studies it has been shown that training resulted in fewer beliefs about the potential harmful effects of exposure therapy (Deacon et al., 2013; Harned et al., 2014; Ruzek et al., 2016; van den Berg et al., 2016) or EMDR (D. Farrell & Keenan, 2013), but it is unclear whether these more positive beliefs indeed translate to more (adequate) use of these treatments (Gray, Elhai, & Schmidt, 2007). In addition, following on from this training, therapists may need support or supervision so that the need for exposure to their own feared situations, i.e. performing trauma-focused sessions, can be addressed. In this way, therapists themselves can experience the safety of this treatment, thereby overcoming their negative beliefs or expectations about exposure. However, supervision is not always easily available in every work setting, or is too costly or time-consuming (D. Farrell & Keenan, 2013; Gray et al., 2007), limiting the opportunities to practise TFT sessions in clinical practice.

To overcome these kinds of implementation-related problems, we developed a new way of implementing (the adequate use of) TFTs, using a therapist rotation model. In thinking about countering implementation problems of TFTs, the focus is on training and coaching individual therapists who work on a one-by-one basis with a particular patient. In this new proposed therapist rotation model, however, PTSD patients are treated by more than one therapist, and the therapists rotate

between patients during the treatment, each therapist providing one or more sessions per patient. This rotation model differs from therapy in which two or more therapists are involved because of 'practical reasons', for instance because the original appointed therapist switches jobs, or is absent owing to sickness or a leave of absence. It also differs from working in a multidisciplinary team, as is commonly used in many inpatient treatment programmes, in which a team of different professionals work on the treatment goals of a patient, each with different interventions and different treatment methods. Instead, in a therapist rotation team, two or more therapists of the same profession work systematically together with a patient using one specific intervention. By using a therapist rotation model, we reasoned, therapists are more likely to start TFTs, because they can share the responsibility for the (complex) patient with other therapists in the team. In addition, by working in a team, therapist drift and therapists' avoidance behaviour can more easily be prevented, for instance because colleagues keep each other 'on track' and feel shared responsibility in case exposure leads to negative outcomes. By actually performing TFTs, therapists can 'safely' learn by experience that their fears, for example that patients become emotionally overwhelmed during TFT sessions, are not realistic. This exposure-for-therapists model is, in a way, comparable with patients performing therapist-assisted exposure exercises as a first step in overcoming their fears. After working in a therapist rotation team with several (complex) patients, therapists may have overcome their fears and, as a result, are more likely to adequately provide TFT individually.

To the best of our knowledge, thus far a therapist rotation model has never been used for the treatment of PTSD patients. We found two other models that used alternating therapists. The first model was described under the name of 'multiple therapy', defined as a 'specific joint treatment of a patient by two or more therapists' (Langegger, 1990). Another study described a specific therapist rotation model, which was successfully used in the intensive treatment of patients with alcohol dependence (Krampe & Ehrenreich, 2012; Krampe et al., 2004). Both models were mainly implemented to prevent interpersonal dependency on individual therapists and overtaxing of therapists. The presented therapist rotation model for the treatment of PTSD, however, is placed in the context of enhancing implementation of TFT.

We will describe two examples of working with a therapist rotation team in the treatment of PTSD. Our primary goal was to introduce this therapist rotation model, and to describe two examples of

therapist rotation models that are currently used for the treatment of PTSD. Our second goal was to explore whether working in a therapist rotation model is likely to contribute to a better delivery of TFT. We were mainly interested in whether therapists, after working in a rotation team, would show more readiness to start with TFT as an individual therapist, and were more able to stick to protocol and diminish avoidance behaviour during TFT. Lastly, we explored whether this therapist rotation model is acceptable to PTSD patients. Granted that a good working alliance is important for successful TFT (Capaldi, Asnaani, Zandberg, Carpenter, & Foa, 2016; Cloitre, Chase Stovall-McClough, Miranda, & Chemtob, 2004; Keller, Zoellner, & Feeny, 2010), we were interested in whether patients were able to develop an adequate working alliance with the therapists in this treatment rotation model. Especially because attachment problems may be present along with PTSD symptoms (Karatzias et al., 2018), a clinically relevant question is whether people with attachment problems are able to build adequate therapeutic alliances with the different therapists in the therapist rotation model.

2. Example 1

2.1. Therapist rotation during intensive PE treatment

2.1.1. Treatment programme

In this outpatient treatment programme, provided by Overwaal, Centre of Expertise for Anxiety Disorders, OCD and PTSD, PTSD patients ($N = 73$) received three 90-minute individually administered prolonged exposure sessions (including imaginal and in vivo exposure) per day during four days within one week (total of 12 sessions). After the intensive phase, patients received four regular weekly booster exposure sessions. The majority of the patients had suffered multiple childhood traumas, including childhood sexual abuse (71.2%) and childhood physical abuse (63%), and 93.2% had one or more comorbid disorder. This patient population thus represented a patient population in which therapists have shown to be hesitant to use exposure therapy (van Minnen et al., 2010). The effect size of the treatment was high [pre-post Cohen's $d = 1.21$; PTSD symptoms severity measured with the Clinician Administered PTSD Scale (CAPS IV) (Blake et al., 1995)]. None of the patients dropped out during the intensive phase, and 5% of the patients dropped out during the booster phase. The specific details on the population and treatment effects are reported elsewhere (Hendriks, Kleine, Broekman, Hendriks, & Minnen, 2018).

Intensive phase:

| Day | 1 | 2 | 3 | 4 |
|-----------|------|------|------|------|
| Session 1 | Th A | Th D | Th B | Th A |
| Session 2 | Th B | Th C | Th D | Th A |
| Session 3 | Th C | Th A | Th E | Th D |

Weekly sessions:

| | |
|-----------|------|
| Booster 1 | Th D |
| Booster 2 | Th A |
| Booster 3 | Th E |
| Booster 4 | Th A |

Figure 1. Example of therapist rotation scheme (Example 1).

2.1.2. Therapist rotation

The sessions, both in the intensive phase and in the booster phase, were provided by different therapists who rotated between patients during the treatment. In Figure 1, we present an example of how therapists rotated during the treatment of one patient. For this particular patient, five therapists were involved in the treatment. For other patients, the number of therapists could vary between four and six. During the intensive treatment phase, each day, between sessions 1 and 2, and between sessions 2 and 3, the two scheduled therapists met face to face for 15 minutes, to inform each other about the specifics of the previous session and make plans for the next session. In addition, information transfer between all other

sessions took place in written form, using a structured patient file. Twice a week, the complete therapist team met face to face for half an hour to discuss all patients receiving treatment.

2.1.3. Therapist rotation from a therapist perspective

All therapists ($N = 21$) in the therapist rotation team answered several questions about their experiences regarding working in a therapist rotation team. The mean duration of working in a therapist rotation team was 21 months (range 9–72 months), and most of them had several years of clinical experience (mean 3.4 years, range 0–15 years) in treating PTSD patients.

In Table 1, the percentages are presented of the answers of therapists to yes/no questions about the effects of being part of a therapist rotation team when implementing TFTs. The large majority indicated that as a result of working in this therapist rotation team they would be more likely to start TFT as an individual therapist, that they learned to adhere to the treatment protocol, and that they showed less avoidance during TFT sessions. In general, their mean rating of satisfaction with working within a therapist rotation team on a 1–10 scale was 9.1 (SD 0.6), indicating that they were very satisfied using this model. Also rated on a 1–10 scale, most therapists indicated that they felt a moderate to good therapeutic relationship with individual patients [mean 8.05 (SD 1.16), range 6–10].

2.1.4. Therapist rotation from a patient perspective

A therapeutic relationship is usually defined and measured as a relationship between a patient and his or her individual therapist. We were interested

Table 1. Proportion of therapists responding in the affirmative when asked about their experiences of working in a therapist rotation team (Yes/No questions).

| | Overwaal | PSYTREC |
|---|--------------|--------------|
| | ($N = 21$) | ($N = 27$) |
| | Yes | Yes |
| <i>Readiness to start TFT</i> | | |
| As an individual therapist, in the future I would be more likely to treat PTSD patients with TFT, even when there is severe comorbidity | 95.2% | 91.5% |
| As an individual therapist, in the future I would be more likely to consider the patient ready for trauma-focused treatment | 90.5% | 92.6% |
| I now treat PTSD patients that I would not have dared to treat on an individual basis | 95.2% | 85.2% |
| My harm expectancies about trauma-focused treatment of PTSD have been violated | 85.7% | 88.0% |
| <i>Less therapist drift and less avoidance</i> | | |
| I now adhere more to the protocol | 90.5% | 81.5% |
| I now don't drift away from the treatment plan | 90.5% | 88.9% |
| I now dare to more firmly address avoidance behaviour or press ahead in a trauma-focused session | 90.5% | 92.4% |

TFT, trauma-focused treatment; PTSD, post-traumatic stress disorder.

in the question of whether patients could also build a therapeutic relationship with more than one therapist. To answer this question, following the final treatment session, all patients filled in the Working Alliance Inventory (WAI), short version (Horvath & Greenberg, 1989; Tracey & Kokotovic, 1989), a commonly used and reliable scale to measure the quality of the therapeutic relationship operationalized as the working alliance. Because more than one therapist was involved in the treatment, for each of the 12 items we replaced the word ‘therapist’ with ‘therapist team’. The WAI was included at a later date during the course of the study. Therefore, the WAI data were not available for some patients. The mean score was 75.38 (SD 6.12, range 63–84, $N = 52$).¹ When compared with other studies that used TFT with an individual therapist (Capaldi et al., 2016; Keller et al., 2010), our findings were highly comparable [total WAI scores 75.38 (our sample) vs 75.70 and 65.37, respectively, in the other studies], indicating that PTSD patients can form working alliances with more than one therapist during TFT. At pretreatment, we administered the Relationship Questionnaire (Bartholomew & Horowitz, 1991), an instrument to measure attachment patterns. This measure was also included while the study was ongoing, and data for only 43 patients were available. To study the influence of attachment problems on the working alliances, we compared the WAI scores of patients with a secure attachment style ($N = 15$) with patients with an insecure attachment style (fearful, dismissive-avoidant, or preoccupied attachment style) ($N = 28$). A t -test showed no significant differences between the two groups [$t(41) = .416$, $p = .68$], indicating that even patients with attachment problems were able to build therapeutic relationships with a team of alternating therapists.

3. Example 2

3.1. Therapist rotation during intensive TFT combining PE and EMDR

3.1.1. Treatment programme

In this inpatient treatment programme, provided by PSYTREC, a mental health organization that specializes in PTSD treatment, PTSD patients received an 8 day intensive TFT programme, provided within 11 days. This treatment programme consisted of

two TFT sessions (PE and EMDR) of 90 minutes each day (in total 16 sessions). In addition to these two TFT sessions, patients were involved in an intensive sports programme, and participated in group psycho-education. In 2016, 347 patients were treated and followed in an open study. The majority of patients had suffered (childhood) sexual abuse (74.4%) or physical abuse (78.4%), and a minority were veterans suffering from war-related trauma (10.1%). The majority of patients (91.2%) had one or more comorbid disorders. As in the patient population of Example 1, this patient population represented patients for whom trauma therapists would normally be hesitant to apply TFT. The effect size of the treatment was high [CAPS-IV (Blake et al., 1995) pre–post Cohen’s $d = 1.64$], and dropout during treatment was 2.3%. The specific details about the population and treatment effects are reported elsewhere (Van Woudenberg et al., 2018). Because our evaluation of the therapist rotation was introduced during the second half of 2016, we have data available for 195 patients, who answered a number of questions on their final day of treatment. All of the approached patients responded.

3.1.2. Therapist rotation

The treatment sessions were provided by different therapists who rotated during the treatment. In Figure 2, we present an example of how therapists rotated during the treatment of one patient. For this particular patient, eight therapists were involved in the treatment. For other patients, the number of therapists could vary between six and 16. On each treatment day, between sessions 1 and 2, all therapists met face to face in a team to inform each other about the specifics of the previous session for all patients who were in treatment that week (discussion lasting for about 5 minutes per patient). In addition, information transfer between sessions took place in written form, using a structured patient file.

3.1.3. Therapist rotation from a therapist perspective

All therapists ($N = 27$, one missing) on the rotating team (Example 2) answered several questions about their experiences regarding working in a therapist rotation team. The mean duration of working in a therapist rotation team was 9 months (range 2–16 months), and they had several years of clinical

| Day | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|-----------|------|------|------|------|------|------|------|------|
| Session 1 | Th A | Th C | Th E | Th A | Th B | Th H | Th E | Th B |
| Session 2 | Th B | Th D | Th F | Th G | Th D | Th A | Th F | Th H |

Figure 2. Example of therapist rotation scheme (Example 2).

experience (mean 7.15 years, range 0–15 years) in treating PTSD patients before they came to work in this clinic.

In Table 1, the percentages are presented of the responses of therapists to yes/no questions about their views regarding the effects of being part of a therapist rotation team on implementation of TFTs. Comparable with the therapists in Example 1, the large majority indicated that as a result of working in this therapist rotation team they would be more likely to start TFT as an individual therapist, and that they had learned to more adequately follow the treatment protocol and showed less avoidance during TFT sessions.

In general, the mean rating of satisfaction with working in a therapist rotation team on a 1–10 scale was 8.9 (*SD* 1.0), indicating that they were very satisfied with this working model. The majority (85%) indicated that when treating PTSD, they would rather work in a therapist rotation team than on an individual basis. Also rated on a 1–10 scale, most therapists indicated that they felt that a moderate to good therapeutic relationship had been established with individual patients [mean 7.59 (*SD* 1.01), range 5–10].

3.1.4. Therapist rotation from a patient perspective

At post-treatment, patients filled in a survey with several questions about their experiences with therapist rotation during treatment. On the question: ‘Would you have preferred being treated by one therapist instead of a rotating team of therapists?’, only 14% of the patients answered ‘yes’. The second question was: ‘Did you have a good relationship with the team of therapists?’ On a scale ranging from 0 (no relationship at all) to 4 (very good relationship), 62% of the patients reported a good or very good relationship with the team of therapists, while only 8.3% reported no or little therapeutic relationship.

4. Discussion

In this article we presented the therapist rotation model for delivering TFT for PTSD patients. Our goal was to present this therapist rotation model by describing two examples. In addition, we explored whether this therapist rotation model could be helpful in better implementation of TFT by reducing therapists’ negative concerns over starting TFT, therapist drift, and avoidance behaviour. We also explored whether this therapist rotation model is acceptable to PTSD patients, especially with respect to the development of a good therapeutic relationship.

4.1. Therapist perspective

Most therapists indicated that they, as an individual therapist, would consider patients in the future more

often as ready to start with TFT. Therapists’ perception of patient readiness may be an important theme in the implementation of TFTs (Zubkoff, Carpenter-Song, Shiner, Ronconi, & Watts, 2016). What is more, therapists indicated that – through the clinical experience they had gained by working in the team – their negative beliefs about treating PTSD patients had been violated, and they would be more likely to apply TFTs now or in the future as an individual therapist. Another finding was that therapists reported that they were less likely to drift from the treatment protocol and were less fearful about pressing ahead in TFT sessions. Taken together, although our results are very explorative in nature, from a therapist perspective, this therapist rotation model might indeed be seen as exposure therapy for therapists to their own feared situation, i.e. treating PTSD patients with TFTs. This suggests that gaining more clinical experience in the safe context of a rotating team may lead to better implementation of TFT in clinical practice. This finding is also in line with EMDR therapists reporting that a so-called buddy would help them in the implementation of EMDR in their clinical practices (Grimmett & Galvin, 2015) and a study showing that contextual factors, such as a shared trauma-focused team vision, are related to more use of TFTs (Sayer et al., 2017).

4.2. Patient perspective

Patients were quite positive about the therapist rotation model. In Example 2, the majority indicated that they preferred being treated by a rotating team instead of an individual therapist, and indicated a rather good therapeutic relationship with the therapists as a team. In Example 1, the magnitude of this therapeutic relationship as indicated by patients was highly comparable with studies that measured this relationship in the case of an individual therapist (Capaldi et al., 2016; Keller et al., 2010). What is more, even patients with attachment problems were able to establish a good working alliance with more than one therapist, indicating that attachment problems do not stand in the way of working with multiple therapists during therapy. Some argue that in the case of childhood abuse the patient needs to repair this interpersonal disturbance, and that a positive therapeutic relationship can play an important role in that process (Cloitre et al., 2004). Building positive relationships with more than one therapist may be even more powerful in this regard, and can potentially be regarded as an increase in dose of the therapeutic relationship (Krampe et al., 2004). What is more, from a cognitive behavioural point of view, this therapist rotation model provides a good opportunity for patients to learn new associations in a variety of therapeutic contexts, i.e. different therapists and different therapy rooms, which may strengthen these

learning experiences (Craske et al., 2008; Knowles & Olatunji, 2018). However, these results must be interpreted with caution, given the explorative nature of our study.

4.3. Limitations and future directions

Although we have now treated more than 200 patients using this new therapist rotation model, with positive evaluations, we did not perform a controlled study comparing treatment results and clinical experiences for patients who were treated by an individual therapist versus patients treated by a therapist rotation team. Our data are very explorative in nature, and controlled studies are needed in the future to draw firm conclusions, and to study whether the more positive beliefs about TFT of therapists gained by working in a therapist rotation team translate to better implementation, especially because the level of previous training in providing TFTs differed between therapists. A related limitation of our data is that the therapists presented in this article may be a selected and biased group. Because some of the therapists chose to work in a clinic using the therapist rotation team, they would have been more likely to provide TFT for severely affected PTSD patients anyway, and therefore reported more positive experiences with the rotating team. The same limitation holds for patients: it is impossible to rule out the possibility that patients who were not attracted to the therapist rotation model may not have applied for our treatments. Also, we cannot exclude that demand characteristics played a role in participants' responses.

Another limitation is that in both examples we used an intensive form of TFT. Therefore, it is not clear whether our positive experiences with this therapist rotation team also generalizes to regular one-session-a-week treatments. However, in our treatment described in Example 1, we also generalized this working model to the weekly provided (booster) sessions without any problems. Clearly, patients and therapists were already used to working with this model during the intensive phase, but still, the results tentatively suggest that it is not impossible. Also, not every department has the possibility to work with a team of therapists for one patient. In most cases it will, however, be possible to work with at least two therapists for one patient. We believe that all the aforementioned advantages of working with more than one therapist may also hold up in that case, and that working with two therapists instead of one can also be helpful in achieving better implementation of TFTs. Future studies are, however, needed to confirm this assumption.

In conclusion, although this is the first explorative study, from a therapist perspective, working in a rotating therapist model instead of working as an individual therapist with (severe) PTSD patients

may be an innovative way to help overcome implementation problems of TFTs. The data from two clinical settings are promising in that these suggest that this novel approach reduced the therapists' fear of providing TFT to PTSD patients, increased perceived readiness for TFT, and decreased avoidance behaviour within TFT sessions. Therefore, for better implementation of TFT, alternating with colleagues during the treatment of one patient may be a valuable addition to the regular training methods, such as workshops, training, and supervision.

Note

1. In our study we used a Likert scale ranging from 1 to 5. In other studies a scale ranging from 1 to 7 is commonly used. To compare our results to previous findings, we recalculated our 1–5 total scores into 1–7 total scores.

Disclosure statement

No potential conflict of interest was reported by the authors.

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References

- Bartholomew, K., & Horowitz, L. M. (1991). Attachment styles among young adults: A test of a four-category model. *Journal of Personality and Social Psychology*, 61(2), 226–244.
- Becker, C. B., Zayfert, C., & Anderson, E. (2004). A survey of psychologists' attitudes towards and utilization of exposure therapy for PTSD. *Behaviour Research and Therapy*, 42(3), 277–292.
- Blake, D. D., Weathers, F. W., Nagy, L. M., Kaloupek, D. G., Gusman, F. D., Charney, D. S., & Keane, T. M. (1995). The development of a clinician-administered PTSD scale. *Journal of Traumatic Stress*, 8(1), 75–90.
- Capaldi, S., Asnaani, A., Zandberg, L. J., Carpenter, J. K., & Foa, E. B. (2016). Therapeutic alliance during prolonged exposure versus client-centered therapy for adolescent posttraumatic stress disorder. *Journal of Clinical Psychology*, 72(10), 1026–1036.
- Cloitre, M., Chase Stovall-McClough, K., Miranda, R., & Chemtob, C. M. (2004). Therapeutic alliance, negative mood regulation, and treatment outcome in child abuse-related posttraumatic stress disorder. *Journal of Consulting and Clinical Psychology*, 72(3), 411–416.
- Craske, M. G., Kircanski, K., Zelikowsky, M., Mystkowski, J., Chowdhury, N., & Baker, A. (2008). Optimizing inhibitory learning during exposure therapy. *Behaviour Research and Therapy*, 46(1), 5–27.

- de Kleine, R. A., Hendriks, L., Becker, E. S., Broekman, T. G., & van Minnen, A. (2017). Harm expectancy violation during exposure therapy for posttraumatic stress disorder. *Journal of Anxiety Disorders, 49*, 48–52.
- Deacon, B. J., Farrell, N. R., Kemp, J. J., Dixon, L. J., Sy, J. T., Zhang, A. R., & McGrath, P. B. (2013). Assessing therapist reservations about exposure therapy for anxiety disorders: The Therapist Beliefs about Exposure Scale. *Journal of Anxiety Disorders, 27*(8), 772–780.
- Farrell, D., & Keenan, P. (2013). Participants' Experiences of EMDR Training in the United Kingdom and Ireland. *Journal of EMDR Practice and Research, 7*(1), 2–16.
- Farrell, N. R., Deacon, B. J., Kemp, J. J., Dixon, L. J., & Sy, J. T. (2013). Do negative beliefs about exposure therapy cause its suboptimal delivery? An experimental investigation. *Journal of Anxiety Disorders, 27*(8), 763–771.
- Foa, E. B., & Kozak, M. J. (1986). Emotional processing of fear: Exposure to corrective information. *Psychological Bulletin, 99*(1), 20–35.
- Gray, M. J., Elhai, J. D., & Schmidt, L. O. (2007). Trauma professionals' attitudes toward and utilization of evidence-based practices. *Behavior Modification, 31*(6), 732–748.
- Grimmett, J., & Galvin, M. D. (2015). Clinician experiences with EMDR: Factors influencing continued use. *Journal of EMDR Practice and Research, 9*(1), 3–16.
- Harned, M. S., Dimeff, L. A., Woodcock, E. A., & Contreras, I. (2013). Predicting adoption of exposure therapy in a randomized controlled dissemination trial. *Journal of Anxiety Disorders, 27*(8), 754–762.
- Harned, M. S., Dimeff, L. A., Woodcock, E. A., Kelly, T., Zaverchnik, J., Contreras, I., & Danner, S. M. (2014). Exposing clinicians to exposure: A randomized controlled dissemination trial of exposure therapy for anxiety disorders. *Behavior Therapy, 45*(6), 731–744.
- Hendriks, L., De Kleine, R. A., Broekman, T. G., Hendriks, G.-J., & Van Minnen, A. (2018). Intensive prolonged exposure therapy for chronic PTSD patients following multiple trauma and multiple treatment attempts. *European Journal of Psychotraumatology, 9*(1), 1425574.
- Hipol, L. J., & Deacon, B. J. (2013). Dissemination of evidence-based practices for anxiety disorders in Wyoming: A survey of practicing psychotherapists. *Behavior Modification, 37*(2), 170–188.
- Horvath, A. O., & Greenberg, L. S. (1989). Development and validation of the Working Alliance Inventory. *Journal of Counseling Psychology, 36*(2), 223–233.
- Hundt, N. E., Harik, J. M., Barrera, T. L., Cully, J. A., & Stanley, M. A. (2016). Treatment decision-making for posttraumatic stress disorder: The impact of patient and therapist characteristics. *Psychological Trauma: Theory, Research, Practice, and Policy, 8*(6), 728–735.
- Karatzias, T., Shevlin, M., Hyland, P., Brewin, C. R., Cloitre, M., Bradley, A., ... Roberts, N. P. (2018). The role of negative cognitions, emotion regulation strategies, and attachment style in complex post-traumatic stress disorder: Implications for new and existing therapies. *British Journal of Clinical Psychology, 57*(2), 177–185.
- Keller, S. M., Zoellner, L. A., & Feeny, N. C. (2010). Understanding factors associated with early therapeutic alliance in PTSD treatment: Adherence, childhood sexual abuse history, and social support. *Journal of Consulting and Clinical Psychology, 78*(6), 974–979.
- Knowles, K. A., & Olatunji, B. O. (2018). Enhancing inhibitory learning: The utility of variability in exposure. *Cognitive and Behavioral Practice*. doi:10.1016/j.cbpra.2017.12.001
- Krampe, H., & Ehrenreich, H. (2012). Therapeutic alliance and multiple psychotherapy in the context of therapist rotation: Experiences with OLITA. *Neurology, Psychiatry and Brain Research, 18*(4), 137–152.
- Krampe, H., Wagner, T., Küfner, H., Jahn, H., Stawicki, S., Reinhold, J., ... Ehrenreich, H. (2004). Therapist rotation—A new element in the outpatient treatment of alcoholism. *Substance Use & Misuse, 39*(1), 135–178.
- Langegger, F. (1990). Multiple psychotherapie: Wie viele Therapeuten braucht der Mensch? *Schweizer Archiv Für Neurologie Und Psychiatrie, 141*(6), 557–566.
- Laska, K. M., Smith, T. L., Wislocki, A. P., Minami, T., & Wampold, B. E. (2013). Uniformity of evidence-based treatments in practice? Therapist effects in the delivery of cognitive processing therapy for PTSD. *Journal of Counseling Psychology, 60*(1), 31–41.
- Meyer, J. M., Farrell, N. R., Kemp, J. J., Blakey, S. M., & Deacon, B. J. (2014). Why do clinicians exclude anxious clients from exposure therapy? *Behaviour Research and Therapy, 54*, 49–53.
- Ruzek, J. I., Eftekhari, A., Rosen, C. S., Crowley, J. J., Kuhn, E., Foa, E. B., ... Karlin, B. E. (2016). Effects of a comprehensive training program on clinician beliefs about and intention to use prolonged exposure therapy for PTSD. *Psychological Trauma: Theory, Research, Practice, and Policy, 8*(3), 348–355.
- Sayer, N. A., Rosen, C. S., Bernardy, N. C., Cook, J. M., Orazem, R. J., Chard, K. M., ... Schnurr, P. P. (2017). Context matters: Team and organizational factors associated with reach of evidence-based psychotherapies for PTSD in the Veterans Health Administration. *Administration and Policy in Mental Health and Mental Health Services Research, 44*(6), 904–918.
- Schumacher, S., Betzler, F., Miller, R., Kirschbaum, C., & Ströhle, A. (2017). Habituation of stress in psychotherapists performing subsequent in vivo exposures—A case series. *Journal of Psychotherapy Integration, 27*(2), 218–224.
- Tracey, T. J., & Kokotovic, A. M. (1989). Factor structure of the Working Alliance Inventory. *Psychological Assessment: A Journal of Consulting and Clinical Psychology, 1*(3), 207–210.
- van Den Berg, D. P., van der Vleugel, B. M., De Bont, P. A., Thijssen, G., De Roos, C., De Kleine, R., ... van der Gaag, M. (2016). Exposing therapists to trauma-focused treatment in psychosis: Effects on credibility, expected burden, and harm expectancies. *European Journal of Psychotraumatology, 7*. doi:10.3402/ejpt.v7.31712
- Van Minnen, A., Hendriks, L., & Olf, M. (2010). When do trauma experts choose exposure therapy for PTSD patients? A controlled study of therapist and patient factors. *Behaviour Research and Therapy, 48*(4), 312–320.
- Van Woudenberg, C., Voorendonk, E., Bongaerts, H., Zoet, H., Verhagen, M., van Minnen, A., & De Jongh, A. (2018). *Combining prolonged exposure and EMDR: The effectiveness of an intensive treatment program for severe posttraumatic stress disorder (PTSD)*. Manuscript in preparation.
- Waller, G. (2009). Evidence-based treatment and therapist drift. *Behaviour Research and Therapy, 47*(2), 119–127.
- Watts, B. V., Schnurr, P. P., Mayo, L., Young-Xu, Y., Weeks, W. B., & Friedman, M. J. (2013). Meta-analysis of the efficacy of treatments for posttraumatic stress disorder. *The Journal of Clinical Psychiatry, 74*(6), e541–550.
- Zubkoff, L., Carpenter-Song, E., Shiner, B., Ronconi, J. M., & Watts, B. V. (2016). Clinicians' perception of patient readiness for treatment: An emerging theme in implementation science? *Administration and Policy in Mental Health and Mental Health Services Research, 43*(2), 250–258.