ナラティヴ・エクスポージャー・セラピー (Narrative Exposure Therapy) による複雑性PTSDの治療 - 日本における効果と適応の検討 -

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Narrative Exposure Therapy for the treatment of complex PTSD:
An examination of the effect and adaptation in Japan

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Chapter 1  An overview of narrative exposure therapy and the purposes of this paper

1.1 The purposes of this research

There are individuals who receive prolonged outpatient care at psychiatric hospitals or who cycle in and out of those hospitals, and those individuals may not respond to medications or counseling. Some of those individuals have been greatly impacted by psychological trauma (here, psychological trauma is denoted simply as “trauma”) in the past, and these individuals may have post-traumatic stress disorder (PTSD) along with their primary diseases. These individuals are emotionally labile, they are prone to self-harm and suicide attempts, and they seldom receive consistent treatment. These individuals suffer from impaired social or interpersonal skills for a number of years, they are deserted by family and providers of support, and they often must rely on social welfare. The context for this situation may involve various traumatic events experienced in ordinary life, such as domestic violence (DV), child abuse, bullying, suffering or perpetrating violence, being sexually assaulted, bereavement, and being the victim of a natural disaster. A single episode of trauma is seldom recounted in a clinical setting; instead, prolonged repeated traumatic experiences often lead to complex PTSD. Some people exhibit PTSD symptoms despite having never experienced any obviously traumatic experiences, and some people repeatedly suffer traumatic experiences due to sensory hypersensitivity as a result of a pervasive developmental disorder\(^{156}\). Untreated individuals may withdraw from their family and society; a number of those individuals probably have symptoms of trauma such as PTSD.

The social problems of child abuse and DV are increasing\(^7\). An individual can suffer harm and loss as a result of his or her trauma symptoms, the individual’s family and the community can be affected, and this can result in social insurance expenses. The burden of these expenses is a public health problem in Europe and the US as well as in Japan\(^{128}\). Moreover, global natural disasters are increasing as a result of climate change, and a volcanic eruption, earthquake, or tsunami can result in vast numbers of survivors with PTSD. Given these situations facing Japan, treatment of PTSD will be even more crucial.

One reason why this pressing issue has not been addressed is because the concept of PTSD is a relatively new one. Moreover, many therapies for PTSD take time to learn, and there is a definite dearth of therapists. Narrative Exposure Therapy (NET) is a short-term PTSD treatment therapy that is easy to learn, and NET was developed based on an activity common to all people, story-telling, or “narrating”\(^{131}\). NET is especially effective in treating complex PTSD due to prolonged, repeated traumatic experiences\(^{40}\). NET was developed by Schauer, Neuner, and Elbert in the
early 2000s to treat PTSD in refugees. There is a mountain of evidence that NET can treat complex PTSD suffered by refugees as a result of organized violence, such as a protracted civil wars or a conflict. NET combines exposure therapy and testimony therapy, and exposure therapy is the first-line treatment for PTSD. Over the past few years, evidence has indicated that NET is effective in treating complex PTSD in the general public, such as PTSD due to family violence. A new version of the NET manual indicates that it can be used to treat family violence as well as organized violence.

NET has proven effective for individuals in refugee camps or shortly after a conflict has ended. NET has a number of advantageous aspects: it draws on the powerful mechanisms of exposure and habituation, it involves emotion regulation through repeated down-regulation of heightened emotions, it involves meaning making, cognitive restructuring, and improved verbalization skills as a result of constructing one’s autobiographical history, it involves compensatory attachment (i.e. the client has someone—the therapist—carefully listen to him or her), the technique is easy for a therapist to learn, and the therapy has a low dropout rate. If evidence indicating that NET is effective in treating the public in routine clinical settings can be assembled, then NET could be a promising treatment with which to address the issues mentioned earlier. This paper surveys assembled evidence of NET’s effects and studies on its adaptation to the general public. This paper also describes the results of an attempt to conduct NET at a psychiatric hospital and a university counseling office in Japan. Furthermore, this paper examines NET’s effects on PTSD in the general public and its adaptation in Japan.

[Omitted]
Chapter 2  A survey of the previous literature and the current state of research

[Omitted]
Chapter 3  NET's effectiveness in treating PTSD in the general public

3.1 An overview of Chapter 3
[Omitted]

3.2 Methods
3.2.1 Participants
The current study involved 14 participants (Table 6). The participants were seen in outpatient psychiatric care or at a university counseling office in Japan. Three of the participants were hospitalized while receiving therapy. All of the participants were Japanese and native speakers of Japanese. Participants consisted of 13 females and 1 male ranging in age from 22-65 years of age (mean age: 38.14 years). Eleven of the participants were diagnosed with PTSD by a physician or based on the Clinician-Administered PTSD Scale (CAPS). One participant had a CAPS score indicating PTSD, but events experienced by that individual did not meet Criterion A, so the participant was diagnosed with adjustment disorder. Two participants were deemed to have certain elements of complex PTSD due to traumatic experiences in the past based on their scores on the Impact of Event Scale-Revised (IES-R) and an interview. NET was suggested to individuals who were receiving outpatient psychiatric care and who were considered eligible for NET. Visitors to a university counseling office who were aware that NET was offered and who were eligible for the therapy were also able to receive NET.

Exclusion criteria were severe mental illness including; DID, schizophrenia, or a developmental disorder. In addition, those who were pregnant, whose safety could not be assured, who lacked motivation, who had diminished consciousness or alertness (overly sedated by large doses of medications, substance abuse, etc.), who lacked the ability to converse (hallucinatory/delusional state, frequent dissociative symptoms, aphasia, mental retardation, etc.), or who had such a vulnerable ego that they were unable to recount their life story were excluded.

In participants, comorbidities included depression, bipolar disorder, borderline personality disorder (BPD), emotionally unstable personality disorder (including BPD in ICD-10 F60.31), alcoholism, eating disorders, complicated grief, dissociative disorders, adjustment disorder, and fibromyalgia.

Types of traumatic experiences included prolonged child abuse (mental, physical, or sexual), neglect (including complete parental abandonment), attachment trauma, discrimination between siblings, witnessing DV or suffering DV, being bullied, being sexually assaulted, being a victim of crime, witnessing a catastrophe, traffic accident, traumatic bereavement, incarceration, being betrayed, and having an abortion. All of the participants had markedly impaired self-regulation and complex PTSD due to prolonged, repeated trauma. The psychiatric hospital that conducted
NET was a psychiatric hospital with around 450 beds that provided psychiatric emergency services. The 12 participants who were seen at the hospital had received care for 0-23 years at the start of NET, and they had been admitted 0-33 times. Thus, these participants had relatively severe complex PTSD.

Table 6 [Omitted]

3.2.2 Ethical considerations

In accordance with the Helsinki Declaration and the Code of Ethics for Clinical Research, every effort was made to protect the privacy of participants through confidentiality and to maintain their anonymity.

[Omitted]

All of the participants were adults. The treatment was explained to all potential participants beforehand, and their written consent was deemed to indicate that they understood the treatment. When potential participants were providing consent, they were also informed that results of the treatment might be summarized and published in a paper to help develop treatments for trauma. In addition, participants were assured that they were free to continue or discontinue therapy, and efforts were made to provide appropriate feedback after therapy to avoid any misunderstandings. This study was approved by the ethics committee of Konan University.

3.2.3 Clinicians performing treatment

Therapy was conducted by a clinical psychologist with clinical experience who had been trained in NET. At the start, all sessions were supervised by an expert in NET. Once several participants had undergone sessions, subsequent sessions were supervised as needed.

3.2.4 Procedure

After the start of counseling, a rapport was built, questionnaires were administered, an appraisal was made, psychoeducation was conducted, and normalization was achieved. Immediately afterwards, 10 of the 14 participants immediately began receiving NET. Environmental manipulation or strategies to relieve symptoms were required beforehand for 4 participants (C, D, E, and M) (Table 7).

Two participants (F and G) received therapy at a university counseling office while 12 received it as part of outpatient psychiatric care. Of those 12 participants, 3 (E, H, and N) were hospitalized during the therapy. Depending on the framework at the counseling office or the hospital, a NET session was scheduled for 80 to 120 minutes. In actuality, however, each session ended at an appropriate stopping point depending on what was being discussed in the session. Sessions were conducted once
to twice a week. The number of sessions ranged from 8 to 46 (mean: 27.35 sessions) depending on the length of the participant's life story and the number of traumatic events he or she experienced.

3.2.5 Assessment measures
Several assessment scales were used in this study. The IES-R and the CAPS were used to ascertain NET's effects on PTSD, the Zung Self-Rating Depression Scale (SDS) was used to ascertain the therapy's effects on depression, and the Dissociative Experiences Scale (DES) was used to ascertain the therapy's effects on dissociative symptoms. Based on the timing of administration of scales in previous studies, scales were administered at 5 time points: prior to therapy and 2 weeks, 3 months, 6 months, and 1 year after therapy.

3.2.6 Data analysis and statistics
Data were analyzed using the statistical software SPSS ver 22.0 for windows, and all data are expressed as the mean and standard deviation (SD). Cohen's $d$ formula was used to calculate the within-subject effect size. To compile all of the data at 5 time points - prior to NET and 2 weeks, 3 months, 6 months, and 1 year after NET - all of the data were tested using one-way repeated-measures analysis of variance (ANOVA). Afterwards, values prior to NET and values obtained at each time point were analyzed using a paired t-test (Bonferroni correction). In addition, all values before and after each time point (including missing values) were analyzed using a paired t-test. Mean DES scores did not follow a normal distribution, so all scores were tested with the nonparametric Friedman test. Values before and after each time point were analyzed using a Wilcoxon signed-rank test (Bonferroni correction).

3.3. Results
3.3.1 Score on a scale to assess PTSD symptoms
Analysis of IES-R scores (Table 8) indicated that the mean score prior to NET was 57.1 points and that 1 year afterwards was 23.2 points for 10 participants. The effect size (Cohen's $d$) was 2.972. NET markedly relieved PTSD symptoms.
Analysis of CAPS scores (Table 9) indicated that the mean score prior to NET was 73.8 points and that 1 year afterwards was 19.8 points for 6 participants. The effect size (Cohen’s d) was 2.587. NET markedly relieved PTSD symptoms. This finding agreed with the IES-R scores mentioned earlier, and it also corroborates results described in the literature.

### Table 9 Effect size of the CAPS score

<table>
<thead>
<tr>
<th>Data</th>
<th>P-value</th>
<th>Effect size for all</th>
<th>P after NET vs. P before NET</th>
<th>Effect size Cohen’s d</th>
<th>P after NET vs. P before NET</th>
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<tr>
<td>CAPS (n=6)</td>
<td>0.000</td>
<td>0.716</td>
<td>a</td>
<td></td>
<td></td>
</tr>
<tr>
<td>prior to NET</td>
<td>73.8 ± 22.5</td>
<td></td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2 weeks after</td>
<td>28.5 ± 14.9</td>
<td>0.007</td>
<td>2.376</td>
<td>b</td>
<td>0.002</td>
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<tr>
<td>3 months after</td>
<td>28.8 ± 22.9</td>
<td>0.080</td>
<td>1.984</td>
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<td>6 months after</td>
<td>24.7 ± 21.4</td>
<td>0.065</td>
<td>2.239</td>
<td>b</td>
<td>0.016</td>
</tr>
<tr>
<td>1 year after</td>
<td>19.8 ± 19.1</td>
<td>0.028</td>
<td>2.587</td>
<td>b</td>
<td>0.007</td>
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</tbody>
</table>

Data expressed as: mean ± sd.
P-value: a, One-way ANOVA; b, paired t test (Bonferroni correction).

3.3.2 Score on a scale to assess depressive symptoms

Analysis of SDS scores (Table 10) indicated that the mean score prior to NET was 54.3 points and that 1 year afterwards was 43.3 points for 9 participants. The effect size (Cohen’s d) was 0.953. The effect size was large, indicating that depression was decreased considerably. Unlike the scores on the PTSD scales, depressive symptoms were only slightly decreased for up to 6 months after NET. This is presumably because one faces a great deal of loss while framing one’s life story. NET’s effects on depression take several months to appear, but they are substantial.
3.3.3 Score on a scale to assess dissociative symptoms

The DES was administered starting with Participant 5, so the scale was administered to 10 participants.

Analysis of mean DES scores (Table 12) indicated that the mean score prior to NET was 22.1 points and that 1 year afterwards was 5.7 points. The effect size ($r$) was $-0.895$. NET markedly relieved dissociative symptoms.

### Table 12 Effect size of the DES score

<table>
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<th>Data</th>
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<th>P after NET</th>
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<td>prior to NET</td>
<td>0.003</td>
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<td>-</td>
<td>-</td>
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<td>2 weeks after</td>
<td>0.137</td>
<td>-0.801</td>
<td>d</td>
<td>0.034</td>
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<tr>
<td>3 months after</td>
<td>0.072</td>
<td>-0.895</td>
<td>d</td>
<td>0.018</td>
</tr>
<tr>
<td>6 months after</td>
<td>0.072</td>
<td>-0.895</td>
<td>d</td>
<td>0.018</td>
</tr>
<tr>
<td>1 year after</td>
<td>0.072</td>
<td>-0.895</td>
<td>d</td>
<td>0.018</td>
</tr>
</tbody>
</table>

Data expressed as: mean ± sd.
P-value: a, One-way ANOVA; b, paired t test (Bonferroni correction).

3.3.4 A discussion of NET’s effects on PTSD, depression, and dissociation

NET considerably alleviated the 3 key symptoms of PTSD and thus markedly relieved PTSD symptoms. Symptoms decreased markedly soon after therapy and subsequently worsen somewhat. Symptoms often then decrease further 1 year after therapy. This temporary worsening of symptoms was caused by external strain, e.g. contact with a perpetrator or bereavement over the death of a close relative. The potential effects of processing in the brain need to be verified in a future study. Another
cause of temporarily worsening symptoms may have been because the positive experience of having someone (a therapist) listen attentively ended when NET ended. The therapeutic elements of NET are examined in detail in Chapter 4.

NET’s effects lasted for up to 1 year after therapy, and this finding corroborates the results of previous studies. Scores were obtained from Participant A when the IES-R was administered 2 and a half years after therapy. Based on those scores, NET’s effects may have lasted over 1 year. This suggests the usefulness of a longer follow-up.

The fact that PTSD symptoms were relieved or not exacerbated by NET in all of the participants warrants attention. If individuals were motivated, then they safely underwent NET even if they had relatively severe complex PTSD as well as suicidal ideation and dissociative symptoms. Individuals with severe symptoms should be admitted to receive NET, but the therapy eliminates excessive anxiety over exposure to traumatic experiences. Participant L still had PTSD symptoms 1 year after NET since the participant’s sense of guilt remained. The NET manual has noted that a sense of guilt and shame causes challenging moments that we face when conducting NET. This agrees with the current findings.

NET had substantial effects on depression. NET had a marked effect on PTSD soon after therapy. In contrast, its effect on depression were not evident for up to 6 months after NET. This is presumably because one is seeing all of the past events that one has previously avoided when framing one’s life story. This means facing loss and starting grief work. NET had a marked effect on dissociation, which coincides with the hypothesis just put forth. However, grief work needs to be done, and engaging in that work is highly significant.

NET is a treatment for PTSD, but previous studies have noted that it considerably alleviates dissociative symptoms. The current study obtained similar results. Of 6 participants at risk of developing pathological dissociation prior to NET, 4 had 0% probability of developing pathological dissociation afterwards. All of the participants scored below the cutoff of 30 points according to data from 1 year after therapy. Participant M’s dissociative symptoms decreased markedly 2 weeks after NET and then returned 6 months after NET. Participant N’s symptoms decreased only slightly, and the participant’s living conditions remained a threat after NET. Dissociation that has resolved can resurface under severe conditions or dissociation may never be eliminated; this finding reaffirmed the necessity of environmental manipulation. Participant H had 0% probability of developing pathological dissociation prior to NET but a 4% probability after NET. This was because the participant had more visual and auditory hallucinations than the other participants had. Participant H also had an immediate relation with a history of schizophrenia, and the participant’s response to NET differed somewhat from that of the other
participants.

3.4 The process of change evident in client narratives
[Omitted]

3.5 A discussion on organizing autobiographical memory
[Omitted]

3.6 Elements of art therapy in NET
[Omitted]
Chapter 4 Studies on adapting NET to treat PTSD in the general public

4.1 An overview of Chapter 4
[Omitted]

4.2 Adaptation to symptoms comorbid with PTSD
Comorbidities in the 14 participants were dissociative disorders, BPD, complicated grief, bipolar disorder, alcoholism, eating disorders, and fibromyalgia. Adaptation of NET will now be considered in light of whether these comorbidities hampered NET or whether they changed as a result of NET.

4.2.1 Dissociative disorders
Dissociative symptoms are an inevitable issue when treating PTSD \[^{155}\]. Considering adaptation of NET may help to address that issue. Dissociation has been considered a contraindication for exposure therapy thus far, but a meta-analysis by Halvorsen et al. indicated that dissociation did not reduce the effects of exposure therapy, so they found no grounds for considering dissociation to be a contraindication for exposure therapy \[^{46}\].

In the current study, only Participant M was diagnosed with dissociative disorders, and the participant’s DES-T\% was 100%. Like Participant M, Participants L and N had DES-T\% of 100%, Participant C had DES-T\% of 99.1%, and Participant E had DES-T\% of 92\%, so severe dissociative tendencies were noted. In light of these 5 participants (C, E, L, M, and N), adapting NET to PTSD and dissociative disorders will be considered.

The narratives of these 5 participants did not feature emotions or sensations that were appropriate to details, memories were often vague and the sequence of events was often jumbled, experiences at the time were not associated with emotions or sensations, recalled memories were forgotten, and severe avoidance tendencies were evident. Participant M in particular had almost no memory prior to middle school; as the participant explained, “I want to organize my memories, but I wonder if there is anything I can remember.” However, memories were associated with emotions and sensations as NET continued and the senses were engaged, evoking forgotten memories.

Figure 13 [Omitted]

When a memory is recalled, an individual must face a substantial loss for the first time. The individual will be staggered by doubts about the meaning of his or her life depending on the extent of the individual’s loss. The purpose of sessions after NET is to grieve over loss, to engage in further cognitive restructuring, and to acquire new behavioral patterns. All of the participants recalled new aspects
of major events that they had forgotten. Participant E in particular recalled more memories within 1 year of NET than she did during NET. Individuals with severe dissociation often recalled more memories after NET than did individuals without dissociation. Participants with slight dissociative tendencies and numerous intrusion symptoms like Participant A felt joy as a result of habituation as NET continued. In contrast, participants with severe dissociative tendencies faced new loss and traumatic experiences. Their dissociation had been a defense, but its elimination left them with a strong sense of life’s difficulties. Participants who recalled numerous buried memories often forgot things in their everyday life, irrespective of temporary triggers, or they had jumbled memories. This confusion was not found in participants who recalled few buried memories. Such symptoms disappeared after the end of NET.

Participants C, E, and L who had 0% probability of developing pathological dissociation after NET had a supportive environment. Participants M and N continued to have the same probability of developing pathological dissociation since they remained in a highly stressful environment. Environmental manipulation is crucial to effective therapy. With this in mind, NET is suitable for treatment of PTSD and dissociative disorders in certain situations. In other words, the effects of constructing narration of his/her whole life and the effort itself are effective in treating attachment trauma even if treatment begins without a specific target and adequate habituation has not occurred. NET improves verbalization skills and thus improves interpersonal relationships.

4.2.2 BPD

About 60% of patients with BPD have PTSD as well. Of the patients with complex PTSD who are encountered in a medical setting, a number will have a BPD and a lower level of personality organization. The intrusion, avoidance, and hyperarousal symptoms of PTSD accentuate the mood swings of BPD and further hamper the regulation of emotions. Of the 14 participants in this study, half (A, B, C, D, E, M, and N) were diagnosed with BPD or Emotionally Unstable Personality Disorder (including BPD in ICD-10 F60.31). These 7 participants had severe mood swings, a pattern of ambivalence towards others, a prolonged display of impulsive behavior, and severe distress in their everyday life (Table 2). Participant A had received outpatient care from Psychiatry for 6 years and had been admitted 3 times, Participant B had received outpatient care for 1 year, Participant C had received outpatient care for 7 years and had been admitted once, Participant D had received outpatient care for 12 years
and had been admitted 20 times, Participant E had received outpatient care for 14 years and had been admitted 17 times, Participant M had received outpatient care for 9 years and had been admitted once, and Participant N had received outpatient care for 6 years and had been admitted 33 times. The types of traumatic events that the 7 participants had experienced are shown in Table 6; all 7 of the participants had complex PTSD due to prolonged, repeated trauma. NET techniques and NET’s effects on PTSD, dissociation, and depressive symptoms have been described in Chapter 3. As shown in Table 7, Participants E and N were hospitalized during NET. NET sessions lasted from 80 minutes to 120 minutes, and 21 to 41 sessions were conducted. As a result, PTSD symptoms and pathological dissociation were not noted except in Participants M and N, and participants other than Participants B, M, and N had depressive symptoms that were in the normal range. The questionnaire was administered to Participants M and N 6 months and 3 months after NET, but the follow-up session was discontinued since those 2 participants quited. Thus, their scores 1 year after NET were not obtained.

A BPD scale was not used in this study, so changes in narratives, behavior, and physical symptoms were compared (Table 13) in order to examine changes in BPD symptoms. Changes were noted in all of the participants: they recognized that people had both good and bad sides, they enjoyed having friendships, they enjoyed having time to themselves, they were able to control their anger, they distanced themselves from dangerous people, they enjoyed work, housework, and parenting, they expanded their own horizons, and self-harm and addiction ended. BPD symptoms include instability of interpersonal relationships, self-image, and affects or impulsivity, severe abandonment anxiety, a pattern of unstable and intense interpersonal relationships, unstable self-image and problems with self-harm and addiction, chronic feelings of emptiness, inappropriate, and intense anger that is difficult to control. A comparison using objective assessment criteria was not possible, but participants’ distress was relieved since their BPD symptoms decreased.

Table 13 [Omitted]

For an individual with BPD, NET involves a simple goal—constructing one’s life story by “narrating” events in one’s life—through a simple process of exposure and habituation. NET can be readily implemented since it is a short-term treatment and a client’s progress is readily apparent in his or her life. NET does not merely involve recounting traumatic memories, since it also activates good memories that have been masked by traumatic memories and that have not been available to a client as a resource. NET presumably improves one’s ability to recount one’s experiences,
it fosters compensatory attachment through the experience of having someone (the therapist) listen carefully to one, and it strengthens a client’s ego\textsuperscript{120}. Moreover, NET can incorporate experiences required for typical development that are lacking (neglect) and incomprehensible experiences, so the perceptions of these experiences can be altered and their meaning can be reconstructed. Reading one’s whole life story aloud during the final session allows the client to perceive the “Gestalt” of the course of life \textsuperscript{40}, presumably strengthening the client’s ego.

The current results suggested that NET relieved severe symptoms due to PTSD and that NET can be effective in treating BPD as well. Although NET was intensive, the fact that problems such as medication, dissociation, addiction, self-harm, and suicidal thoughts did not hamper NET warrants attention. Changes in BPD symptoms were merely observations, but NET helped to alleviate PTSD symptoms, pathological dissociation, and depressive symptoms, and it may comprehensively relieve BPD symptoms.

4.2.3 Complicated grief

NET is effective alone or in combination with other techniques\textsuperscript{120}. Grief work (GW) after NET is effective in treating individuals who have been greatly impacted by bereavement\textsuperscript{130}. Participant L was in a depressive state. In addition to complex PTSD, Participant L had symptoms of complicated grief, such as prolonged, intense grief, panic attacks, an intense sense of guilt, sleep disorder, difficulty finding a job, and suicidal ideation. Participant L also had severe dissociative symptoms. Participant L had been bullied for a prolonged period because he had alopecia areata. After finding a job, Participant L was laid off. Amidst this job insecurity, the participant suffered traumatic bereavement over the sudden death (due to illness) of his mother and the suicide of his father. These 2 deaths had occurred in succession in a brief period, so the 2 had been blended without being given individual meaning and GW had not started. Bereavement over these 2 deaths occurred in the latter half of the Participant’s life. Though a previous study recommended GW after the end of NET, GW was conducted after each of these 2 deaths, between NET sessions.

The Participant received NET for 6 months in weekly sessions of 90–120 minutes as part of outpatient care at a psychiatric hospital. Afterwards, a 50-minute session was conducted weekly to facilitate cognitive restructuring and GW. The Participant’s CAPS score was 83 points prior to NET, 47 points 2 weeks after NET, 57 points 3 months after NET, 61 points 6 months after NET, and 54 points 1 year after NET, so his PTSD was alleviated.

The Participant’s IES-R score was 67 points prior to NET, 50 points 2 weeks after NET, 38 points 3 months after NET, 46 points 6 months after NET, and 33 points 1
year after NET, so his IES-R score decreased. The Participant’s SDS score was 60 points prior to NET, 46 points 2 weeks after NET, 52 points 3 months after NET, 48 points 6 months after NET, and 47 points 1 year after NET, so his depression was alleviated. He went from being in a severe depressive state to having depression in the normal range. The Participant’s DES score markedly decreased from 100% to 0%, and his ICG score gradually decreased from 84 points to 80 points and then 71 points. The cutoff for the ICG (Fig. 15) was set at 26 or 30 points, and the Participant’s score indicated that his symptoms of complicated grief had only been slightly relieved. Prior to NET, however, the Participant stated how he had the sense that “My mom is alive” 70% of the time versus the sense that “My mom is dead” 30% of the time. After NET, that ratio reached 50/50, and after GW it reached 40/60, so he actually accepted his mother’s death.

[Omitted]

4.2.4 Bipolar disorder, alcoholism, eating disorders, and fibromyalgia

Comorbidities present along with PTSD were bipolar disorder in 3 participants (D, J, and K), alcoholism in 2 participants (E and I), eating disorders in 1 participant (E), and fibromyalgia in 1 participant (K). These comorbidities did not hamper NET. A scale was not used to assess the symptoms of bipolar disorder in this study, so symptoms were assessed based on narratives and behavior. Participant D’s changes in emotion decreased considerably. She found a job and her extravagant spending and severe depressive symptoms disappeared. Participant J’s emotional ups and downs calmed, and conflict with her family decreased.

[Omitted]

Participant E and Participant I still had symptoms of alcoholism 1 year after NET. NET did not alleviate symptoms of alcoholism.

Participant K’s fibromyalgia pain was relieved after NET. During NET, she did not develop pain while recalling painful memories, which is worthy of notice. Participant K also reported that her pain in her daily life was relieved during NET.

[Omitted]

4.3 Adapting NET to trauma other than PTSD: Adjustment disorders and attachment disorders

Participant D had a CAPS score of 51 points prior to NET, but the events she experienced did not meet Criterion A, and she was diagnosed with adjustment disorder. The types of traumatic events that Participant D experienced were attachment trauma (her mother’s intense anger was directed at her, her anxiety was not eased, and her transitional object was throw away etc.), she had been bullied, she had been betrayed, and she had been laid off of work.
Participant D’s IES-R score was 42 points prior to NET and 11 points 1 year after NET. Her CAPS score was 51 points prior to NET and 6 points after therapy, and her SDS score was 46 points prior to NET and 33 points after therapy. One year after NET, Participant D had no PTSD symptoms or depressive symptoms based on her scores. Participant D’s DES score was originally 0%, and the participant was not found to have pathological dissociative symptoms.

As shown in Table 7, Participant D was interviewed 48 times prior to NET. Her condition was intractable, as indicated by the fact that she had received outpatient care for 12 years and that she had been admitted 20 times. As shown in Table 11, she was taking large doses of prescribed medication. Participant D’s difficulties clearly reflected impaired self-regulation as part of complex PTSD (e.g. difficulty regulating emotions, physical distress, and disorganization) rather than the core symptoms of PTSD. Forty-eight sessions were conducted to conduct psychoeducation and achieve normalization, to increase the Participant’s resources, to strengthen the Participant’s ego.

Although NET is a treatment for PTSD, it was also effective in treating adjustment disorder involving events that do not meet Criterion A in individuals with PTSD symptoms.

4.4 Adaptation to circumstances
4.4.1 Medication status
[Omitted]

4.4.2 Areas where NET is conducted
[Omitted]

4.4.3 Conducting NET in Japan
NET was developed to treat PTSD due to organized violence, but the recent manual mentions that it can be adapted to treat PTSD due to child abuse. The current study found that NET is as effective in treating PTSD in the Japanese public as it is in treating PTSD due to organized violence.

Results as have been noted in Europe, the Middle East, Africa, China, and North America have been noted in Japan as well. Cultural differences do not appear to be a particular issue, but there may be unidentified gaps or mismatches as were noted by Schnyder et al. [130]. Thus, these aspects need to be carefully examined in the future.

Participant D suffered from “relational stress” [113], which differs from obvious
mental, physical, or sexual abuse. This should probably be considered a form of stress specific to the Japanese context.

[Omitted]

In Europe and the US, obvious abuse is cited as a cause of PTSD. Even if such abuse is absent, a cumulative discrepancy in feelings can cause serious trauma in Japanese culture, which emphasizes intuiting and considering another person’s feelings. This point is important. A therapist who fails to consider that point when presented with a client with severe symptoms might assume that the client has suffered more serious traumatic experiences. This could result in false memories along with the persecutory anxiety particular to trauma survivors. During narrative-based treatment, the therapist should pay careful attention to avoid evoking a narrative based on his or her own assumptions.

[Omitted]

4.5 Issues remaining after NET
[Omitted]

4.6 An examination of exclusion criteria
[Omitted]

4.7 Dropouts
The author has conducted NET with 20 clients (including clients who are still receiving NET). Only 1 client dropped out, so the dropout rate is extremely low (5%). This finding of a low dropout rate in exposure therapy agrees with the results of previous studies.
Chapter 5  General discussion

5.1  An overview of Chapter 5
[Omitted]

5.2  An overview of this research

5.2.1  Objective
[Omitted]

5.2.2  Methods
[Omitted]

5.2.3  Results

The PTSD symptom reduction after NET measured by CAPS and IES-R was significant, and it gradually decreased for up to 1 year after NET. Six participants had IES-R scores below the cutoff 1 year after NET, and 4 participants had CAPS scores below the cutoff. PTSD symptoms showed a significant reduction in the other participants as well. Symptoms did not worsen and they did not remain the same. NET markedly alleviated PTSD symptoms. According to data for up to 1 year after NET, depressive symptoms were alleviated in 6 participants, they remained the same in 3 participants, and they worsened in 1 participant. One reason why symptoms worsened is presumably because grief work to face loss began. NET was effective in treating depression. Role reversal letter-writing was incorporated to treat complicated grief. A severe depressive state was alleviated (i.e. depression was in the normal range), but ICG scores remained high. Dissociative symptoms were markedly reduced after NET. According to data from 1 year after NET, no participants had pathological dissociation that exceeded the cutoff. Some participants (whose scores 1 year after NET were not available) had less of a decrease in dissociative symptoms. This may have been because the participants remained in contact with a perpetrator or because they were younger. Impaired self-regulation is a symptom of complex PTSD that is evident in difficulty regulating emotions, impaired ability to form interpersonal relationships, changes in attention and consciousness (e.g. dissociation), having a negatively impacted belief system, and physical distress or disorganization. NET considerably relieved the core symptoms of PTSD – intrusion, avoidance, hyperarousal – and it also alleviated impaired self-regulation.

Comorbidities and medication did not hamper NET. No participants had worse PTSD symptoms during or after NET in comparison to their symptoms prior to NET, and therapy was safely conducted. Comorbidities in the form of BPD, depression, bipolar disorder, dissociative disorders, complicated grief, and symptoms of fibromyalgia were also relieved by NET. NET alleviated symptoms of eating disorders. NET had
an effect on alcoholism in some participants and no effect in others. NET had an effect on adjustment disorder that involved events that did not meet Criterion A much like the effect it had on PTSD. In the framework of a psychiatric hospital and a university counseling office in Japan, NET was effective in treating complex PTSD in the general public. NET is therapeutic, and it is also nurturing and it facilitates compensatory attachment at the same time. NET has a low dropout rate and it is a simple technique that is easy to learn. NET may be a promising treatment for complex PTSD in Japan.

This work obtained the following results that substantiate the effectiveness of NET:

1) NET is effective in treating complex PTSD resulting from prolonged, repeated trauma.
2) NET is considered effective in treating complex PTSD due to organized violence in clinical settings where the risk of trauma remains. NET is also effective in treating complex PTSD in the general public in routine clinical settings.
3) NET has proven effective in treating individuals of different races overseas, and it is also effective in treating Japanese.
4) NET reduces PTSD symptoms and thus alleviates comorbidities present along with PTSD.
5) NET may be an effective therapy for complex PTSD in Japanese

Assembling further clinical experience with NET and conducting RCTs on this therapy are topics for the future.

5.3 The therapeutic elements of NET

[Omitted]

5.4 Issues remaining after NET

According to the expert consensus of the ISTSS, the best treatments for complex PTSD include techniques such as improving emotion regulation skills, recounting traumatic memories, cognitive restructuring, anxiety and stress management, and improving interpersonal skills. NET mainly involves recounting traumatic memories, cognitive restructuring, and relieving anxiety. Emotion regulation skills, stress management, and interpersonal relationship skills need to be introduced in follow-up sessions after the end of NET, and they can easily be incorporated prior to the start of NET through experience down-regulating emotions that are repeatedly heightened during NET and through practice verbalizing one’s experiences.

During NET, negative perceptions of one’s self, society, and life can be changed through the process of cognitive restructuring. This dovetails nicely with the building up of various skills in follow-up sessions after NET. For example, the
client can start and continue grief work by facing traumatic experiences, the client can deal with traumatic memories that have been freshly recalled after the end of NET, and the client can deal with his or her anger at a perpetrator once his or her fear has been eliminated. This study has taken on that work through coordination with various professionals such as care helpers, visiting nurses, psychiatric day care staff, cognitive rehabilitation staff, and job assistance staff.

5.5 Points to consider

In the current participants, the problems of dissociation and addiction did not hamper NET. Previous studies, however, indicated that NET should be discontinued if drug dependence, eating disorders, or psychiatric symptoms abruptly worsens. NET quickly deals with addiction, but attention must be paid to withdrawal symptoms. NET markedly alleviates dissociative symptoms, so environmental manipulation must be performed beforehand. Dissociation works as a defense, so risks in the environment must be avoided once it is eliminated. Risks such as continued contact with a perpetrator, the potential for a client to drop out from follow-up sessions, and the scheduling of major life events should be seriously examined.

[Omitted]

5.6 Limitations

This study has several limitations. It is an exploratory study, it involved a small sample, there was no control group, and few assessment scales were used. In the future, the effectiveness of NET needs to be rigorously verified by increasing the sample size and by conducting an RCT in which the therapist conducting NET is not the same person who administers scales.

[Omitted]

5.7 Topics for the future

[Omitted]

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