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CLINICAL RESEARCH ARTICLE



## EMDR treatment in patients with personality disorders. Should we fear symptom exacerbation?

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### ABSTRACT

**Background:** Clinicians are often hesitant to use trauma-focused therapy for patients with personality disorders (PDs) because of concerns that the pathology may worsen.

**Objective:** Exploring trajectories of change and individual exacerbations in psychological distress and suicidal thoughts in patients with a PD without comorbid posttraumatic stress disorder (PTSD) during EMDR therapy or waiting time.

**Method:** In a randomized controlled trial, the effectiveness of five sessions of EMDR therapy was compared with a waitlist in 97 outpatients. Acute suicidal patients were not included in this study. Psychological distress and suicidality scores were measured on a weekly basis during the EMDR and waiting list (WL) periods and at 3-month follow-up. Data were analysed in a descriptive manner for individual patients, and hierarchical cluster analysis was used to identify patterns of change among clusters of patients. Mann–Whitney U and chi-squared tests were used to explore differences in specific patient characteristics between the found clusters of patients.

**Results:** Patients generally improved, and no clusters of patients deteriorated during the EMDR therapy. Session-to-session exacerbations occurred in both the EMDR (psychological distress: 10.0%; suicidal thoughts: 28.0%) and WL group (psychological distress: 28.0%; suicidal thoughts: 43.5%). Two percent of patients in the EMDR group and 8.7% of patients in the WL condition showed an increase in psychological distress, whereas 2.0% of patients in the EMDR group and 10.9% of patients in the WL condition showed an increase in suicidal thoughts posttreatment compared to baseline.

**Conclusions:** These results show that although individual exacerbations in psychological distress and suicidal thoughts occur, these were less likely to occur in response to EMDR therapy compared with no therapy. Continuation of therapy following exacerbation led to a decrease in psychological distress and suicidal thoughts in most patients.

### Tratamiento EMDR en pacientes con trastornos de personalidad. Debemos temer la exacerbación de los síntomas?

**Antecedentes:** Los clínicos suelen dudar en utilizar una terapia centrada en el trauma para pacientes con trastornos de personalidad (TPs) debido a la preocupación de que la patología pueda empeorar.

**Objetivo:** Explorar las trayectorias de cambio y exacerbaciones individuales en el malestar psicológico e ideación suicida en pacientes con un TP sin comorbilidad con trastorno de estrés postraumático (TEPT) durante la terapia EMDR o tiempo de espera.

**Método:** En un ensayo controlado aleatorizado, se comparó la efectividad de cinco sesiones de terapia EMDR con una lista de espera en 97 pacientes ambulatorios. Los pacientes suicidas agudos no se incluyeron en este estudio. Las puntuaciones del malestar psicológico y suicidality se midieron semanalmente durante los periodos de EMDR y lista de espera (LE) y en el seguimiento a los 3 meses. Los datos se analizaron de manera descriptiva para los pacientes individuales y se utilizó análisis de conglomerados jerárquico para identificar patrones de cambio entre los grupos de pacientes. Se utilizaron pruebas de U de Mann–Whitney y chi cuadrado para explorar las diferencias en las características específicas de los pacientes entre los grupos de pacientes encontrados.

**Resultados:** Los pacientes en general mejoraron y ningún grupo de pacientes se deterioró durante la terapia EMDR. Se produjeron exacerbaciones sesión a sesión tanto con EMDR (malestar psicológico: 10.0%; ideación suicida: 28.0%) como en el grupo LE (malestar psicológico: 28.0%; ideación suicida: 43.5%). El dos por ciento de los pacientes en el grupo

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### PALABRAS CLAVE

Trastorno de personalidad; EMDR; trauma; patrones de respuesta; negligencia; suicidalidad

### HIGHLIGHTS

- This is the first study exploring trajectories of change and individual exacerbations in patients with a personality disorder (PD) without comorbid posttraumatic stress disorder (PTSD) during EMDR therapy or waiting time.
- The results show that although individual exacerbations in psychological distress and suicidal thoughts occur, these were less likely to occur in response to EMDR therapy compared with no therapy. The patients generally improved, and no clusters of patients deteriorated during EMDR therapy.
- Continuation of therapy following exacerbation led to a decrease in psychological distress and suicidal thoughts in most patients. Only two percent of patients in the EMDR group showed an increase in psychological distress and suicidal thoughts posttreatment compared to baseline.

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EMDR y 8.7% de los pacientes en la condición de LE mostraron un aumento del malestar psicológico, mientras que el 2.0% de los pacientes en el grupo EMDR y 10.9% de los pacientes en la condición LE mostraron un aumento de la ideación suicida postratamiento en comparación con el inicio.

**Conclusiones:** Estos resultados muestran que, si bien se producen exacerbaciones individuales del malestar psicológico e ideación suicida, es menos probable que se produzcan en respuesta a la terapia EMDR en comparación con la ausencia de terapia. La continuación de la terapia después de la exacerbación condujo a una disminución del malestar psicológico y de la ideación suicida en la mayoría de los pacientes.

## 1. Introduction

In Western societies, up to 50% of patients in mental health care settings fulfil the criteria for a personality disorder (PD) diagnosis (Newton-Howes et al., 2010). PDs impose high levels of personal distress and severe economic burden (Soeteman et al., 2008). Because current treatment options are extensive and costly (Paris & Black, 2021), effective interventions with shorter durations are urgently needed.

People who have been exposed to adverse childhood experiences such as physical and emotional abuse or neglect are more likely to develop a PD (Johnson et al., 2000; Lobbestael et al., 2010). Although more common in patients with borderline personality disorder (BPD) (approximately 90 %; Brakemeier et al., 2018), the prevalence rates of childhood maltreatment in patients with other types of PDs are high as well, with 73% reporting abuse and 82% neglect (Battle et al., 2004).

Increasing evidence suggests that patients with a PD may benefit from trauma-focused psychotherapy (Hafkemeijer et al., 2020; Kolthof et al., 2022). One such therapy is EMDR therapy. This method has been recommended as a first-line treatment for PTSD (De Jongh et al., 2024a) and there is evidence that it is effective for other forms of psychopathology that stem from unprocessed memories of distressing or traumatic experiences (De Jongh et al., 2024b). EMDR therapy enables the access and activation of stored traumatic information from adverse childhood events. After activation, with EMDR therapy, these disturbing memories are processed by performing a task that demands working memory (De Jongh et al., 2013; De Jongh et al., 2024a; Shapiro, 2018).

Despite the high prevalence of unprocessed adverse (childhood) events in patients with a PD, evidence on the effects of trauma-focused therapy in patients with a PD is limited. To date, three studies (Hafkemeijer et al., 2020; Slotema et al., 2019; Wilhelmus et al., 2023) have found that EMDR therapy is effective in processing memories of adverse events in patients with a PD and comorbid PTSD. Furthermore, significant symptom reduction and improved functioning were revealed in a RCT among patients with a PD without PTSD, with a short course of five weekly

sessions of EMDR therapy, even without providing individuals with any preparation phase or skills training both prior to or during treatment (Hafkemeijer et al., 2020).

Despite these promising results, both clinicians and experts often presume that individuals with complex psychopathology, such as a PD, could be harmed by (premature) confrontations with emotionally charged memories, that may result in an aggravation of symptoms, including emotion dysregulation, intentional self-injury, and suicidality, particularly in patients with BPD (Cloitre et al., 2011; Harned et al., 2014). Accordingly, the presence of this mental health condition has long been an exclusion criterion for patients undergoing prolonged exposure (PE) therapy for PTSD, suggesting that it would be contraindicated for people with parasuicidal behaviour and aggression-regulation problems (Foa et al., 2007). However, despite cautions about the use of trauma-focused therapy in patients with a PD, we are not aware of any study that has specifically examined individual symptom exacerbation and response patterns of PD patients during a trauma-focused therapy. Therefore, the purpose of the present analysis was to examine patients' symptom exacerbation during the course of five sessions of EMDR therapy performed without any form of stabilization prior to or during therapy. We determined the proportion of patients with symptom exacerbation during EMDR and assessed whether this would be higher than that in the waitlist condition. We were also interested in the presence of distinct clusters of response patterns of symptoms during EMDR.

## 2. Methods

The present study was conducted with the aid of a dataset from a previously published study (Hafkemeijer et al., 2020) that tested a fundamentally different question. The trial design was approved by the Medical Ethics Committee, South West Holland, number NL61845.098.17 and registered at <https://www.trialregister.nl/trial/7470>. Adverse events (AEs) were monitored and reported. Patients were recruited on admission to our department and were eligible for

participation if they met the following inclusion criteria: a primary diagnosis of a PD according to the DSM-5 criteria and an age between 18 and 65 years. Exclusion criteria were a diagnosis of PTSD, a high suicide risk as operationalized by a suicide attempt within the past six months, current suicidal intentions or severe auto-mutilation, and an inability to read or write the Dutch language. Comorbidities of other mental disorders were not an exclusion criterion. All participants provided written informed consent and were randomly allocated to either the five sessions of EMDR therapy ( $n = 50$ ) or a wait-list control condition ( $n = 46$ ). TAU for their PD was offered after five weeks of EMDR therapy or after five weeks on the waiting list. Data were collected at baseline (before EMDR started in the EMDR group), after every week or following the EMDR session, at either posttreatment or post-wait list (i.e. after 5 weeks in both conditions), and a follow-up after three months of treatment as usual (TAU). In both groups, the patients were permitted to receive any other form of psychological/psychiatric treatment. If patients had already used medication, this medication could be continued.

### 2.1. Patient flow

The flowchart of participants through the trial has been previously published (Hafkemeijer et al., 2020). Ten patients dropped out or were lost to follow-up in the EMDR therapy and four in the wait-list group. Patients were receiving treatment at three outpatient clinics of a specialized psychiatric institute in the Netherlands. All patients met the diagnostic criteria for a PD. Of them 30.4% fulfilled the diagnostic criteria of a cluster B PD diagnosis, 39.1% of a cluster C PD diagnosis, and 30.4% of the patients met the diagnostic criteria of a PD diagnosis otherwise specified. One-third of the patients also fulfilled the diagnostic criteria of three or more comorbid diagnoses, 37% of two comorbid diagnoses, and 30% of only one comorbid diagnosis.

### 2.2. Treatment

EMDR therapy is a trauma-focused treatment consisting of dosed, sequentially applied attention focused on disturbing memory, while at the same time the attention of the patient is directed to another concurrent (dual-attention) task. For a description of EMDR therapy see: <https://www.emdria.org/about-emdr-therapy/>. In this study, the standard eight-phase EMDR protocol (De Jongh & Ten Broeke, 2019; Shapiro, 2018) was applied. The duration of each session was 90 min. First, patients were informed about EMDR therapy. Next, case conceptualization was conducted based on the patient's

current symptoms of their PD. Traumatic memories that may have caused or aggravated these symptoms were inventoried using a timeline to structure the order of the memories to be targeted (i.e. 'First method'; De Jongh & Ten Broeke, 2019). Trauma was defined as memories related to any A-criterion-worthy event, but also other types of adverse events, such as emotional abuse and neglect, the death of a loved one, divorce, or going through illness. After the first memory was treated, EMDR therapy was continued by targeting the subsequent memory on the timeline. In this way, memories that were considered to contribute the most to patients' current symptoms were identified and processed. Participants in the control group did not receive treatment for a period of five weeks, matching the length of EMDR treatment.

### 2.3. Treatment training and integrity

All 12 therapists involved in this study were experienced in providing EMDR therapy and had completed at least a 4-day EMDR basic training course accredited by the EMDR Europe Association. They participated in monthly supervision sessions in a small group during the study and shared their therapy sessions, which were recorded on a video. Adherence to the EMDR protocol was verified during the supervision sessions that were led by a registered VEN (Vereniging EMDR Nederland) consultant and EMDR Europe accredited trainer (AdJ).

### 2.4. Measures

#### 2.4.1. Outcome measure

The level of psychological distress was measured after every weekly session (EMDR condition) or every week (waitlist condition) using the total score of the Outcome Questionnaire-45 (OQ-45; Lambert & Finch, 1999). The OQ-45 is a self-report questionnaire designed to index patients' reported progress in therapy through repeated administration during the course of treatment and at termination. The OQ-45 consists of 45 items indexing the level of psychological distress within three domains of functioning: symptom distress (i.e. degree of subjective discomfort), interpersonal relations (i.e. impairment in interpersonal functioning with partner, family, or friends), and social role performance (i.e. impairment in functioning at work and other social roles). Each of the 45 questions can be answered using a 5-point Likert scale ranging from 0 ('never') to 4 ('almost always'). Higher scores reflect higher levels of psychological distress. Suicidality scores were measured using responses to item eight on the OQ-45 ('I am thinking of ending my life'). An answer on item eight higher than zero indicates a risk of suicide (De Jong et al.,

2008). The OQ-45 has good psychometric properties (De Jong et al., 2007).

## 2.5. Statistical analysis

Data analysis was performed using SPSS version 27. A hierarchical cluster analysis based on Ward's method (1963) was used to identify clusters of patients with a minimum within-cluster variation and a maximum between-cluster variation in scores of severity of psychological distress and suicidal thoughts at six different time points: at baseline; at week two, three and four, at post-treatment or after five weeks in the control group; and at follow-up, three months after the onset of TAU. The number of clusters was determined based on a dendrogram and visual inspection of different cluster solutions (Fielding, 2006). Then, for both the control and EMDR therapy groups, Mann–Whitney U tests and chi-squared tests were performed to explore whether the differences found in clusters were associated with specific patient characteristics.

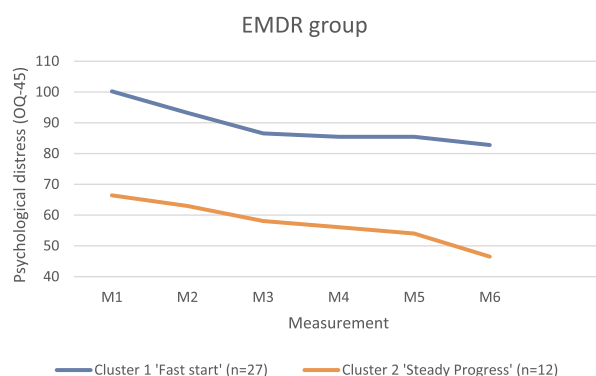
To determine exacerbations of individual patients in the EMDR group and the control group, scores of psychological distress (OQ-45) and suicidal thoughts (item 8, OQ-45) were compared at six different measurement points. Symptom exacerbation was defined as an increase in symptoms with a reliable change index (RCI) (Beckstead et al., 2003) value of at least 14 points for the OQ-45 (De Jong et al., 2007). A RCI of 14 or higher indicated that the patient was doing reliably worse and reflected a reliable change. For suicidal thoughts (item 8, OQ-45), an increase of at least one point was defined as an exacerbation, as any increase in suicidal thoughts was considered relevant (De Jong et al., 2007).

## 3. Results

### 3.1. Response patterns of psychological distress in the EMDR group

Two clusters of patients that showed a similar response pattern could be identified in the EMDR

group based upon their psychological distress scores, i.e. a 'fast start' and a 'steady progress' cluster, see Figure 1. Table 1 shows the demographic characteristics of patients in the EMDR therapy group per cluster. The two clusters of patients in the EMDR therapy group did not differ significantly in either cluster of PD, sex, or age. Patients in the 'fast start' cluster (1) showed a fast decline in psychological distress in the first three sessions of EMDR therapy. This cluster consisted primarily of individuals with a Cluster C PD (55.6%). Patients in this cluster experienced higher scores for psychological distress than patients in the second cluster. Patients in the 'steady progress' cluster (2), who were primarily patients with an otherwise specified (OS) PD (50%), showed a steady decline in symptoms during EMDR therapy. Eleven patients could not be divided into either of the clusters (and did not form a group together), because they showed a different unique response pattern. In the description of individual exacerbations these patients were included. Neither of them reported adverse events such as a clinical admission, nor could a pattern of symptom exacerbation be identified.



**Figure 1.** Mean psychological distress scores of patients in the EMDR group per cluster over time.

M1, baseline measurement, M2 = measurement after session 2, M3 = measurement after session 3, M4 = measurement after session 4, M5 = post-treatment measurement, M6 = follow-up measurement 3 months after TAU, OQ-45 = Outcome Questionnaire-45.

**Table 1.** Characteristics of the patients in the EMDR group per cluster for psychological distress.

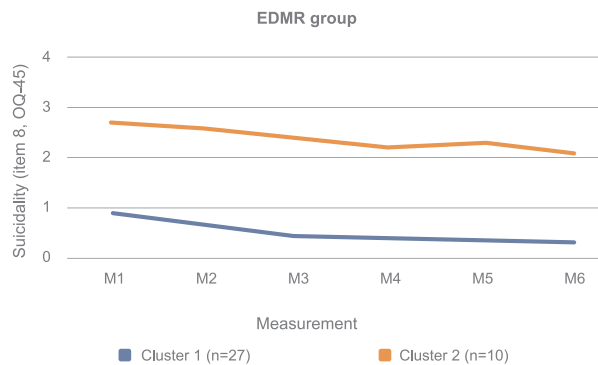
|                                  | Cluster 1<br>(n = 27) 'Fast start' | Cluster 2<br>(n = 12) 'Steady Progress' | Statistic                   |
|----------------------------------|------------------------------------|-----------------------------------------|-----------------------------|
| Sex                              |                                    |                                         | $\chi^2(1) = 0.58, p = .45$ |
| Male                             | 10 (37.0%)                         | 6 (50%)                                 |                             |
| Female                           | 17 (63.0%)                         | 6 (50%)                                 |                             |
| Mean age (years)                 | 35 (SD = 13.0)                     | 35 (SD = 12.5)                          | $U = 158.50, p = .92$       |
| Personality cluster              |                                    |                                         | $\chi^2(2) = 3.05, p = .22$ |
| B                                | 6 (22.2%)                          | 2 (16.7%)                               |                             |
| C                                | 15 (55.6%)                         | 4 (33.3%)                               |                             |
| OS*                              | 6 (22.2%)                          | 6 (50%)                                 |                             |
| DSM 5 Personality Classification |                                    |                                         | $\chi^2(3) = 2.40, p = .49$ |
| Borderline                       | 6 (22.2%)                          | 2 (16.7%)                               |                             |
| Avoidant                         | 10 (37.0%)                         | 2 (16.7%)                               |                             |
| Obsessive                        | 3 (11.1%)                          | 2 (16.7%)                               |                             |
| OS*                              | 8 (29.6%)                          | 6 (50%)                                 |                             |

\*OS, otherwise specified.



### 3.2. Response patterns of suicidal thoughts in the EMDR group

In the EMDR therapy group, two clusters of patients that showed a similar response pattern were identified based on their suicidality scores (Item 8 on the OQ-45; Figure 2). The demographic characteristics of patients



**Figure 2.** Mean scores for suicidal thoughts of patients in the EMDR group per cluster over time.

M1 = baseline measurement; M2 = measurement after session 2; M3 = measurement after session 3; M4 = measurement after session 4; M5 = post-treatment measurement; M6 = follow-up measurement 3 months after TAU; OQ-45 = Outcome Questionnaire-45.

in the EMDR therapy group per cluster are presented in Table 2. The two clusters of patients in the EMDR therapy group did not differ significantly on DSM 5 personality classification, gender, or age, but a significant difference in the cluster of PD was found ( $p = .02$ ). The first cluster consisted primarily of individuals with a cluster C PD (46.43%) and patients with an otherwise specified (OS) PD (42.86%).

Patients in the first cluster showed a decline in suicidality scores in the first four sessions of EMDR therapy. From the fourth to the fifth session, a slight increase was found, followed by a further decline in suicidality scores after TAU had started. Patients in this cluster experienced a higher level of suicidal thoughts than those in the second cluster. Patients in the second cluster were primarily those with a cluster B PD (50%) and a Cluster C PD (40%). They showed a steady decline in suicidal thoughts during the first four sessions of EMDR therapy, followed by a slight increase.

### 3.3. Response patterns of psychological distress in the waitlist control group

In the control group, two clusters of patients with similar response patterns were identified: Cluster 1 ('little

**Table 2.** Characteristics of the patients in the EMDR group per cluster for suicidality scores.

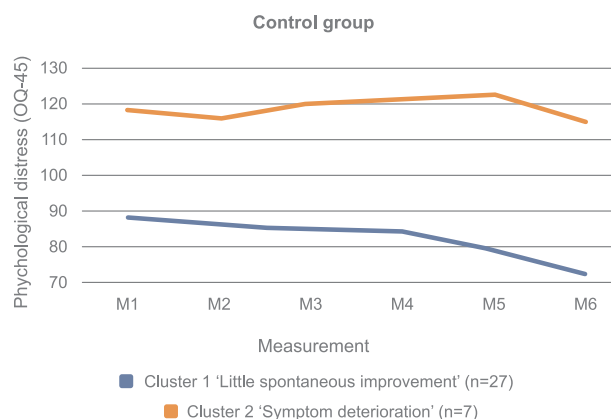
|                                  | Cluster 1<br>(n = 28) | Cluster 2<br>(n = 10) | Statistic                   |
|----------------------------------|-----------------------|-----------------------|-----------------------------|
| Sex                              |                       |                       | $\chi^2(1) = 0.20, p = .65$ |
| Male                             | 11 (39.29%)           | 3 (30%)               |                             |
| Female                           | 17 (60.71%)           | 7 (70%)               |                             |
| Mean age (years)                 | 37.10 (SD = 12.43)    | 29.20 (SD = 11.82)    | $U = 93.00, p = .09$        |
| Personality cluster              |                       |                       | $\chi^2(2) = 8.25, p = .02$ |
| B                                | 3 (10.71%)            | 5 (50%)               |                             |
| C                                | 13 (46.43%)           | 4 (40%)               |                             |
| OS*                              | 12 (42.86%)           | 1 (10%)               |                             |
| DSM 5 Personality Classification |                       |                       | $\chi^2(3) = 7.01, p = .07$ |
| Borderline                       | 3 (10.71%)            | 5 (50%)               |                             |
| Narcissistic                     | 0                     | 0                     |                             |
| Avoidant                         | 8 (28.57%)            | 2 (20%)               |                             |
| Obsessive                        | 4 (14.29%)            | 1 (10%)               |                             |
| OS*                              | 13 (46.43%)           | 10 (100%)             |                             |

\*OS, otherwise specified.

**Table 3.** Characteristics of the patients in the control group per cluster for psychological distress.

|                                  | Cluster 1:<br>'Little spontaneous improvement'<br>(n = 27) | Cluster 2<br>'Symptom deterioration'<br>(n = 7) |                             |
|----------------------------------|------------------------------------------------------------|-------------------------------------------------|-----------------------------|
| Sex                              |                                                            |                                                 | $\chi^2(1) = .22, p = .64$  |
| Male                             | 9 (33.3%)                                                  | 3 (42.9%)                                       |                             |
| Female                           | 18 (66.7%)                                                 | 4 (57.1%)                                       |                             |
| Mean age (years)                 | 31 (SD = 11.4)                                             | 35 (SD = 14.3)                                  | $U = 77.5, p = .47$         |
| Personality cluster              |                                                            |                                                 | $\chi^2(2) = 4.55, p = .10$ |
| B                                | 10 (37.0%)                                                 | 0                                               |                             |
| C                                | 9 (33.3%)                                                  | 5 (71.4%)                                       |                             |
| OS*                              | 8 (29.6%)                                                  | 2 (28.6%)                                       |                             |
| DSM 5 Personality Classification |                                                            |                                                 | $\chi^2(5) = 8.63, p = .13$ |
| Borderline                       | 8 (29.6%)                                                  | 0                                               |                             |
| Avoidant                         | 4 (14.8%)                                                  | 3 (42.9%)                                       |                             |
| Obsessive                        | 5 (18.5%)                                                  | 1 (14.3%)                                       |                             |
| OS                               | 8 (29.6%)                                                  | 2 (28.6%)                                       |                             |
| Narcissistic                     | 2 (7.4%)                                                   | 0                                               |                             |
| Dependent                        | 0                                                          | 1 (14.3%)                                       |                             |

\*OS; otherwise specified.



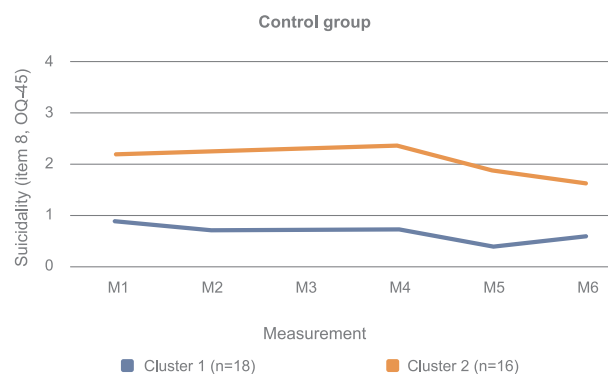
**Figure 3.** Mean psychological distress of patients in the control group per cluster over time.

M1 = baseline measurement; M2 = measurement after 2 weeks waitlist, M3 = 3 weeks waitlist, M4 = 4 weeks waitlist, M5 = 5 weeks waitlist, M6 = follow-up measurement at three months after TAU; OQ-45 = Outcome Questionnaire-45.

spontaneous improvement' and Cluster 2 'symptom deterioration'). Table 3 describes the demographic characteristics of the two clusters in the control group. The first cluster showed little improvement during the five weeks waiting list period, followed by more symptom deterioration after treatment as usual (TAU) for their PD. The second cluster revealed an increase in symptoms in the first five weeks of wait time, followed by a decrease in symptoms after TAU for the PD. The response patterns are shown in Figure 3. The two clusters of patients did not differ significantly in terms of PD, sex, or age (Table 4).

### 3.4. Response patterns of suicidal thoughts in the waitlist control group

In the control group, two clusters were identified based on the scores for suicidal thoughts. The demographic characteristics of the two clusters in the control group are presented in Table 4. In the first cluster, higher suicidality scores at baseline were reported compared to the second cluster, which



**Figure 4.** Mean scores for suicidal thoughts of patients in the control group per cluster over time.

M1 = baseline measurement, M2 = measurement after 2 weeks waitlist, M3 = 3 weeks waitlist, M4 = 4 weeks waitlist, M5 = 5 weeks waitlist, M6 = follow-up measurement at three months after TAU, OQ-45 = Outcome Questionnaire-45.

consisted mainly of patients with cluster C PD (50%). The first cluster showed stable suicidality scores during the first four weeks of the waiting list period, followed by a decline in suicidality from Measurement 4. The second cluster showed stable suicidality scores during the first four weeks of wait time, followed by a decrease in the severity of suicidality after TAU for the PD. The response patterns are presented in Figure 4. The two clusters of patients did not differ significantly on either cluster of PD, gender or age (Table 4).

### 3.5. Individual exacerbations in the EMDR and control group

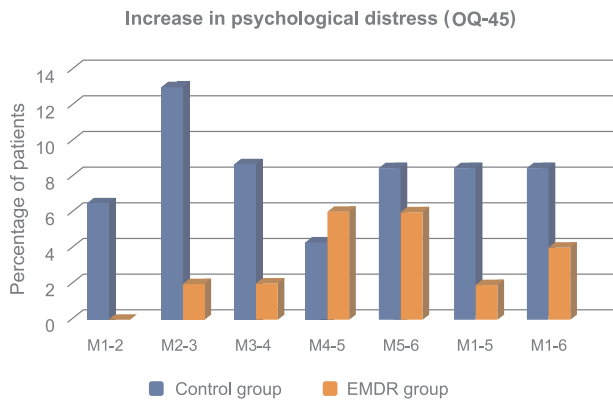
#### 3.5.1. Psychological distress

In Figure 5, the proportion of patients who reported symptom exacerbations on psychological distress during EMDR therapy or waiting time is shown. None of the 50 patients in the EMDR group showed an increase in psychological distress between session one and two, one between session two and three, one between session three and four, three between session four and five and

**Table 4.** Characteristics of the patients in the Control group per cluster for suicidality scores.

|                                  | Cluster 1<br>(n = 18) | Cluster 2<br>(n = 16) | Statistic                   |
|----------------------------------|-----------------------|-----------------------|-----------------------------|
| Sex                              |                       |                       | $\chi^2(1) = .95, p = .33$  |
| Male                             | 5 (27.77%)            | 7 (43.75%)            |                             |
| Female                           | 13 (72.22%)           | 9 (56.25%)            |                             |
| Mean age (years)                 | 34.39 (SD = 12.27)    | 29.25 (SD = 11.16)    | $U = 98.00, p = .11$        |
| Personality cluster              |                       |                       | $\chi^2(2) = 1.43, p = .49$ |
| B                                | 4 (22.22%)            | 6 (37.5%)             |                             |
| C                                | 9 (50%)               | 5 (31.25%)            |                             |
| OS*                              | 5 (27.77%)            | 5 (31.25%)            |                             |
| DSM 5 Personality Classification |                       |                       | $\chi^2(5) = 3.35, p = .65$ |
| Borderline                       | 3 (16.67%)            | 5 (31.25%)            |                             |
| Narcissistic                     | 1 (5.56%)             | 1 (6.25%)             |                             |
| Avoidant                         | 5 (27.78%)            | 2 (12.5%)             |                             |
| Obsessive                        | 4 (22.22%)            | 2 (12.5%)             |                             |
| OS*                              | 5 (27.78%)            | 5 (31.25%)            |                             |

\*OS, otherwise specified.



**Figure 5.** Percentage of patients showing symptom exacerbation between measurement moments (sessions).

M1 = baseline measurement, M2 = measurement after session 2, M3 = measurement after session 3, M4 = measurement after session 4, M5 = post-treatment measurement, M6 = follow-up measurement at 3 months after TAU, OQ-45 = Outcome Questionnaire-45. Exacerbation was defined as deterioration of at least one standard deviation.

three after the TAU for PD had started (between session five and six). From baseline to posttreatment one patient in the EMDR group showed an increase in psychological distress (2%). In total five (10%) patients showed an increase in psychological distress at any of the measurement moments between BL and PT.

In the waitlist control group, three of the 46 patients showed an increase in psychological distress between session one and two, six between session two and three, four between session three and four, two between session four and five and four between measurement five and six. From baseline to posttreatment four patients in the control group (8.70%) showed an increase in psychological distress. At any of the measurement points from BL to PT, 28% ( $n = 13$ ) of patients in this group showed an increase in psychological distress.

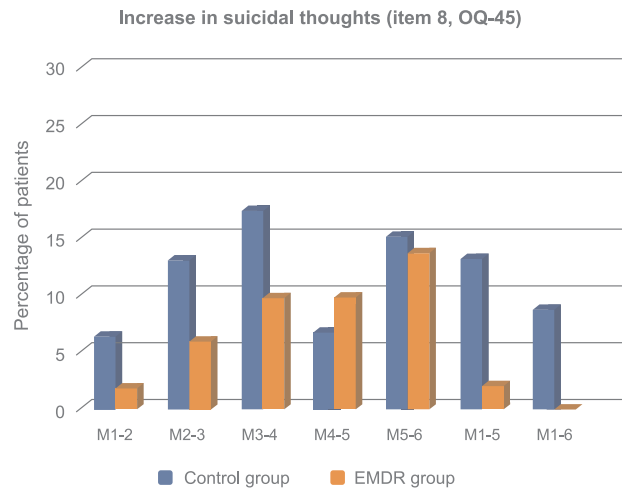
Between baseline and follow-up (EMDR + TAU), eight patients (16%) in the EMDR group and 16 patients (35%) in the WL group showed exacerbations in psychological distress at any measurement point.

### 3.5.2. Suicidal thoughts

Figure 6 shows the proportion of patients who reported an increase in suicidal thoughts between specific sessions or during the waiting time (of at least one point). One of the 50 patients in the EMDR group showed an increase in suicidal thoughts between session one and two, three between session two and three, five between session three and four, five between session four and five and seven after TAU for PD had started (between session five and six).

In total, 28% ( $n = 14$ ) of the patients in the EMDR group showed an increase in suicidal thoughts at any of the measurement points from BL to PT.

Three of the 46 patients in the control group showed an increase in suicidal thoughts between session one and two, six between session two and three,



**Figure 6.** Percentage of patients showing an increase in suicidal thoughts between measurement moments.

M1 = baseline measurement, M2 = measurement after session 2, M3 = measurement after session 3, M4 = measurement after session 4, M5 = post-treatment measurement, M6 = follow-up measurement at 3 months after TAU, OQ-45 = Outcome Questionnaire-45. Exacerbation was defined as a deterioration of at least one standard deviation.

eight between session three and four, three between session four and five and seven between measurement five and six. From baseline to posttreatment one patient in the EMDR group showed an increase in suicidal thoughts (2%) and five patients in the control group (10.87%). An increase in suicidal thoughts at any of the measurement moments from BL to PT was observed in 43.5% ( $n = 20$ ) of the patients.

Over the entire measurement period from BL to FU (EMDR + TAU), an increase in suicidal thoughts was observed in 19 (38%) and 26 (56.5%) of the patients in the EMDR and WL groups, respectively.

## 4. Discussion

To our knowledge, this is the first study to evaluate the response patterns of psychological distress and suicidal thoughts as well as individual exacerbations during trauma-focused therapy among patients with a PD. No clusters of patients showing deterioration during EMDR therapy could be identified. Conversely, one cluster of patients in the waitlist condition showed deterioration, while another cluster of patients showed a slight spontaneous improvement. This is in accordance with other studies showing individuals with a PD diagnosis that deteriorate while on the waitlist condition (Lieb et al, 2004; Mitchell & Selmes, 2007), while other studies demonstrate improvement of these patients while on a waitlist (Álvarez-Tomás et al., 2019; Paris, 2002).

Although between-session exacerbations were found for patients in both the EMDR therapy and waitlist control groups, psychological distress exacerbation occurred in only one patient in the EMDR



group versus four patients in the control condition, posttreatment versus baseline. Furthermore, in the EMDR group only one of the 50 patients showed an increase in suicidal thoughts measured from baseline to post-treatment, versus five of the 46 patients in the WL group. These findings are in line with a study of individuals with long-standing psychotic disorders and comorbidities, including substance abuse, depression, and suicidal ideation, which showed that twice as many participants in the waiting list condition showed symptom exacerbation compared with those who received trauma-focused treatment (PE or EMDR therapy; Van den Berg et al., 2016). In this multicentre randomized controlled trial, symptom exacerbation during EMDR therapy and PE was investigated in 99 participants with PTSD and psychosis. Although between-session exacerbations were relatively common (46.5%; (PE:  $n = 20$ , EMDR:  $n = 26$ )), they were not related to a poor treatment response or dropout (Burger et al., 2023). Other studies that focused on the effects of trauma-focused treatment in PTSD (Foa et al., 2002; Larsen et al., 2016) found that even the patients who revealed symptom exacerbation experienced clinically significant improvement by the end of treatment and that symptom exacerbations were not related to treatment dropout. Furthermore, our results are consistent with the absence of an increase in suicide attempts and hospitalizations found in a series of uncontrolled studies on the effects of EMDR therapy on PTSD among patients with BPD and a meta-analysis regarding the efficacy of trauma-focused psychotherapy for PTSD in (B)PD (Slotema et al., 2019; Slotema et al., 2020; Wilhelmus et al., 2023). Moreover, a study in which patients with PTSD, and comorbid BPD, were treated with an intensive treatment track consisting of 16 treatment sessions within eight days, during which they received a combination of PE and EMDR therapy, did not find any indication of symptom exacerbation at the end of treatment or thereafter (De Jongh et al., 2020; Kolthof et al., 2022). These findings support the notion that trauma-focused psychotherapy for PTSD in PD patients is a safe and effective treatment option. A great reduction in symptoms was found in the first three sessions. In line with our case conceptualization, and findings of previous studies with EMDR therapy (e.g. Nijdam & Olff, 2016), it could be argued that most of the improvement is seen in the first sessions, as the traumatic memories that fuelled most symptoms had already been resolved. To further explore these findings, it would be useful to examine the effects when more treatment sessions are offered.

This study has some limitations that are worth noting. First, psychological functioning was measured weekly rather than daily. Therefore, it cannot be ruled out that the symptoms fluctuated during the week. Second, despite the follow-up measurement three months after EMDR treatment, the long-term

effects of EMDR therapy remain unclear. Furthermore, it is difficult to generalize the results to all PD clusters because the numbers in our sample were low. Related to this, it should be noted that cluster analyses tend to be sample-specific and caution should be taken when interpreting the obtained clusters (Twisk & Hoekstra, 2012). The identification of the clusters is not proof of the actual existence of distinct subpopulations. We chose our final number of clusters based on a careful combination of statistical fit and clinical interpretation, and therefore suggest replication of the analyses in larger samples to assess the robustness of the clusters. Another point that needs to be addressed is that patients with acute suicidality were excluded from this trial. Although this exclusion criterion is in line with a general precaution in studies with vulnerable patients, approximately 70% of patients in both groups had suicidality scores  $\geq 1$  on item 8 of the OQ-45, revealing that the majority of patients reported a clinically elevated level of suicidal thoughts at baseline. The notion that this does not have to be problematic is supported by the results of earlier randomized controlled studies examining individuals with severe forms of psychopathology that showed no indications of elevated risk for this target group (Burger et al., 2023). Furthermore, it was found that treating background trauma in patients in an acute mental health crisis led to improvements in general psychopathology and a reduction in suicidal ideation rather than an increase (Proudlock & Peris, 2020). In addition, a reduction in suicidal ideation and other symptoms of psychopathology was found among a complex population of patients with high suicidal ideation scores who received a short course of EMDR therapy (Burbach et al., 2023). Moreover, strong support for the safety of EMDR therapy is the finding that even directly targeting suicide intrusions have been found to be a safe and effective intervention (Van Bentum et al., 2019; van Bentum, 2024). Despite these results, knowledge regarding the safety of EMDR therapy in patients diagnosed with a PD and experiencing acute suicidal intention is limited. To bridge this knowledge gap, we are currently conducting a randomized controlled trial in which acute suicidality is no criterion for exclusion (Hofman et al., 2022).

In addition, as patients with PTSD were excluded, it is logically unknown whether treatment with EMDR might have resulted in different outcomes in patients with a PD and comorbid PTSD. However, more studies have shown that people who have been exposed to distressing life events that do not meet the A-criterion, report comparable levels of PTSD symptoms as people exposed to events that do meet the A-criterion (Anders et al., 2011; Gold et al., 2005). Lastly, because the patients in the control group did not receive any therapy from measurement moment one to five, it is uncertain whether the responses or the absence of adverse reactions to the

therapy are unique to EMDR therapy, or whether it is a common feature of (trauma-focused) psychotherapy in general. For future research, it would be valuable to use a more accurate measurement instrument for suicidality, such as the Beck Suicide Intention Scale (Beck et al., 1974), as well as for symptoms of a PD and PTSD. In addition, a larger sample of patients should be included and followed up for a longer time. We are currently conducting a RCT on the effects of EMDR in a large sample of various PDs with and without PTSD, with a one-year follow-up period (Hofman et al., 2022). In this study, the symptom severity of trauma and PDs were also measured before and after treatment.

This study had several strengths. The initial study (Hafkemeijer et al., 2020) was the first to investigate the effectiveness of EMDR therapy in patients with a PD, while comorbid PTSD was carefully excluded. This is clinically relevant because the majority of patients with a PD do not fulfil the criteria for PTSD, despite their exposure to a wide variety of adverse life events (Frias & Palma, 2015). Also, in an open population study it was found that stressful life events generated at least as many PTSD symptoms as traumatic events fulfilling the A criterion of PTSD (Mol et al., 2005). Demonstrating the efficacy of EMDR therapy for patients without a PTSD diagnosis could facilitate the availability of EMDR therapy for patients with memories of adverse events that do not fulfil the A criterion. The heterogeneity of the patient group (on admission) included in this study and the comparison with a control group makes the findings generalizable to, and relevant for, patients with a PD treated in specialized mental health care centres.

In conclusion, although some patients showed symptom deterioration between EMDR sessions, in only a small minority (2%) of the patients in the EMDR group, continuation of therapy following exacerbation led to an increase in psychological distress and suicidal thoughts from baseline to post-treatment. These results support the notion that, although individual exacerbations in psychological distress and suicidal thoughts are reported, they are less likely to occur in response to EMDR therapy than those receiving no therapy at all. These findings suggest that EMDR therapy is a safe treatment option for PD patients. To this end, it is our hope that the results of this study will make a valuable contribution to reducing existing fear or hesitation in treating PD patients with EMDR or other trauma-focused therapies.

## Disclosure statement

Prof. Dr. De Jongh reports personal fees from teaching activities, personal fees from books about trauma and its treatment (e.g. EMDR therapy), outside the submitted work; and has been a board member of the Dutch

EMDR Association, and the EMDR Europe Association. Prof. Dr. Slotema, Dr. Hoekstra, Dr. Starrenburg and Hafkemeijer MSc have nothing to disclose.

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