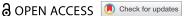




CLINICAL RESEARCH ARTICLE



Psychodynamic and systemic group treatment for women with a history of childhood sexual abuse: five-year follow-up of a randomized controlled trial

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ABSTRACT

Background: Childhood sexual abuse (CSA) is a significant trauma that may have lifelong impact. Due to the long-term negative personal and societal consequences of CSA, it is crucial to find treatments with enduring outcomes.

Objective: The aim of this study was to determine the relative long-term efficacy of psychodynamic and systemic group therapy for adult women exposed to CSA.

Method: A prospective randomized controlled trial was conducted with outcomes assessed at pre- and post-treatment, and 1 and 5 years post-treatment. All analyses were intention-totreat. One hundred and six women with sequelae from childhood sexual abuse were treated with psychodynamic or systemic group therapy. Primary outcome was Global Severity Index (GSI) of SCL-90-R. Secondary outcomes included symptoms of PTSD and depression and psycho-social functioning.

Results: Treatment was completed by 81% of participants; 64% completed the 1-year follow-up and 60% completed the 5-year follow-up. Completion rates did not differ between treatments. Significant reduction in symptoms measured on GSI and improvement of psychosocial functioning was found for both interventions at all measurement points after treatment (ES range = 0.68-1.19). However, different trajectories were observed: while outcome at end of treatment was significantly better in the systemic group, no differences in gains were observed at the 1- and 5-year follow-ups when controlling for baseline differences.

Conclusions: The findings add to the evidence base for psychodynamic and systemic group therapy, but the result also underscores the importance of taking post-treatment trajectories into account in evidence-based research, in the continued efforts to improve treatment for this population.

Tratamiento grupal psicodinámico y sistémico para mujeres con historial de abuso sexual en la infancia: seguimiento a cinco años de un ensayo controlado aleatorizado

Antecedentes: El abuso sexual en la infancia (ASI) es un trauma significativo que puede tener un impacto para toda la vida. Dadas las consecuencias negativas personales y sociales del ASI, es crucial encontrar tratamientos con resultados sostenidamente positivos.

Objetivo: El objetivo de este estudio fue determinar la eficacia relativa a largo plazo de la terapia grupal psicodinámica y sistémica para mujeres adultas expuestas a ASI.

Método: Se realizó un ensayo controlado aleatorizado prospectivo, con evaluaciones pre y post tratamiento, y luego de 1 y 5 años post-tratamiento. Todos los análisis fueron por intención de tratar. Ciento seis mujeres con secuelas derivadas de abuso sexual en la infancia fueron tratadas con terapia grupal psicodinámica o sistémica. El resultado principal fue el índice global de severidad (IGS) del SCL-90-R. Los resultados secundarios incluyeron síntomas de TEPT y depresión, y funcionamiento psicosocial.

Resultados: El tratamiento fue completado por 81% de los participantes; 64% de ellos completó el seguimiento luego de un año, y 60% completó el seguimiento luego de cinco años. Se encontró una reducción significativa de síntomas medidos a través del IGS, además de un mejoramiento del funcionamiento psicosocial, en ambas intervenciones y en todo momento de evaluación post-tratamiento (ES rango = 0.68-1.19). No obstante, se observaron diferentes trayectorias: aunque el resultado al final del tratamiento era significativamente mejor en el grupo sistémico, no se observaron diferencias de ganancias en los seguimientos de 1 y 5 años, controlando las diferencias base.

Conclusiones: Los hallazgos contribuyen a la evidencia basal para terapia grupal psicodinámica y sistémica, pero los resultados también resaltan la relevancia de considerar las trayectorias post-tratamiento en la investigación basada en evidencia, como parte de los esfuerzos para mejorar los tratamientos para esta población.

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PALABRAS CLAVE

Abuso sexual infantil: psicoterapia grupal; resultados; seguimiento; psicodinámico; sistémico; aleatorizado; ensayo

童年期性虐待; 团体心理 治疗; 结果; 随访; 心理动 力学; 系统; 随机; 试验

HIGHLIGHTS

- We compared psychodynamic and systemic group therapy for adult survivors of childhood sexual abuse.
- · At the end of treatment. systemic therapy had better outcomes than dynamic therapy, but there were no differences after 1 and 5 years. Both groups improved at all time points.

对有童年期性虐待史女性的心理动力学和系统团体治疗: 一项随机对照试 验的五年随访

背景:童年期性虐待 (CSA) 是一种可能有终身影响的严重创伤。由于CSA对个人和社会的长 期负面影响,找到持续效果高的治疗方法至关重要。

目的:本研究旨在确定心理动力学和系统团体治疗对遭受CSA的成年女性的相对长期疗效。 方法:进行了一项前瞻性随机对照试验,在治疗前,后以及治疗后一年和五年对结果进行评估。所有分析均为意向性分析。 166名有童年期性虐待后遗症的女性接受了心理动力学或 系统团体治疗。主要结果是SCL-90-R测量的整体严重程度指数 (GSI) 。次要结果包括PTSD, 抑郁症状以及心理社会功能。

结果:参与者中81%完成了治疗 64%完成了1年后的随访, 60%完成了5年后的随访。治疗间 的完成率无差异。在治疗后的所有测量点,两种干预措施的GSI症状均显著减轻,心理社会 功能得到改善 (ES范围= 0.68-1.19) 。但是, 观察到了不同轨迹:尽管治疗结束时系统组的结 果明显更好,但控制基线差异时,在1年和5年随访中未观察到获益的差异

结论:这些发现增加了心理动力学和系统团体治疗的证据基础, 但结果也强调了在循证研究 中考虑治疗后轨迹, 持续努力提高针对此群体治疗的重要性。

A large number of studies have established a link between childhood sexual abuse (CSA) and various mental disorders in adolescents and adults, including increased risk of developing depression and Post-Traumatic Stress Disorder (PTSD) related to the victimization and/or revictimization experiences (cf. Hailes, Yu, Danese, & Fazel, 2019; Kendler & Aggen, 2014).

Several reviews indicate that both individual and group psychotherapy are efficient in the treatment of women with a history of CSA and that effects are generally sustained at follow-up (Callahan, Price, & Hilsenroth, 2004; Dorrepaal et al., 2014; Ehring et al., 2014; Kline, Cooper, Rytwinksi, & Feeny, 2018; Taylor & Harvey, 2010). With regard to the therapeutic approach and modality, Ehring et al. (2014) found that trauma-focused treatments had significantly better results than non-trauma-focused both from pre- to post-treatment and from posttreatment to follow-up and, furthermore, that therapy comprising individual sessions showed significantly higher pre-post effect sizes that pure group treatment.

However, while a substantial evidence-base for the effectiveness of psychotherapy for women with a history of CSA exists, only very few outcome studies of psychodynamically oriented and systemic therapy delivered in a group format have been conducted. One randomized controlled trial of dynamically oriented therapy (Alexander, Neimeyer, Follette, Moore, & Harter, 1989) found that both interpersonal process group therapy and a more structured interpersonal transaction group therapy were more efficacious in relieving symptoms and improving social adjustment than a wait list control group. Gains were maintained at 6-month follow-up. Likewise, Krupnick et al. (2008) found that group interpersonal psychotherapy was significantly more effective than a wait list condition in reducing PTSD and depression symptom severity, both at end-of-treatment and at 4 months follow-up. A number of quasi-experimental and observational studies of interpersonal and dynamic/analytic group psychotherapy (Carver, Stalker, Stewart, & Abraham, 1989; Cloitre & Koenen, 2001; Longstreth, Mason, Schreiber, & Tsao-Wei, 1998; Lundqvist, Svedin, Hansson, & Broman, 2006; Sharpe, Selley, Low, & Hall, 2001) all indicate beneficial post-treatment and longer-term (up to 2 years) outcomes although the effect sizes vary widely between studies and measures. Another approach with a very limited evidence-base as a treatment for sexual abuse is systemic therapy (i.e. psychotherapy focusing not only on the individual but on the family system and social context in which the individual takes part). To our knowledge, only three prior studies of group psychotherapy conducted within a systemic framework exist for women suffering from CSA, all with quasi-experimental pre-post design and stemming from the same research group (Kreidler, 2005; Kreidler & Einsporn, 2012; Kreidler, Einsporn, Zupancic, & Masterson, 1999). While these studies show promising results, rigorous treatment trials, in particular trials reporting long-term followup data, are clearly needed.

The need for the assessment of long-term effects of psychotherapy for women with a history of CSA is further stressed by the findings of studies of mental health status in women with CSA after psychotherapy. In a study of individual dynamically oriented psychotherapy (mean follow-up-period 5.1 years), Peleikis, Mykletun, and Dahl (2005) found that 95% of the participants with a history of CSA were still diagnosed with a mental disorder, 50% had PTSD, 20% had major depression and the mean global assessment of functioning score was 61.8 ± 10.6. Correspondingly, Earley et al. (2014) found that 30% of the participants in a study of a mindfulnessbased stress reduction programme for adult survivors of childhood sexual abuse still met the criteria for PTSD 2½ years after completing treatment. The results indicate that a substantial group of patients may be in need of further treatment several years after completing psychotherapy for CSA.

The present article is to the best of our knowledge the first ever to report 5-year follow-up data from a randomized controlled trial comparing psychodynamic and systemic outpatient group psychotherapy for women with a history of childhood sexual abuse. In two previous articles (Elkjaer, Kristensen, Mortensen, Poulsen, & Lau, 2014; Lau & Kristensen, 2007), we reported that both treatments were followed by reductions in general psychiatric symptoms measured with the GSI from the Symptom Checklist-90-R (SCL-90-R) and improved psychosocial functioning both immediately after treatment and at 1-year follow-up. Post-treatment, systemic group therapy had a superior outcome compared to psychodynamic group therapy, whereas no differences were found at 1-year follow-up.

The aims of the present study were:

- (1) To compare the effectiveness of psychodynamic and systemic outpatient group psychotherapy in reducing mental symptoms and improving psychosocial functioning from baseline to 5 years after the end of each treatment, and to explore and compare the two treatments with respect to trajectories of mental symptoms over time.
- (2) To explore the prevalence of PTSD and depression 5 years after completed psychotherapy among women with a history of CSA.

1. Method

1.1. Design

The study was a randomized, controlled trial with pre-post-follow-up design conducted at an outpatient clinic for patients with non-psychotic disorders. The study was approved by the National Committee on Health Research Ethics (approval number KA-97,007-M). Intake took place from September 1998 to February 2001. All participants provided written consent upon receiving a written and oral description of the study. There were four main assessment points: at baseline, at the end of each treatment (i.e. after 5 months of systemic group psychotherapy or 12 months of psychodynamic group psychotherapy), and 1 and 5 years after completing treatment. At follow-up assessments, questionnaires were mailed with a stamped and addressed return envelope. If a questionnaire was not returned within two weeks, a new questionnaire and a reminder letter were mailed to the participant. This procedure was repeated as needed in order to obtain as complete follow-up data as possible. The design is described in detail in previous publications (Elkjaer et al., 2014; Lau & Kristensen, 2007).

1.2. Participants

Included in the trial were women, 18 years or older, who had prolonged psychiatric symptoms related to a history of intrafamilial CSA, and who gave written informed consent to participate in the trial. Intrafamilial CSA was defined as having any sexual contact before age 16 with a biological relative or non-biological family member, meeting the following definitions: (a) Sexual abuse with physical contact but without penetration (kissing, touching, fondling of genitals) or (b) sexual abuse with vaginal, oral and/ or anal penetration.

Exclusion criteria were: no clear recollection of the sexual abuse, exposure to CSA without physical contact (e.g. indecent exposure, photographing, or 'talking dirty'), pregnancy, suicidality, psychosis, mental or organic impairment, and current alcohol or drug abuse. The participant flow through the study is depicted in Figure 1.

1.3. Treatments

Patients were randomly allocated to one of two specialized incest treatment groups: (a) Psychodynamic group psychotherapy or (b) Systemic group psychotherapy. Both groups were rolling outpatient groups, i.e. whenever a patient completed treatment, a new patient entered the group. Each group was led by two therapists who were trained in the specific treatment modality and experienced in the treatment of women suffering with sequelae from CSA. Therapy within each treatment modality was monitored on a regular basis by a certified supervisor to ensure that the therapeutic model was followed. The patients did not receive any other psychotherapeutic treatment, but were allowed 1-3 complementary consultations either as individual sessions or with their partner or family.

1.3.1. Psychodynamic group psychotherapy

Patients allocated to this treatment modality received one weekly session (2.25 hours) for 12 months $(46.3 \pm 15.3 \text{ weeks and } 104.2 \pm 34.5 \text{ hours}).$ Treatment was based on the theory of group analysis (Foulkes, 1986). In the original formulation of group analysis, therapists only provide relatively little structure and rely mostly on interpretations to promote the process. However, a slightly modified version was provided for the special population in this study, where the therapists adopted a more active position in order to provide a more supportive and structured setting. The therapy group was intended to function as a holding environment, representing a healthy 'family', and thus provided the possibilities to repair internalized thoughts and emotions related to safety, trust, power self-esteem and intimacy (Allen &

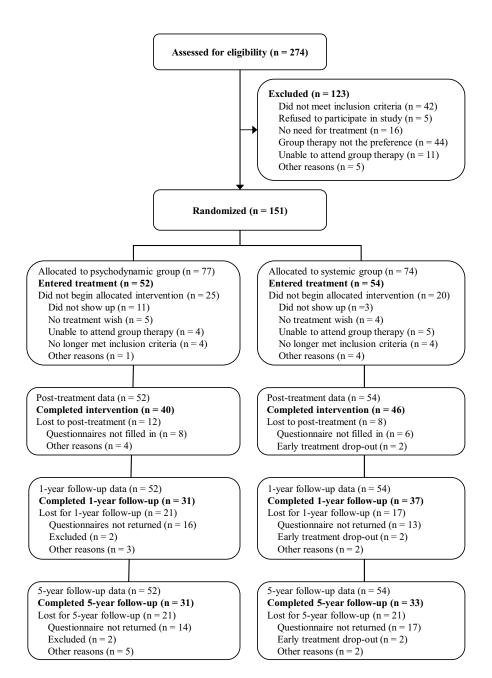


Figure 1. Participant flow chart.

Bloom, 1994). The goals of the groups were defined as working with the trauma, improving interpersonal relations and promoting better personality integration. Following the principles of group analysis, the patients decided themselves what they wanted to bring up in the group. Still, the specific traumas were addressed, first when the patients presented their abuse history in their initial session, and through the course of the group where patients shared their traumatic experiences and the painful and disturbing affects related to these. After listening to these individual stories of abuse, group members would share their reactions and the therapists would assist the group in providing a 'holding environment' where the emotional impact of these shared stories of abuse could be processed. Furthermore, the therapists helped the patients in understanding the impact of their traumatic experiences on their identity formation and present relationships.

1.3.2. Systemic group psychotherapy

Patients allocated to this treatment modality received two weekly sessions (5.0 hours) for 5 months (17.1 \pm 5.4 weeks and 85.4 \pm 27.1 hours). Treatment was based on systemic theory (Holme, 1999) and was solution focused (de Shazer, 1991), focusing primarily on the present problems related to the abuse rather than on a detailed presentation of past traumatic experiences. All patients talked about their traumatic experiences in their initial introduction to the group. Subsequently, while the individual experiences of abuse were not necessarily brought up by the

therapists, they were discussed when the participants brought them up. For instance, clients experiencing disturbing flashbacks of traumatic experiences were advised to imagine different, more positive outcomes of past traumas, such as being able to defend themselves or enlisting the help from another person. Likewise, current problems such as feelings of guilt and self-reproach in relation to the sexual abuse and lack of trust in one's own judgement were discussed with the patients and understood as consequences of the impossible dilemmas victims of childhood sexual abuse have been placed in.

The setting was highly structured and incorporated 1 hour of psycho-education every second week. The themes of the psycho-education were chosen following the requests of the patients and could be, e.g. normal psycho-sexual development, current relationships to parents, legal issues related to CSA, and problems related to own children. There were fixed procedures for initiation and termination of sessions. Treatment was provided as individual treatment in the group and duration of speech-time was fixed. At the start of each session, it was determined who were to speak that day and in which order. Following each individual's dialogue with the therapists and the group, a 'reflection round' was introduced where the other group members shared their thoughts regarding the situation of the individual.

1.4. Measures

1.4.1. Assessment of sexual abuse

Child sexual abuse questionnaire (CSA-Q). CSA-Q is a self-report questionnaire with questions about CSA history including number of offenders, relationship between the child and the offender(s), the sex of the offender(s), and the severity, onset and length of CSA. The CSA-Q was developed for this study and was administered at baseline only.

1.4.2. Primary outcome measure

Symptom Checklist-90-R (SCL-90-R) (Derogatis, 1994) is a 90-item self-report inventory assessing general psychiatric symptomatology on nine primary symptom dimensions, which was administered at all four assessment points. The SCL-90-R Global Severity Index (GSI) is the mean of all item scores and provides a measure of the current overall level of psychological distress. In the reference sample, Cronbach's alpha for GSI of the Danish version of SCL-90-R was 0.97 and it was 0.97 in the present clinical sample. Cut-off for caseness on GSI in the Danish reference sample was 1.08 (Olsen, Mortensen, & Bech, 2006).

SCL-90-R includes several subscales, among these the Depression subscale (DEP) and the Crime-Related Post-Traumatic Stress Disorder (CR-PTSD). DEP is a 13-item subscale indicating depressive symptoms and CR-PTSD a 28-item subscale with higher scores

indicating higher levels of PTSD (Saunders, Arata, & Kilpatrick, 1990). For the present clinical sample, Cronbach's alpha for CR-PTSD was 0.91 and for DEP 0.87. While both scales might have been of relevance to the present study, based on the data analyses we decided to refrain from reporting specific results for DEP and CR-PTSD since both scales correlated highly with the GSI: CR-PTSD and GSI, r = 0.98; CR-PTSD and DEP, r = 0.91; GSI and DEP, r = 0.94. Accordingly, GSI may be interpreted as an indicator of the symptom load from post-traumatic stress and depression.

1.4.3. Secondary outcome measure

The Global Assessment of Functioning (GAF) (American Psychiatric Association, 2000a) is a single-item measure of overall psychosocial functioning during the preceding month. The score ranges between 1 and 100 with 100 indicating optimal functioning. Research has demonstrated GAF to be a reliable and valid measure (American Psychiatric Association, 2000b). In the present study, a self-report version with separate scores on social and mental functioning was used (Bodlund, Kullgren, Ekselius, Lindstrom, & von Knorring, 1994). The lower of the two scores was used to assess psychosocial functioning. The patient self-report version of the GAF scale has been reported to correlate 0.62 with experts' ratings (Bodlund et al., 1994). A subsequent study found that ICC coefficients between staff members' and patients' GAF ratings before and after treatment were 0.65 and 0.86, respectively (Ramirez, Ekselius, & Ramklint, 2008).

1.4.4. Additional follow-up measures

Two measures were only administered at the 5-year follow-up:

PTSD CheckList - Civilian Version (PCL-C) (Ruggiero, Del, Scotti, & Rabalais, 2003) is a 17item self-report measure reflecting DSM-IV symptoms of PTSD and providing both information on PTSD diagnosis and severity. The PLC-C total symptom severity score, which ranges from 17 to 85, is used in this study. Higher scores indicate higher level of PTSD symptoms. Cronbach's alpha of the PCL-C was 0.94 in this sample. The correlation between the PCL-C score and GSI score was 0.92.

Major Depression Inventory (MDI) (Olsen, Jensen, Noerholm, Martiny, & Bech, 2003) is a 10-item depression rating scale measuring the symptoms included in both ICD-10 and DSM-IV. MDI can be scored using a diagnostic algorithm to derive a depression diagnosis and as a depression severity scale by calculating a sum score, ranging from 0 to 50. A sum score of 26 or more indicates depression of moderate to severe degree. Cronbach's alpha for the MDI depression scale was 0.94 in this sample. Both the GSI and the DEPsubscale of SCL-90-R showed a moderate correlation with the MDI-total score: GSI and MDI-total, r = 0.63; DEP and MDI-total, r = 0.67.

1.5. Statistical analysis

Statistical analysis was conducted using Stata 16 (StataCorp, 2019). First, chi-square test and Mann-Whitney tests were conducted to examine demographic data and CSA data at baseline for the psychodynamic and systemic groups. Second, Stata's procedure mixed was used to analyse GSI scores of the two groups at all four follow-ups (baseline, post-treatment.1-year followup and 5-year follow-up). In this model, which at each assessment includes all available data, the main effect of group corresponds to group differences in the overall mean calculated from the four assessments, and the main effect of assessment time corresponds to differences between assessments for the combined total sample. To evaluate group differences in mean scores over time interactions between the group factor and time of assessment were tested, and if significant followed by tests of group differences at each assessment.

Since the two treatment groups differed at baseline, analyses were also conducted of each posttreatment assessment with adjustment for baseline scores. To include all available observations these analyses were conducted using Stata's sem procedure with the FIML option, which use all available data at baseline and at the outcome assessment.

One-way analysis of variance (ANOVA) was used to compare group means of the PCL-C, MDI, and GSI scores.

2. Results

2.1. Sample characteristics

One hundred and fifty-one women were accepted for the study and randomized. At intake, there were no statistically significant differences on the outcome measures between the two groups. For various reasons, including having to wait for several months before entering therapy, only 106 began the allocated treatment and 86 women (81%) completed treatment. At baseline (start of therapy), a small but statistically significant difference in the GSI score was observed. There were no differences in psychosocial functioning at the beginning of therapy (Table 1).

One-year and 5-year follow-up outcome data were available for 68 (64%) and 64 (60%) women, respectively. No significant difference was found in baseline scores between participants who completed the 5-year follow-up and those who did not. Of the participating women, 56 (53%) had available outcome data for all four time-points (see Figure 1 for flow chart).

The women had a mean age of 34.3 years (SD = 10.1, range = 19-57). Forty-three women (41.3%) were co-habitant, and 45 (43.3%) had children living in the home. One-third of the women were on full- or part-time sick leave (36.8%). The mean age at CSA onset was 5.9 years (SD = 3.1, range 0-13) and mean duration of CSA was 7.2 years (SD = 4.4, range = 0-24). The participants reported between one and five offenders (mean = 1.6, SD = 0.9). Two-thirds of the patients reported oral, anal and/or vaginal penetration (n = 70). Psychiatric diagnoses according to ICD-10 (World Health Organization, 1992) obtained through psychiatric interviews were distributed as follows (n (%)): F0-39: Affective disorders, n = 10 (9.4%); F40–41: Anxiety disorders, n = 15 (14.2%); F43: PTSD and adjustment disorders, n = 25 (23.6%); F42 and F44– 49: Other nervous diseases, n = 4 (3.8%); F50–59: Behavioural syndromes, n = 3 (2.8%) and F60-62: Personality disorders, n = 49 (46.2%). No statistically significant differences were seen on demographic data and trauma history between the two study groups at baseline, neither were there any statistically significant differences on these variables post-treatment or at 1- or 5-year follow-up for completers. For detailed information, we refer to the previous reports of the study (Elkjaer et al., 2014; Lau & Kristensen, 2007). At the 5-year follow-up, no differences between treatment groups were observed with regard to the number of patients who had received at least five sessions of psychiatric and/or psychotherapeutic treatment during the follow-up period (psychodynamic group: 35.5%; systemic group: 40.6%).

2.2. Changes in psychiatric symptoms and functioning

Table 1 presents the observed means and standard deviations for GSI- and GAF-scores with withingroup effect sizes for both the psychodynamic and systemic groups. The within-group effect sizes reflect differences between the baseline and follow-up scores, and these effect sizes were medium to large, both at end-of-treatment and at 1- and 5-year follow up.

Table 2 presents the estimated mean and standard errors for the statistical models. In the mixed-effects model, for the GSI scores both main effects and the interaction between group and time of assessment were significant (p = 0.018). The main effect of group reflected higher overall mean scores of all four assessments in the psychodynamic group while the main effect of time of assessment reflected higher scores at baseline than the three remaining assessments (there were no significant differences between the mean scores of the post-treatment follow-up, the 1-year follow-up and the 5-year follow-up). The

Table 1. Observed means and standard deviations for GSI- and GAF-scores (at baseline, post-treatment, 1-year follow-up and 5-year follow-up) and results of the regression.

		Psyc	chodynamic gro	oup		Systemi	c group		
Measures		Mean	SD	ES*	N	Mean	SD	ES*	n
GSI (0-4)	Baseline	1.89	0.73		52	1.60	0.61		54
	Post-treatment	1.43	0.67	0.68	40	0.79	0.52	1.19	45
	1-year follow-up	1.39	0.84	0.74	31	1.06	0.79	0.79	37
	5-year follow-up	1.23	0.79	0.97	31	0.89	0.72	1.04	33
GAF (1–100)	Baseline	52.98	11.44		49	54.39	13.85		52
	Post-treatment	63.95	11.97	0.88	39	71.35	13.43	1.37	46
	1-year follow-up	63.48	13.67	0.85	31	69.19	19.35	1.19	37
	5-year follow-up	64.55	16.50	0.93	31	70.86	20.58	1.32	33

GSI, Global Severity Index from the Symptom Checklist-90-Revised (SCL-90-R); GAF, Global Assessment of Functioning.

Table 2. Estimated means and standard errors for GSI- and GAF-scores (at baseline, post-treatment, 1-year follow-up and 5-year follow-up) and estimated group differences with p-values.

		Psychodyna (n =	<i>y</i> , <i>y</i> .					
Measures		Mean	SE	Mean	SE	Difference	Adj. difference(p)	ES*
GSI (0-4)	Baseline	1.89	0.10	1.60	0.08	-0.29 (p = 0.026)		
	Post-treatment	1.46	0.10	0.81	0.08	-0.65 (p < 0.001)	-0.52 (p < 0.001)	0.75
	1-year follow-up	1.35	0.14	1.08	0.12	-0.27 (p = 0.139)	$-0.13 \ (p = 0.46)$	0.19
	5-year follow-up	1.25	0.13	0.88	0.11	-0.37 (p = 0.036)	-0.17 (p = 0.23)	0.25
GAF (1–100)	Baseline	53.04	1.63	54.38	1.84	$1.34 \ (p = 0.584)$		
	Post-treatment	63.78	1.91	71.33	1.96	$7.56 \ (p = 0.006)$	-7.26 (p = 0.008)	0.58
	1-year follow-up	63.61	2.45	68.88	3.06	5.27 (p = 0.179)	-5.32 (p = 0.170)	0.43
	5-year follow-up	63.57	2.96	70.45	3.41	$6.88 \ (p = 0.127)$	-6.77 (p = 0.129)	0.55

GSI, Global Severity Index from the Symptom Checklist-90-Revised (SCL-90-R); GAF, Global Assessment of Functioning; Estimates of means, SE and unadjusted differences are from a mixed model including group and time of assessment as fixed effects while the adjusted differences are from a FIML analysis including baseline score and group as predictors of post-treatment assessments.

significant interaction primarily reflected a larger decline in scores from baseline to post-treatment assessment for the systemic group compared with the psychodynamic group. The group difference was largest at post-treatment, decreased to baseline levels at the 1-year follow-up, and increased slightly to become significant at the 5-year follow-up (see Figure 2).

The analyses adjusting for baseline score showed significant post-treatment group differences on the GSI-scores, while no significant group differences

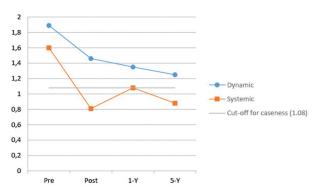


Figure 2. Global severity index (0-4) values across the four time-points for psychodynamic and systemic group therapy (estimated means).

were found at the 1- and 5-year follow-ups (see Table 2). The within-group effect sizes in Table 1 suggest slightly larger differences between baseline and follow-up scores in the systemic group, but Table 2 shows that the difference between the two groups was only significant for the post-treatment scores with an adjusted between-group effect size of 0.75.

Similar to the outcomes on the GSI, in the mixedeffects model significant main effects of both group and time were observed for the GAF-scores reflecting lower overall mean scores of all four assessments in the psychodynamic group and lower scores at baseline than at the three remaining assessments. However, for the GAF-scores the interaction between group and time was not significant (p = 0.321) and significant differences in outcome between the two treatment groups were only observed post-treatment (between group effect size = 0.58), but not at any other measurement point. A similar pattern was observed in the analyses adjusting for baseline score.

Despite overall significant improvement, an intention-to-treat analysis substituting missing data through the Last Observation Carried Forwardmethod showed that more than half (51.9%) of the patients were still above the cut-off for caseness for GSI 5 years after discharge. There was no significant

The estimated effect sizes are within-group differences in scores between baseline and the three follow-ups (the estimated change was divided by the baseline sample standard deviation).

^{*} The estimated effect sizes are between-group effect sizes reflecting group differences in score change between follow-ups (the estimated adjusted group difference was divided by the baseline sample standard deviation).



difference with regard to the frequency of patients above the cut-off for caseness between the two groups (psychodynamic group, 21 below/31 above cut-off; systemic group, 30 below/24 above cut-off, $\chi^2 = 2.44, p = 0.118$).

2.3. Post-traumatic stress symptoms

At the 5-year follow-up, 18 women (28% of 64 completed questionnaires) met the diagnostic criteria for PTSD according to the PCL-C. The PCL-C total sum score for the whole sample was 37.06 (15.38). The systemic group scored lower than the psychodynamic both on the total sum score and on the various subscales, but the difference was only statistically significant for the Intrusion-score (Table 3).

To evaluate the representativeness of the sample with completed 5-year follow-up data on PCL-C, we examined whether GSI-scores from previous measurement points differed between patients who completed the 5-year follow-up and those who did not return the 5-year follow-up questionnaire. No differences were seen in GSI scores at any assessment points (Table 4).

2.4. Depression symptoms

According to the MDI, only two participants (3%) met the criteria for an ICD-10 diagnosis of moderate to severe depression and only three participants had a sum score on 26 or more on the MDI. The MDI sum score for the whole sample was 12.81 (7.26) and there were no significant differences between the two treatment groups: psychodynamic group 14.00 (7.28) and systemic group 11.70 (7.18), p = 0.81.

3. Discussion

The results indicate that general psychiatric symptoms measured with the GSI from the SCL-90-R decreased after treatment in both intervention groups

Table 3. PCL-C scores at 5-year follow-up.

	Psychodynamic group $N = 31$	Systemic group N = 33	р
PCL-Total sum score	40.10 (15.31)	34.21 (15.11)	ns
-Intrusion score	12.06 (5.21)	9.45 (4.71)	0.04
-Avoidance score	15.03 (6.36)	13.27 (6.73)	ns
-Arousal score	13.00 (5.40)	11.48 (5.12)	ns

PCL-C, PTSD CheckList - Civilian Version.

Table 4. GSI-scores for patients who filled out PCL-C at 5-year follow-up and those missing at 5-year.

Measures	Completer data $N = 64$	Missing data $N = 42$	р
GSI-Baseline	1.70 (0.65)	1.82 (0.73)	ns
GSI-Post treatment	1.14 (0.67)	0.96 (0.70)	ns
GSI-1 year score	1.18 (0.80)	1.33 (0.97)	ns

GSI, Global Severity Index from the Symptom Checklist-90-Revised (SCL-90-R); PCL-C, PTSD CheckList - Civilian Version.

but scores were significantly higher in the psychodynamic therapy group at the baseline, post-treatment and 5-year follow-up. However, the analyses adjusting for baseline score showed significant group differences only post-treatment, but not at the 1- and 5-year follow-ups. A similar pattern with significant differences post-treatment but no significant differences at the 1- and 5-year follow-ups were observed with regard to the GAF-scores. Five years after completing treatment, a substantial amount of the patients (28%) met the criteria for PTSD as measured by the PCL-C, but only very few patients (3%) met the ICD-10 criteria for depression as measured by the MDI. Scores on the Intrusion subscale of the PCL-C were significantly lower in the systemic group, which correspond with our finding post-treatment where the frequencies of flashbacks remained unchanged for the psychodynamic group but improved significantly in the systemic group (Lau & Kristensen, 2007).

Based on the results it seems reasonable to conclude that while systemic group therapy results in a significantly faster improvement of symptoms, there are no discernible differences in the long-term effects of psychodynamic and systemic group therapy for women with a history of CSA. The deterioration in symptom status measured by the GSI observed in the systemic group in the period from completing treatment to 1-year follow-up had not continued at 5-year follow-up and both groups had maintained the improvements compared to baseline scores that were observed at the 1-year follow-up with a nonsignificant tendency towards further progression in both groups. The level of psychosocial functioning remained stable in both groups from post-treatment to 5-year follow-up. It is, however, important to note that the results of systemic group therapy were achieved with nearly 20 hours less per patient, indicating that systemic group therapy for women with a history of CSA may be more cost-efficient that psychodynamic group therapy.

As previously suggested (Elkjaer et al., 2014), it is possible that the faster reduction in symptoms after systemic therapy may be a consequence of the more structured and solution-oriented approach characteristic of this treatment. This may be supported by a supplementary study of how the patients experienced the group milieu of the systemic and psychodynamic groups, showing that the systemic group was evaluated by the patients as both more structured and more supportive than the psychodynamic group (Lau & Kristensen, 2012). Furthermore, the fact that the systemic therapy was delivered in a more concentrated format where groups met twice a week over 5 months whereas the psychodynamic groups meet once weekly over a year may have provided a more intensive boost towards recovery leading to a more marked immediate effect. It is of interest that the prepost within-group effect size of the systemic group (d = 1.43) is markedly higher than the overall prepost effect size for global symptom measures reported in a meta-analysis (Taylor & Harvey, 2010) (g = 0.60). It is, furthermore, similar to the overall pre-post effect size for PTSD symptoms specifically for trauma-focused treatments (Ehring et al., 2014) (g = 1.38). Thus, in the short term, even though it may be debated whether the systemic group therapy qualify as a trauma-focused treatment it appeared to attain an outcome at end-of-treatment comparable to specifically trauma-focused approaches.

On the other hand, the deterioration in symptomatic status in the systemic group in the year after completing treatment may indicate that patients had not been sufficiently prepared for the loss of the group as a source of support. The guidelines for the treatment of complex trauma completed by a task force of the International Society for Traumatic Stress Studies (Cloitre et al., 2012) recommend that treatment is organized in three phases, where phase 1 focuses on symptom reduction and stabilization as well as safety and skills building, phase 2 is dedicated to the treatment of traumatic memories, and phase 3 involves the consolidation of treatment gains and relationships, work or education, and community life outside of the treatment context. It is conceivable that the third and final phase had not been sufficiently developed in the systemic group resulting in a precipitous transition to everyday life where the patients have been left to mobilize their own resources to cope with the loss of the group. Alternatively, the deterioration in symptom status in the systemic group may indicate that the treatment was not sufficiently focused on the traumatic experiences of the patients. This explanation may be supported by the finding of a meta-analysis (Ehring et al., 2014) that traumafocused therapies showed markedly higher pre to follow-up effect sizes (in studies with at least a six months follow-up period) (g = 1.68) than the systemic group in the present study at 1-year follow-up (d = 0.77).

While the study shows an overall improvement in both treatment groups, a substantial proportion of the participants still present severe symptoms of PTSD even following the relatively intensive treatment. The lack of a specific PTSD-measure at baseline prohibits a direct comparison of PTSD symptoms before and after treatment. However, the high correlation between PCL-C and GSI suggests that GSI to some extent measures the level of PTSD symptoms in this sample. To the extent that this is correct, the significant reduction in the GSI scores indicates that the treatments may have had a positive effect on PTSD-symptoms as well, but the high prevalence of PTSD-symptoms at 5-year follow-up demonstrates a continued need for treatment in a large sub-sample of the patients. The fact that 51.9% of the patients were still above the cut-off for caseness on the

GSI 5 years after ending their treatments further suggests that while the treatments may have been successful in reducing the symptom load of the patients, additional treatment is indicated for a substantial number of patients. Regular symptom monitoring during treatment might enable the identification of patients who do not improve sufficiently, or even deteriorate during treatment (Gondek, Edbrooke-Childs, Fink, Deighton, & Wolpert, 2016), and who might benefit from alternative or longer treatment. Likewise, a stronger focus on following the patients after the termination of treatment with regular contacts and continued monitoring of symptoms and level of functioning would have allowed for supplementary treatment efforts addressed specifically to those patients who did not maintain treatment gains. Additionally, it may be considered whether future outcomes might be improved by allowing patients to choose between the treatments investigated in the present study, based on an information of the different approaches and the outcomes found in the study.

An important question in relation to the findings of the present study is whether the decrease in symptoms is attributable to the treatments or should rather be interpreted as a consequence of natural remission of symptoms. An Australian study (N = 8,841) shows that across trauma types more than a third of persons diagnosed with PTSD will continue to have symptoms 30 years after onset and that childhood trauma is associated with a decreased likelihood of or longer time to remission from PTSD (hazard ratio = 0.4) (Chapman et al., 2012). Furthermore, as previously noted, existing long-term follow-up studies of psychotherapy for women with a history of CSA showed prevalence rates of the diagnosis of PTSD at 30% and 50%, respectively (Earley et al., 2014; Peleikis et al., 2005). Thus, the prevalence rate of 28% of the participants meeting the criteria for a PTSD-diagnosis 5 years after treatment appears to be lower than what would be expected as a consequence of the natural course of remission and to compare favourably with other treatment studies. With regard to residual symptoms of depression, the prevalence rate of 3% in the present sample appears to be markedly lower than the 20% found in the study conducted by Peleikis et al. (2005). Obviously, since patients are drawn from different populations in the various studies and various methods for making the diagnoses of PTSD and depression have been used, no firm conclusions about the relative effectiveness of the treatments of the present study can be drawn.

A final consideration is the potential impact of the organization of treatment in the present study. Since the groups had a rolling admissions structure with new members being admitted whenever a group member completed the treatment, group members did not follow the phases of treatment outlined in the ISTSS guidelines (Cloitre et al., 2012) simultaneously. On the contrary, in both groups at any given point in time some patients worked primarily on symptom reduction, skills for containment and emotional stabilization while others worked with traumatic memories. It is conceivable that group participation, as a result of this, may have been experienced as overwhelming to more recent members of the group while the progress of those who were ready for focused work on traumatic memories may have been impeded by the lack of homogeneity among the group members. Thus, it is possible that the overall outcome of the groups would have been higher if the duration of groups had been fixed with all members beginning and completing the group together.

The present study has a number of strengths, among these the randomized controlled design and the long follow-up period, which is, to the best of our knowledge, unique among studies within this field of research. However, the study is characterized by certain limitations as well. First of all, the fact that randomized patients without baseline data could not be included in the statistical analyses is a limitation in the intention-to-treat analysis. Furthermore, the lack of a proper control condition exposed to no treatment or treatment as usual makes it impossible to conclude that the improvement in symptomatic status and psychosocial functioning was an effect of treatment rather than a result of spontaneous recovery. Additionally, a consequence of excluding suicidal patients and patients with drug or alcohol abuse may have been that the sample treated in the present study were relatively less impaired and thus not fully representative of individuals seeking help for childhood sexual abuse. With regard to the measurement of symptoms, even though the GSI gives an indication of the overall level of symptom load at baseline, we lack measures at baseline, post-treatment and at 1-year follow-up specifically developed for assessment of depression and PTSD. Furthermore, a number of other important outcomes common among women with a history of child sexual abuse, such as dissociation and non-suicidal self-injury, were not measured in the study.

Bearing in mind these limitations, the study indicates that both psychodynamic and systemic group therapy may be efficacious treatments for women with a history of childhood sexual abuse, with systemic group therapy showing faster symptom reduction with fewer hours of treatment. The fact that a substantial proportion of the participants still showed a clinical level of symptoms at 5-year follow-up points to the need for more intensive treatments for certain patients or, alternatively, that further psychotherapy may be needed in the years following treatment.

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Data availability statement

Due to the nature of this research, participants of this study did not agree for their data to be shared publicly, so supporting data are not available.

Disclosure statement

The authors declare that there is no conflict of interest.

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