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Group Cognitive Behavioural Analysis System of Psychotherapy (CBASP) for persistently depressed outpatients: a retrospective chart review

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Background. Cognitive behavioural analysis system of psychotherapy (CBASP) is an effective individual treatment for persistent depressive disorder (PDD), but evidence on group treatment (Group-CBASP) is limited. Our aim was to review the effect of Group-CBASP on self-report depression severity in outpatients with PDD, overall and by age of depression-onset.

Methods. A retrospective chart review study (November 2011–March 2017) in 54 patients with PDD (29 late-onset, 25 early-onset). Patients were previously treated by pharmacotherapy (92.6%), psychotherapy (98.1%) and/or electroconvulsive therapy (11.1%). Group-CBASP involved 24 weekly sessions during 6 months, followed by individual appointments over 6 months. The Inventory of Depressive Symptoms -self rating(IDS-SR) was used at baseline and after 3, 6, 9 and 12 months, computing mean differences and response rates.

Results. The mean IDS-SR score decreased significantly from 39.83 at baseline to 33.78 at 6 months: a decrease from severe to moderate depression after 24 weeks of Group-CBASP, with a medium effect size (Cohen's $d = .49$). At 12 months, the mean IDS-SR score was 32.81, indicating moderate symptom levels remained. At 6 and 12 months, mean IDS-SR scores were similar among late- versus early-onset patients, but at 12 months response rates were higher among late-onset patients.

Limitations. Although results of our study provide valuable input for future prospective studies, limitations were the use of a retrospective design and the small group size.

Conclusion. Group-CBASP offered to an outpatient population with PDD was associated with clinically relevant decrease in self-reported symptom severity, and with sustained response particularly in patients with late onset of depression.

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Practitioner points

- Group-CBASP seems to be a good alternative for CBASP in individual setting.
- Patients with late age of depression-onset seem to benefit more from Group-CBASP.
- This study shows that clinical relevant effects of Group-CBASP, followed by individual contacts, remain at least for 6 months.
- Research on personalizing treatment strategies is needed to improve patient assignment for Group-CBASP.

Depressive disorders are associated with the greatest disease burden in terms of years lived with disability (Biesheuvel-Leliefeld *et al.*, 2016; Whiteford *et al.*, 2013). With a lifetime prevalence of 25% in women and 13% in men, depressive disorders concern a large portion of the population (de Graaf, Ten Have, van Gool, & van Dorsselaer, 2012). The first depressive episode often occurs in adolescence or early adulthood and may have a large and enduring impact on multiple domains of functioning.

In about half of the patients with a major depressive disorder (MDD), symptoms will decrease within six months after the first depressive episode (Spijker *et al.*, 2002). For patients who continue to have symptoms, however, there is a high risk of experiencing chronic depression, particularly if the depressive symptoms started before 21 years of age (Klein *et al.*, 1999; Köhler *et al.*, 2019). Chronic depression, which is classified as persistent depressive disorder (PDD) in the DSM-5 (American Psychiatric Association, 2013), is responsible for 80% of the disease burden due to mood disorders (Whiteford *et al.*, 2013). Therefore, effective treatment of PDD may have a large positive effect on society.

Nonetheless, a major problem in the treatment of PDD is treatment resistance (Torpey & Klein, 2008). Compared to patients with a single episode of MDD, patients who are persistently depressed need treatment for a longer period of time and tend to benefit less from pharmacotherapy (Torpey & Klein, 2008). One explanation for these findings may be that a substantial proportion of these persistently depressed patients suffered early-onset depressive symptoms. Experiencing depressive symptoms from an early age is, in turn, correlated with higher rates of comorbidities, such as personality disorders (Klein *et al.*, 1999; Köhler *et al.*, 2019).

Cognitive behavioural analysis system of psychotherapy (CBASP) is the first psychotherapy specifically developed for PDD (McCullough, 2000). Since the chronicity of PDD is thought to be associated with impaired interpersonal functioning that began in adolescence, CBASP focuses on interpersonal therapy (McCullough, 2003). Together with their therapist(s), patients reflect on the impact of interpersonal events in their youth that influenced their interpersonal behaviour. For this reflection the 'Significant-Other History' method is used, through which patients describe the way significant others (e.g. their parents) have contributed to behaviour patterns that they recognize in themselves in everyday social interactions (McCullough, 2003; McCullough *et al.*, 2011). For a full description of the CBASP methodology, we refer to the work of McCullough (McCullough, 1995; McCullough, 2003).

In its original form, CBASP is an effective, although relatively intensive, form of individual psychotherapy (Jobst *et al.*, 2016; Negt *et al.*, 2016; Schramm *et al.*, 2017). More recently, a group treatment modality of CBASP (Group-CBASP) was developed (Sayegh & Penberthy, 2016). The controlled and relatively safe group setting allows patients to experiment with alterations in interpersonal behaviour patterns. In this way, they gain more insight regarding the impact of their behaviour on others, as well as the possibility of changing maladaptive interpersonal behaviour patterns (Sayegh &

Penberthy, 2016). Consequently, Group-CBASP may contribute to greater perceived social competence, a decrease in undesired outcomes (e.g. depressed mood, low self-esteem, social isolation and hopelessness), and strengthening of patients' ability to empathize with others (McCullough, 2003; Sayegh & Penberthy, 2016).

Group-CBASP can be offered as an inpatient or outpatient treatment programme. Treatment outcome studies on both types of programmes are scarce. Regarding the inpatient setting, two feasibility studies, of 70 and 116 patients, respectively, indicate that Group-CBASP is a feasible psychotherapy with promising outcomes for persistently depressed patients (Brakemeier *et al.*, 2015; Sabaß *et al.*, 2018). In the few studies conducted on outpatients, Group-CBASP appeared to be equally effective or even more effective than treatment-as-usual (Locke *et al.*, 2017; Michalak, Schultze, Heidenreich & Schramm, 2015; Negt *et al.*, 2016). Nonetheless, most studies have only evaluated short-term treatment outcomes, obtained within 10 or 12 weeks of therapy (Brakemeier *et al.*, 2015; Michalak *et al.*, 2015, respectively). To achieve sustainable changes, treatment of PDD in particular, ideally requires at least 18 sessions of psychotherapy (Cuijpers *et al.*, 2010). In the study of Locke *et al.* (2017), CBASP appeared to positively influence patients' interpersonal behaviour after 20 weeks of treatment.

Accordingly, the aim of the present study was to perform a single-centre chart review to evaluate the effect of Group-CBASP on self-report depression severity in outpatients with PDD, over a longer time span of 24 weeks. Our secondary aim was to assess whether age of depression-onset had moderating effects on the outcomes, since persistently depressed patients with early depression-onset in particular have been considered as a target group for CBASP (McCullough, 2003).

Methods

Study design

We conducted a retrospective chart review study using data from outpatients that were advised to undergo Group-CBASP. Data were gathered at fixed time points, before, during and after Group-CBASP, between November 2011 to March 2017. Referral of patients from our clinic as well as from external clinics to our Group-CBASP therapy was possible. The therapy took place in a medical centre in the Netherlands and was solely offered as an outpatient programme for treatment-resistant mood disorders. The group therapy consisted of 24 sessions and was based on the original manual for individual CBASP (McCullough, 1995). By only using file-identification numbers throughout the data-collection process, we maintained patient anonymity. In addition, the study complied with all relevant national ethics requirements for retrospective chart review studies.

Participants

Presence of PDD was the principal indication for Group-CBASP. PDD was defined as 'a depressive episode that lasts for more than two years or recurrent depressive episodes without full recovery between episodes'. All patients who participated in Group-CBASP had a clinical diagnosis of chronic MDD or dysthymia with recurrent depressive episodes, which was classified by the practitioners according to the DSM-IV-TR (American Psychiatric Association, 2001). An experienced psychiatry resident and/or a licensed psychologist/psychiatrist dictated the diagnosis based on the results of a clinical interview. Furthermore, at the time of referral, all patients were at least 18 years old.

Patients who were currently or imminently hospitalized after the interview was conducted were excluded from participation. Resistance to regular depression treatment (i.e. psychotherapy and/or pharmacotherapy) was not a selection criterion, but was a quality inherent to the types of cases referred to this tertiary referral medical centre. With the exception of one patient, the patients' severity of depression was assigned a stage 3C or 4 at the beginning of treatment. This staging meant that patients had multiple relapses and/or severe, persistent or unremitting illness as judged by the symptoms, neurocognition and disability indicators (Verduijn *et al*., 2015).

Group-CBASP has been offered at the UCP since November 2011. The medical files of all 101 patients that were registered at the CBASP administration desk until March 2017 were evaluated for eligibility. Eventually, we selected 54 patients for this retrospective chart review study (Figure 1). Eleven patients had been referred for CBASP, but they never started because either their depressive symptoms severely deteriorated (e.g. acute suicidality) or they had started another type of depression treatment in the meantime. Twelve other patients started the CBASP therapy but dropped out of it. The most common reasons for abandoning the group were having suicidal thoughts and/or attempting suicide, refusing to comply with the CBASP methodology or experiencing other mental or physical problems for which treatment other than CBASP was required. Another 18 patients did not finish the Group-CBASP therapy at the time the study was carried out. Since their data were incomplete, they were excluded from our data analyses.

Group-CBASP for outpatients

After referral, patients went through a diagnostic interview, during which the qualifying diagnosis for Group-CBASP was confirmed by a psychologist and/or psychiatrist. Also at this stage, we gave them global information on the treatment model. Patients also had the opportunity to ask questions before consenting to participate. Next, for those patients who consented, an appointment was made to formulate a 'transference hypothesis', which is a necessary step in the CBASP methodology (McCullough, 2003). After these individual interviews, the actual treatment started: 24 weekly group therapy sessions, each session consisting of eight persons maximum. The morning programme consisted of opening and closing activities and a middle part during which patients analysed everyday interpersonal interactions they experienced (i.e. Situation Analyses). A licensed psychologist and a co-therapist trained in CBASP led all the sessions. Unlike the Group-CBASP described by Sayegh and Penberthy (2016), Group-CBASP in the UCP also included group psychomotor therapy, which constitutes the afternoon programme. CBASP therapeutic techniques formed the basis for the psychomotor exercises. The psychomotor therapy consisted of 1.5 hr of therapy conducted by therapists with experience in CBASP. It was only offered during the 24 sessions of Group-CBASP, that is, the first six months.

After 24 group sessions, patients continued an individual programme for at least 6 months, following CBASP methodology. In this phase, patients were encouraged to continue experimenting with newly learned interpersonal behaviour and to increase their autonomy. The frequency of the appointments varied, from once a week to once every 3-4 weeks, or even longer, depending on the needs of each patient.

Assessment of depression severity

The Inventory of Depressive Symptomatology – self-rating (IDS-SR) was used to monitor depression severity during therapy. The IDS-SR is a self-report, 30-item questionnaire that

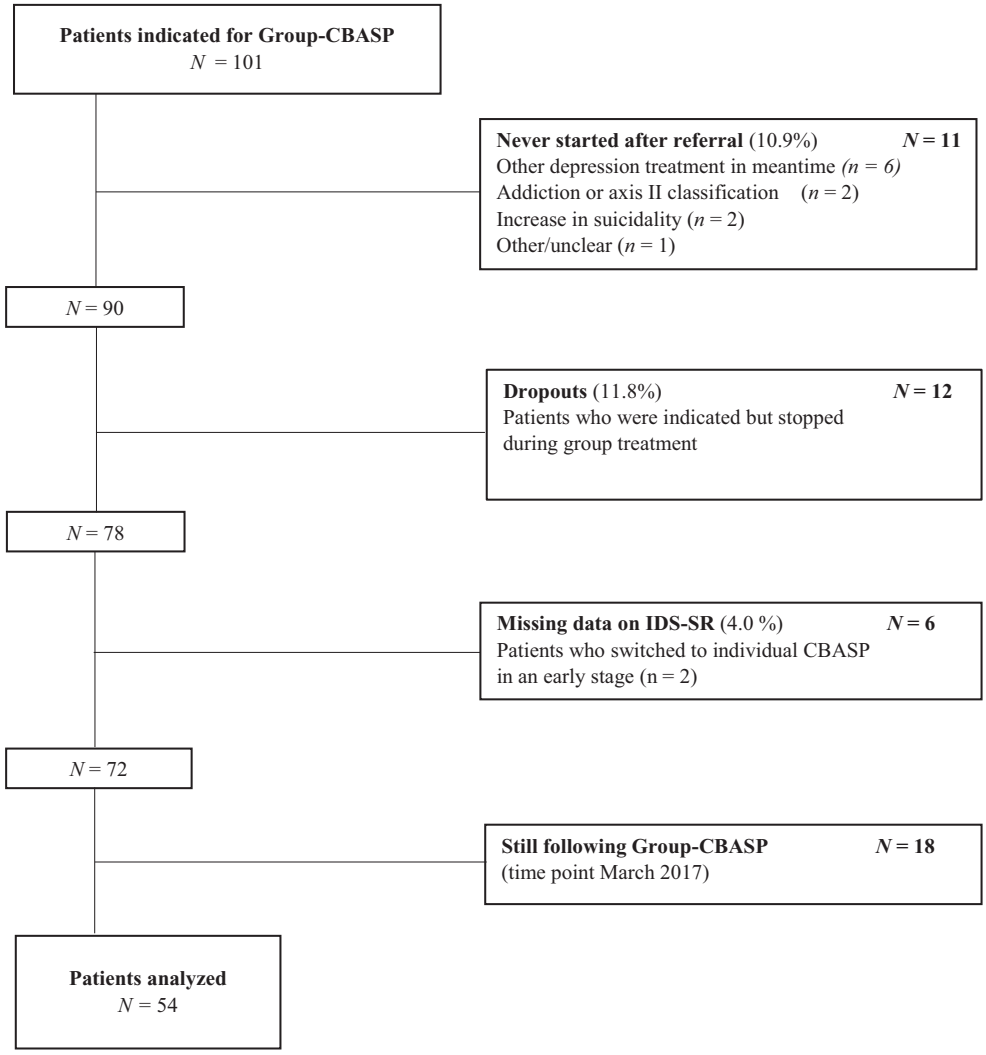

Figure 1. Flowchart of Group-CBASP participants.

asks about symptoms of depression experienced in the past week (Rush, Gullion, Basco, Jarrett & Trivedi, 1996). On average, it takes 10–15 min for a patient to fill out the questionnaire. Answers on every item were given a score ranging from 0 (symptom is absent) to 3 (symptom is severe and/or always present). Scores on the items were subdivided into nine domains corresponding with the diagnostic criteria of MDD. The total score can then be calculated by taking the sum of 28 (out of 30) items, resulting in a score within a range of 0–84, which gives an indication of the severity of the depression.

According to the IDS-SR, severity of depressive symptoms can be classified in five categories: (1) score of 0–13, no indication of depression; (2) score of 14–25, mild depression; (3) score of 26–38, moderate depression; (4) score of 39–48, severe depression; and (5) score of 49 or higher, very severe depression. With a Cronbach alpha

ranging between .79 and .92 in previous studies, the IDS-SR has good internal consistency (Corruble, Legrand, Duret, Charles & Guelfi, 1999; Trivedi *et al.*, 2004).

During Group-CBASP, the patients filled out the IDS-SR as part of the standard outcome measurements used at the UCP. They did this by responding to a monthly electronic invitation. To measure changes in depression severity, scores at the start of treatment and after 3, 6, 9 and 12 months of treatment, respectively, were used in this study.

Statistical analyses

We used the IDS-SR to evaluate the efficacy of Group-CBASP, overall and by age of depression-onset. First, characteristics of the study population were assessed and compared, between early- and late-onset patients, using chi-squared tests. Second, repeated-measures ANOVA was used to determine whether the severity of depressive symptoms had significantly changed over time. Also, we determined mean scores of the IDS-SR at all points in time (0, 3, 6, 9 and 12 months) and used paired *t* tests to compare whether means had changed after 6 months of Group-CBASP and after continued individual treatment (at 12 months). The effect size of differences in mean scores over time was calculated using Cohen's *d*.

Third, differences in mean IDS-SR scores between early- and late-onset patients were examined using independent *t* tests, and repeated-measures ANOVA was used to test changes over time with 'early onset' as the between-subjects factor. Fourth, we calculated the percentage decrease in IDS-SR scores, after Group-CBASP and after continued treatment, overall and by age of depression-onset. Finally, we made three subdivisions in the form of categories, as follows: non-response (<25%), partial response (25–49%) and response (≥50%), the latter corresponding to the criteria for (partial) response as described in literature (Hirschfeld *et al.*, 2002). All statistical analyses were performed in SPSS for Windows version 23.0.

Results

For demographic and clinical characteristics of the sample, we refer to Table 1. The charts of 25 early-onset patients and 29 late-onset patients were reviewed. Early- and late-onset patients were fairly comparable except for family status ($p = .035$) and Axis I comorbidity ($p = .0008$).[1] All patients were previously treated for depression with medication (92.6%) and/or psychotherapy (98.1%). About one in ten patients also had electroconvulsive therapy (11.1%).

Table 2 shows that the mean IDS-SR score was significantly decreased from 39.8 (*SD* 9.4) to 33.8 (*SD* 14.6; $t = 3.6, p = .001$) after 6 months of Group-CBASP (i.e. 24 sessions). This means that depression symptom levels changed from severe to moderate. The effect was not significant after 3 months (i.e. 12 sessions). During individual continuation of CBASP, from 6 to 12 months, IDS-SR scores remained stable, with a mean IDS-SR score of 35.7 (*SD* 13.4) at 9 months and a mean score of 32.8 (*SD* 17.1) at 12 months. The mean IDS-SR score at 12 months did not differ significantly compared to the mean IDS-SR score at 6 months. Repeated-measures ANOVA showed that the decrease in severity of depressive symptoms over time was significant for Group-CBASP, $F(1, 52) = 12.50$,

[1] *The study data were gathered in the period during which DSM-IV was still standard practice in our clinic, but case selection was done in 2017 using DSM-5 criteria.*

Table 1. Characteristics of the study population

	Early onset, $n = 25$	Late onset, $n = 29$	p Value
Age, mean ± *SD*	50.8 ± 10.2	52.3 ± 8.2	.54
Female	60.0 (15)	69.0 (20)	.49
Family status			
Single, separated, other	52.0 (13)	24.1 (7)	.035
Cohabiting or married	48.0 (12)	75.9 (22)	
Educational level[a]			
Low	16.0 (4)	20.7 (6)	.82
Intermediate	44.0 (11)	37.9 (11)	
High	36.0 (9)	41.4 (12)	
Primary source of income			
Labour	32.0 (8)	24.1 (7)	.76
Disability pension	64.0 (16)	69.0 (20)	
Other/unknown	4.0 (1)	6.9 (2)	
Family history of depression[b]	48.0 (12)	44.8 (13)	.82
Comorbidity (DSM-IV)[c]			
Other axis I	36.0 (9)	17.2 (2)	.0008
Axis II	32.0 (8)	44.8 (13)	.34
Somatic disorder	76.0 (19)	69.0 (20)	.57
Previous treatments for depression			
Psychotherapy	100 (25)	96.6 (28)	.54
Medication	96.0 (24)	89.7 (26)	.36
Electroconvulsive therapy	4.0 (1)	17.2 (5)	.12
Previous inpatient treatment	36.0 (9)	31.0 (9)	.70
Registered suicide attempt	12.0 (3)	10.3 (3)	.85
Taking antidepressant medication	88.0 (22)	86.2 (25)	.85

Note. Data represent mean ± standard deviation (*SD*) or per cent (number).
[a]Low = primary school or less and/or low-level technical and vocational training; medium = high school or medium-level technical and vocational training for 12–16 years; high = university or high-level technical and vocational training for >16 years.; [b]First or second degree relative.; [c]The therapy had been given in a period when DSM-IV was standard practice in our clinic, but case selection was done in 2017 using DSM-5 classification. Only registration of Axis I classification was obligatory in our centre, which may have caused missing data in Axis II classification or somatic disorders.

$p = .001$ and for the total 12-month period of the treatment, including the continued individual phase, $F(1, 52) = 13.33$, $p = .001$. The effect size was medium, with Cohen's d of .49 and .51 at 6 and 12 months, respectively.

Changes in mean IDS-SR scores by age of depression-onset are illustrated in Figure 2. Mean scores decreased significantly from baseline to 6 months in both late-onset and early-onset patients. From 6 to 9 months mean scores remained stable and then decreased between 9 and 12 months. This decrease appeared steeper in the late-onset group, but independent t tests showed that the difference in the mean change-scores between the two subgroups was not significant.

Finally, response rates are shown in Table 3. After 6 months with 24 sessions of Group-CBASP five patients (9%) had reached response (i.e. ≥50% reduction in IDS-SR scores) while 13 patients (24%) showed a partial response (25–49% reduction). After another 6 months of individual CBASP, 11 patients (20%) had reached response and 12 patients (22%) showed a partial response. In late-onset patients in particular, further

Table 2. Differences in mean IDS-SR scores over time ($N = 54$)

Months	Group-CBASP 0 $M = 39.8$ $SD = 9.4$	Group-CBASP 3 (12 sessions) $M = 38.1$ $SD = 11.1$	Group-CBASP 6 (24 sessions) $M = 33.8$ $SD = 14.6$	Individual 9 $M = 35.7$ $SD = 13.4$	Individual 12 $M = 32.8$ $SD = 17.1$
0		$t = 1.43$ $SE = 1.19$ $p = .16$ $d = .16$	$t = 3.62$* $SE = 1.67$ $p = .001$ $d = .49$	$t = 2.70$* $SE = 1.55$ $p = .009$ $d = .36$	$t = 3.51$* $SE = 2.00$ $p = .001$ $d = .51$
3			$t = 3.76$* $SE = 1.16$ $p = .000$ $d = .34$	$t = 1.85$ $SE = 1.35$ $p = .071$ $d = .20$	$t = 3.46$* $SE = 1.54$ $p = .001$ $d = .37$
6				$t = -1.16$ $SE = 1.61$ $p = .251$ $d = -.13$	$t = 0.58$ $SE = 1.66$ $p = .564$ $d = .06$
9					$t = 1.83$ $SE = 1.55$ $p = .073$ $d = .19$

Note. * = $p < .001$.

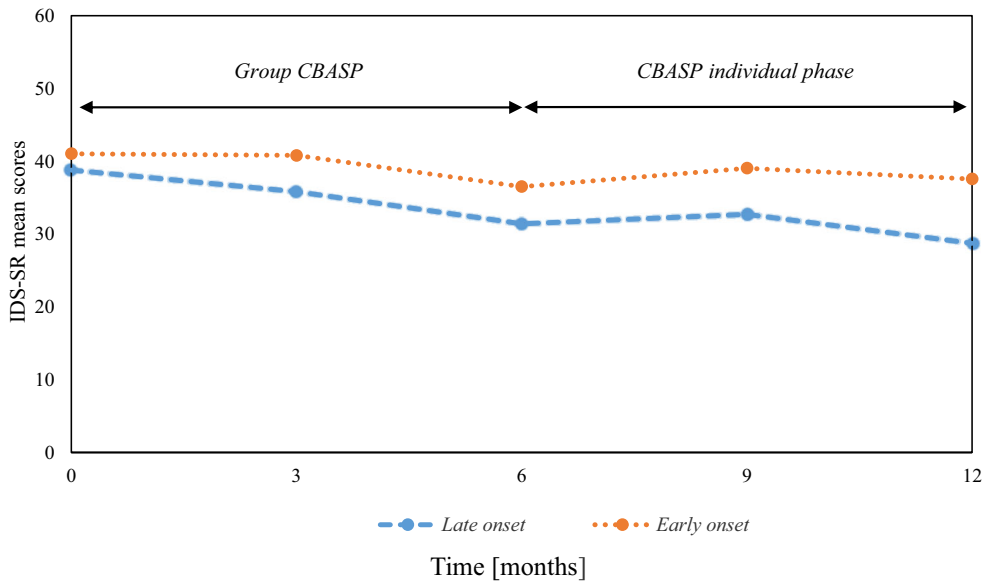

Figure 2. Changes in mean IDS-SR scores by age of depression-onset. The blue, striped line represents late-onset patients and the orange, dotted line represents early-onset patients.

improvement was seen in the 6 months that followed after the group sessions. Significantly more late-onset patients reached response or partial response after 12 months, compared to early-onset patients ($p = .010$).

Discussion

In this retrospective chart review study, we found that depression severity decreased from severe to moderate in persistently depressed outpatients who completed Group-CBASP. Lower mean depression severity scores sustained for the total 12-month period of the treatment, with effect sizes comparable to individual CBASP. To our surprise, persistently depressed patients with early depression-onset seemed to respond less on Group-CBASP than late-onset patients. Our findings show a trend towards a more sustained response in late-onset patients, while especially early-onset patients are regarded as a target group for CBASP (McCullough, 2003).

The finding that severity of depressive symptoms decreased during Group-CBASP fits with the outcomes of previous outpatient case-control studies of Michalak *et al*. (2015) and Locke *et al*. (2017). Both studies concluded that Group-CBASP was about equally effective as mindfulness-based therapy and behavioural activation, respectively. In addition, Michalak *et al*. (2015) found that Group-CBASP even led to a larger reduction of depressive symptoms compared to treatment-as-usual.

In contrast to previous studies on Group-CBASP, due to the retrospective design, we were able to analyse data over a longer period of psychotherapy sessions, that is, 24 group sessions and 6 months of continued individual care. We found that the overall treatment response sustained in the period between the end of the group sessions and the end of continued care (i.e. month 6–12), which may indicate that more sessions of Group-CBASP increase the sustainability of effects (Cuijpers *et al*., 2010). Possibly the effect of CBASP on patients' maladaptive interpersonal behaviour contributes to more long-term, sustainable effects (Locke *et al*., 2017). However, prospective cohort studies are needed to confirm our findings and to further investigate this hypothesis.

In this study, we found that the mean depression severity score decreased from severe to moderate. Although this may seem a small reduction of symptom severity, it may mean a lot for patients with PDD that everyday social interactions result in more desired outcomes. Prior to their start in Group-CBASP, nearly all patients in our study were assigned a stage 3C or 4 on the clinical staging scale of depression, which indicates that the depression was severe, persistent and recurrent (Verduijn *et al*., 2015). Furthermore, all

Table 3. Response rates (percentage of decrease in IDS-SR) by age of depression-onset ($N = 54$)

	24 sessions Group-CBASP (6 months)			Group-CBASP + individual phase (12 months)		
	25–49% *n* (%)	≥50% *n* (%)	Total > 25% *n* (%)	25–49% *n* (%)	≥50% *n* (%)	Total > 25% *n* (%)
Early onset ($n = 25$)	6 (24.0)	2 (8.0)	8 (32.0)	3 (12.0)	3 (12.0)	6 (24.0)*
Late onset ($n = 29$)	7 (24.1)	3 (10.3)	10 (34.5)	9 (31.0)	8 (27.6)	17 (58.6)
Total ($N = 54$)	13 (24.1)	5 (9.3)	18 (33.3)	12 (22.2)	11 (20.4)	23 (42.6)

Note. *Significant difference between early- and late-onset patients ($p = .010$), assessed by chi-square test.

patients had previously tried other forms of psychotherapy and/or pharmacotherapy before they started Group-CBASP. Our finding that many of these severely affected individuals showed clinically relevant improvement is encouraging for further investigation of Group-CBASP possibilities, for example among younger individuals.

Our study supports the evidence that effects of Group-CBASP are comparable to the effects of individual CBASP (Negt *et al*., 2016). However, not all patients may profit as much from the group setting as they would profit from individual treatment. Since the original, individual form of CBASP was set up in particular for persistently depressed patients with early symptom-onset, our secondary aim was to assess whether age of depression-onset would have moderating effects on the outcomes. In contrast to our expectation, mean depression severity scores showed a steeper decrease in the late-onset group, but the difference between the groups was not significant. Furthermore, the number of (partial) responders in the early-onset group was lower compared to the late-onset group, which was a significant difference when partial responders were included in the analyses. However, because of the retrospective study design and lack of a reference group, we are not able to draw further conclusions from this finding. The difference between the early- and late-onset group may also be explained by other factors, such as the higher rate of axis I comorbidity in the early-onset group. Another explanation may be the difference in family composition between early- and late-onset patients. Late-onset patients were more often living with a spouse, which may have impact on the level of interpersonal functioning at the start of therapy or, for example, may offer greater opportunities to practice new interpersonal behaviour in everyday life, but this is highly speculative. Moreover, other factors that were not measured in our study may be responsible for the effect, such as childhood maltreatment (Bausch *et al*., 2017; Köhler et al., 2019).

Our study had several strengths and limitations. One obvious limitation is that we used a retrospective chart review design, without a control group. This means that data of this study were collected in a treatment setting and not as part of a full clinical trial. Secondly, the effect of PMT that was incorporated in the CBASP program is not entirely clear, although we found that effects on depression severity continued after PMT had stopped. It is known that participants in other Group-CBASP studies have also received other interventions, for example, therapies that are offered on the unit where patients stay while receiving Group-CBASP (Sabaß *et al*., 2018). This limits comparisons between studies and is an important issue to take into account in future Group-CBASP investigations. Thirdly, a limitation of our study is that results are based on a single, albeit well-validated, self-report measure of depression severity, the IDS-SR (Rush *et al*., 2003). We used this mono-method approach because data for the present study was collected in a treatment setting, using routine outcome monitoring, and not in the context of a clinical trial.

An important strength of the study was the availability of data over a long period of time, which enabled us to provide insight in sustainability of effects. Only little evidence is available regarding long-term follow-up after CBASP (Emmelkamp *et al*., 2020). Furthermore, our findings provide information for future prospective studies, which for example investigate personalizing treatment strategies (Furakawa *et al*., 2018). Based on our findings, we hypothesize that early-onset patients may profit less from Group-CBASP than late-onset patients, but this needs further study. If patient assignment could be improved, we expect that drop-out rates would decrease. For example, a recent study on interpersonal problems indicated that Group-CBASP should be preferred in

persistently depressed patients being non-assertive, but not in those patients being vindictive or self-centred (Probst *et al*., 2020).

In conclusion, using a retrospective chart review design, we found that Group-CBASP offered to persistently depressed outpatients resulted in a decrease in self-reported depression severity from severe to moderate, and showed sustained effects particularly in patients who had a late onset of depressive symptoms. These findings provide support for further prospective research on Group-CBASP for persistently depressed patients.

Acknowledgements

None.

Conflicts of interest

All authors declare no conflict of interest.

Author contributions

Marieke Eisenga-Potijk (Data curation; Formal analysis; Investigation; Methodology; Project administration; Validation; Visualization; Writing – original draft; Writing – review & editing) Marije aan het Rot (Conceptualization; Formal analysis; Methodology; Supervision; Writing – original draft; Writing – review & editing) Frieda Parlevliet (Formal analysis; Investigation; Methodology; Writing – original draft) Robert Schoevers (Conceptualization; Supervision; Writing – original draft) Marieke Eldering, MD PhD MSc (Conceptualization; Data curation; Formal analysis; Funding acquisition; Investigation; Methodology; Project administration; Resources; Software; Supervision; Validation; Visualization; Writing – original draft; Writing – review & editing).

Data availability statement

The data that support the findings of this study are available from the corresponding author upon reasonable request.

References

American Psychiatric Association (APA) (2001). *Diagnostic and statistical manual of mental disorders (DSM-IV)* (4th ed.). Washington, DC: Author.

American Psychiatric Association (APA) (2013). *Diagnostic and statistical manual of mental disorders (DSM-5)* (5th ed.). Washington, DC: American Psychiatric Association.

Bausch, P., Fangmeier, T., Zobel, I., Schoepf, D., Drost, S., Schnell, K., . . . Schramm, E. (2017). The impact of childhood maltreatment on the differential efficacy of CBASP versus escitalopram in patients with chronic depression: A secondary analysis. *Clinical Psychology & Psychotherapy*, *24*, 1155–1162.

Biesheuvel-Leliefeld, K. E., Kok, G. D., Bockting, C. L., de Graaf, R., ten Have, M., van der Horst, H. E., . . . Smit, F. (2016). Non-fatal disease burden for subtypes of depressive disorder: Population-based epidemiological study. *BMC Psychiatry*, *16*(1), 139.

Brakemeier, E. L., Radtke, M., Engel, V., Zimmermann, J., Tuschen-Caffier, B., Schramm, E., . . . Normann, C. (2015). Overcoming treatment-resistance in chronic depression: Outcome and

feasibility of the Cognitive Behavioral Analysis System of Psychotherapy as an inpatient treatment program. *Psychotherapy and Psychosomatics*, *84*(1), 51–56.

Corruble, E., Legrand, J. M., Duret, C., Charles, G., & Guelfi, J. D. (1999). IDS-C and IDS SR: Psychometric properties in depressed in-patients. *Journal of Affective Disorders*, *56*(2–3), 95–101.

Cuijpers, P., van Straten, A., Schuurmans, J., van Oppen, P., Hollon, S. D., & Andersson, G. (2010). Psychotherapy for chronic major depression and dysthymia: A meta-analysis. *Clinical Psychology Review*, *30*(1), 51–62.

de Graaf, R., Ten Have, M., van Gool, C., & van Dorsselaer, S. (2012). Prevalence of mental disorders and trends from 1996 to 2009. Results from the Netherlands Mental Health Survey and Incidence Study-2. *Social Psychiatry and Psychiatric Epidemiology*, *47*(2), 203–213.

Emmelkamp, J., Kooistra, L., Van Oppen, P., Van Schaik, D., Hoogendoorn, A., Dekker, J., … Wiersma, J. (2020). Long-term outcome of treatment for persistent depressive disorder: A naturalistic follow-up study. *Psychotherapy & Psychosomatics*, *89*(1), 54–55.

Furukawa, T. A, Efthimiou, O., Weitz, E. S., Cipriani, A., Keller, M. B., Kocsis, J. H., … Schramm, E. (2018). Cognitive-behavioral analysis system of psychotherapy, drug, or their combination for persistent depressive disorder: Personalizing the treatment choice using individual participant data network metaregression. *Psychotherapy & Psychosomatics*, *87*(3), 140–153.

Hirschfeld, R., Montgomery, S. A., Aguglia, E., Amore, M., Delgado, P. L., Gastpar, M., … Mendlewicz, J. (2002). Partial response and nonresponse to antidepressant therapy: Current approaches and treatment options. *The Journal of Clinical Psychiatry*, *63*, 826–837.

Jobst, A., Brakemeier, E. L., Buchheim, A., Caspar, F., Cuijpers, P., Ebmeier, K. P., … Kurimay, T. (2016). European Psychiatric Association Guidance on psychotherapy in chronic depression across Europe. *European Psychiatry*, *33*, 18–36.

Klein, D. N., Schatzberg, A. F., McCullough, J. P., Dowling, F., Goodman, D., Howland, R. H., … LaVange, L. (1999). Age of onset in chronic major depression: Relation to demographic and clinical variables, family history, and treatment response. *Journal of Affective Disorders*, *55*(2–3), 149–157.

Köhler, S., Chrysanthou, S., Guhn, A., & Sterzer, P. (2019). Differences between chronic and nonchronic depression: Systematic review and implications for treatment. *Depression and Anxiety*, *36*(1), 18–30.

Locke, K. D., Sayegh, L., Penberthy, J. K., Weber, C., Haentjens, K., & Turecki, G. (2017). Interpersonal circumplex profiles of persistent depression: Goals, self-efficacy, problems, and effects of group therapy. *Journal of Clinical Psychology*, *73*, 595–611.

McCullough, Jr, J. P. (1995). *Therapist manual for cognitive behavioral analysis system of psychotherapy*. Richmond, VA: Virginia Commonwealth University.

McCullough, Jr, J. P. (2000). *Treatment for chronic depression. Cognitive Behavioral Analysis system of psychotherapy*. New York, NY: Guilford Press.

McCullough, Jr, J. P. (2003). Treatment for chronic depression using cognitive behavioral analysis system of psychotherapy (CBASP). *Journal of Clinical Psychology*, *59*, 833–846.

McCullough, Jr, J. P., Lord, B. D., Martin, A. M., Conley, K. A., Schramm, E., & Klein, D. N. (2011). The significant other history: An interpersonal-emotional history procedure used with the early-onset chronically depressed patient. *American Journal of Psychotherapy*, *65*(3), 225–248.

Michalak, J., Schultze, M., Heidenreich, T., & Schramm, E. (2015). A randomized controlled trial on the efficacy of mindfulness-based cognitive therapy and a group version of cognitive behavioral analysis system of psychotherapy for chronically depressed patients. *Journal of Consulting and Clinical Psychology*, *83*, 951.

Negt, P., Brakemeier, E. L., Michalak, J., Winter, L., Bleich, S., & Kahl, K. G. (2016). The treatment of chronic depression with cognitive behavioral analysis system of psychotherapy: A systematic review and meta-analysis of randomized-controlled clinical trials. *Brain and Behavior*, *6*(8), e00486.

Probst, T., Schramm, E., Heidenreich, T., Klein, J.-P., & Michalak, J. (2020). Patients' interpersonal problems as moderators of depression outcomes in a randomized controlled trial comparing

mindfulness-based cognitive therapy and a group version of the cognitive-behavioral analysis system of psychotherapy in chronic depression. *Journal of Clinical Psychology*, *76*, 1241–1254. https://doi.org/10.1002/jclp.22931

Rush, A. J., Gullion, C. M., Basco, M. R., Jarrett, R. B., & Trivedi, M. H. (1996). The inventory of depressive symptomatology (IDS): Psychometric properties. *Psychological Medicine*, *26*, 477–486.

Rush, A. J., Trivedi, M. H., Ibrahim, H. M., Carmody, T. J., Arnow, B., Klein, D. N., . . . Keller, M. B. (2003). The 16-item Quick Inventory of Depressive Symptomatology (QIDS), clinician rating (QIDS-C), and self-report (QIDS-SR): A psychometric evaluation in patients with chronic major depression. *Biological Psychiatry*, *54*, 573–583.

Sabaß, L., Padberg, F., Normann, C., Engel, V., Konrad, C., Helmle, K., . . . Brakemeier, E. L. (2018). Cognitive Behavioral Analysis System of Psychotherapy as group psychotherapy for chronically depressed inpatients: A naturalistic multicenter feasibility trial. *European Archives of Psychiatry and Clinical Neuroscience*, *268*, 783–796.

Sayegh, L., & Penberthy, J. K. (2016). *Group treatment manual for persistent depression: Cognitive behavioral analysis system of psychotherapy (CBASP) Therapist's Guide*. New York, NY: Routledge.

Schramm, E., Kriston, L., Zobel, I., Bailer, J., Wambach, K., Backenstrass, M., . . . Bausch, P. (2017). Effect of disorder-specific vs nonspecific psychotherapy for chronic depression: A randomized clinical trial. *JAMA Psychiatry*, *74*(3), 233–242.

Spijker, J. A. N., De Graaf, R., Bijl, R. V., Beekman, A. T., Ormel, J., & Nolen, W. A. (2002). Duration of major depressive episodes in the general population: Results from The Netherlands Mental Health Survey and Incidence Study (NEMESIS). *The British Journal of Psychiatry*, *181*(3), 208–213.

Torpey, D. C., & Klein, D. N. (2008). Chronic depression: Update on classification and treatment. *Current Psychiatry Reports*, *10*, 458–464.

Trivedi, M. H., Rush, A. J., Ibrahim, H. M., Carmody, T. J., Biggs, M. M., Suppes, T., . . . Witte, B. (2004). The Inventory of Depressive Symptomatology, Clinician Rating (IDS-C) and Self-Report (IDS-SR), and the Quick Inventory of Depressive Symptomatology, Clinician Rating (QIDS-C) and Self-Report (QIDS-SR) in public sector patients with mood disorders: A psychometric evaluation. *Psychological Medicine*, *34*(1), 73–82.

Verduijn, J., Milaneschi, Y., Schoevers, R. A., Hickie, I. B., Penninx, B. W., & Beekman, A. T. (2015). Clinical staging of major depressive disorder: An empirical exploration. *The Journal of Clinical Psychiatry*, *76*, 1200–1208.

Whiteford, H. A., Degenhardt, L., Rehm, J., Baxter, A. J., Ferrari, A. J., Erskine, H. E., . . . Burstein, R. (2013). Global burden of disease attributable to mental and substance use disorders: Findings from the Global Burden of Disease Study 2010. *The Lancet*, *382*, 1575–1586.

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