## Behandlung psychosozialer Folgen: Förderung des Wohlbefindens und Linderung einer Post-Stroke-Depression

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PICO-Frage: Ist bei Menschen mit einer Aphasie[a] (P) eine Intervention (I) im Vergleich zu einer Kontrollbedingung[b] (C) wirksam zur Förderung des Wohlbefindens sowie zur Linderung einer Post-Stroke-Depression (O)?

Literatursuche über PubMed, PsycInfo, Web of Science Core Collection und Cochrane Library; Stand: Mai 2023

Suchsprache: Englisch

Sucheingabe: (aphasia) AND (mood disorder OR depression) AND (intervention OR therapy OR treatment OR assessment) AND („randomized controlled trial" OR meta-analysis)

Trefferzahl: 53 Arbeiten

Auswahlkriterien: Randomisiert-kontrollierte Studien ($n$ = 10) oder Metaanalysen zu längsschnittlichen Studien ($n$ = 0)

**Arbeiten, deren Zielparameter *allgemeines psychisches Wohlbefinden* erfassen:**

- SADQ-10[c]: Thomas, S. A., Walker, M. F., Macniven, J. A., Haworth, H., & Lincoln, N. B. (2013). Communication and low mood (CALM): A randomized controlled trial of behavioural therapy for stroke patients with aphasia. *Clinical Rehabilitation*, *27*(5), 398–408. doi: 10.1177/0269215512462227
- SADQ-H[d]: Thomas, S. A., Drummond, A. E. R., Lincoln, N. B., Palmer, R. L., das Nair, R., Latimer, N. R., et al. (2019). Behavioural activation therapy for post-stroke depression: The BEADS feasibility RCT. *Health Technology Assessment*, *23*(47). doi: 10.3310/hta23470
- GHQ-28[e]: Bragstad, L. K., Gabrielsen Hjelle, E., Zucknic, M., Sveen, U., Thommessen, B., Arnesveen Bronken, B., et al. (2020). The effects of a dialogue-based intervention to

[a] Da die Mehrzahl verfügbarer Studien hier auf eine strenge Unterscheidung zwischen subakuter und chronischer Phase verzichtet, umfasst das vorliegende Kapitel *beide* Zeitintervalle nach einem Schlaganfall. Mit Blick auf deskriptive Statistiken der Veröffentlichungen erfolgte die Studienbehandlung der Teilnehmenden überwiegend, aber nicht ausschließlich in der subakuten Phase.

[b] Hierbei handelt es sich entweder um eine *aktive* Kontrollbedingung im Sinne einer Alternativbehandlung oder eine *passive* Kontrollbedingung im Sinne einer Warteliste oder einer über alle Experimentalgruppen hinweg verabreichten Standardbehandlung.

[c] 5 von 10 Items der Skala lassen sich zumindest ansatzweise den Kriterien einer Post-Stroke-Depression zuordnen; die übrigen Items sind unspezifisch.

[d] 9 von 21 Items der Skala lassen sich zumindest ansatzweise den Kriterien einer Post-Stroke-Depression zuordnen; die übrigen Items sind unspezifisch.

promote psychosocial well-being after stroke: A randomized controlled trial. *Clinical Rehabilitation*, *34*(8), 1056–1071. doi: 10.1177/0269215520929737

- GHQ-12[f]: Hilari, K., Behn, N., James, K., Northcott, S., Marshall, J., Thomas, S., et al. (2021). Supporting wellbeing through peer-befriending (SUPERB) for people with aphasia: A feasibility randomised controlled trial. *Clinical Rehabilitation*, *35*(8), 1151–1163. doi: 10.1177/0269215521995671

**Arbeiten, deren Zielparameter eine *Post-Stroke-Depression* erfassen:**

- BDI: Mohr, B., Stahl, B., Berthier, M. L., & Pulvermüller, F. (2017). Intensive communicative therapy reduces symptoms of depression in chronic non-fluent aphasia. *Neurorehabilitation and Neural Repair*, *31*(12), 1053–1062. doi: 10.1177/1545968317744275
- DASS: Ng, L., Sansom, J., Zhang, N., Amatya, B., & Khan, F. (2017). Effectiveness of a structured sexual rehabilitation programme following stroke: A randomized controlled trial. *Journal of Rehabilitation Medicine*, *49*(4), 333–340. doi: 10.2340/16501977-2219
- PHQ-9: Kerr, D., McCann, T., Mackey, E., & Wijeratne, T. (2018). Effects of early motivational interviewing on post-stroke depressive symptoms: A pilot randomized study of the Good Mood Intervention program. *International Journal of Nursing Practice*, *24*(4), Article e12657. doi: 10.1111/ijn.12657
- PHQ-9: Thomas, S. A., Drummond, A. E. R., Lincoln, N. B., Palmer, R. L., das Nair, R., Latimer, N. R., et al. (2019). Behavioural activation therapy for post-stroke depression: The BEADS feasibility RCT. *Health Technology Assessment*, *23*(47). doi: 10.3310/hta23470
- CES-D: Siponkoski, S.-T., Pitkäniemi, A., Laitinen, S., Särkämö, E.-R., Pentikäinen, E., Eloranta, H., et al. (2022). Efficacy of a multicomponent singing intervention on communication and psychosocial functioning in chronic aphasia: A randomized controlled crossover trial. *Brain Communnications*, *5*(1), Article fcac337. doi: 10.1093/braincomms/fcac337
- BDI und HAM-D: Stahl, B., Millrose, S., Denzler, P., Lucchese, G., Jacobi, F., & Flöel, A. (2022). Intensive social interaction for treatment of post-stroke depression in subacute aphasia: The CONNECT trial. *Stroke*, *53*(12), 3083–3093. doi: 10.1161/strokeaha.122.039995

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[e] 10 von 28 Items der Skala lassen sich zumindest ansatzweise den Kriterien einer Post-Stroke-Depression zuordnen; die übrigen Items sind unspezifisch.

[f] 6 von 12 Items der Skala lassen sich zumindest ansatzweise den Kriterien einer Post-Stroke-Depression zuordnen; die übrigen Items sind unspezifisch.

**Fließtext**

Wichtig für eine passgenaue Behandlung ist die sorgfältige Unterscheidung zwischen Beeinträchtigungen des *allgemeinen psychischen Wohlbefindens* einerseits und einer *Post-Stroke-Depression* andererseits. Zu Beeinträchtigungen des allgemeinen psychischen Wohlbefindens lassen sich wegen begrifflich-diagnostischer Unschärfen bei Menschen mit Aphasie kaum zuverlässige Angaben machen. Zusätzlich erlaubt die niedrige bis moderate Qualität der Daten allenfalls vorsichtige Schlüsse („Behavioral Activation"; Empfehlungsgrad 0; *n* = 105; Thomas et al., 2013; „Peer-Companionship"; Empfehlungsgrad B; *n* = 56; Hilari et al., 2021; siehe Evidenztabelle). In Abwägung des möglichen Nutzens bei gleichzeitiger Abwesenheit ernsthafter Nebenwirkungen rechtfertigt die Befundlage die nachfolgende Empfehlung.

*Empfehlung:*
*Zur Förderung des allgemeinen psychischen Wohlbefindens sollte der Aufbau positiver Aktivitäten aus der Kognitiven Verhaltenstherapie einschließlich sozialer Vernetzung von Menschen mit Aphasie für gemeinsame Unternehmungen zur Anwendung kommen.*

An einer Post-Stroke-Depression leidet rund ein Drittel der Betroffenen in den ersten zehn Jahren nach einem Schlaganfall (Ayerbe et al., 2013), wobei eine Aphasie das Erkrankungsrisiko um ein Vielfaches erhöht (Zanella et al., 2022). Geschätzt 3-4 von 1000 Menschen mit einer Post-Stroke-Depression begehen Suizid (Chun et al., 2022). Zu einer Post-Stroke-Depression zählen Symptome aus den Bereichen Emotion (Niedergeschlagenheit; mangelndes Freudempfinden; übermäßige Schuldgefühle; Hoffnungslosigkeit[g]), Kognition (Suizidgedanken; verringerte oder verkürzte Aufmerksamkeit) und Vegetativfunktion (Antriebsschwäche; Appetit- oder Schlafstörungen; psychomotorische Unruhe oder Verlangsamung). Eine differenzialdiagnostische Herausforderung ergibt sich aus der Überschneidung neurologischer Defizite nach einem Schlaganfall mit Symptomen einer Post-Stroke-Depression. Als unbestätigt gilt die Annahme, das Auftreten einer Post-Stroke-Depression hänge davon ab, ob die linke oder rechte Hirnhälfte geschädigt sei (Carson et al., 2000). Offen bleibt ferner die Rolle der therapeutischen Beziehung in der logopädischen Arbeit als möglicher allgemeiner Wirkfaktor, analog zu dessen Stellenwert in der Behandlung psychischer Störungen (Stahl, 2023). Die niedrige bis moderate Qualität der Daten zu Post-Stroke-Depression und Aphasie erlaubt nur vorsichtige Schlüsse („Behavioral Activation"; Empfehlungsgrad 0; *n* = 18; Thomas et al., 2019; „Intensive Language-Action Therapy"[h];

[g] Das Kriterium der Hoffnungslosigkeit wurde in der ICD-11 wegen seiner guten Trennschärfe zwischen Menschen *mit* und *ohne* Depression ergänzt.

[h] Beim Verfahren „Intensive Language-Action Therapy", auch bekannt als „Constraint-Induced Aphasia Therapy", handelt es sich um eine ressourcengestützte, kommunikativ-pragmatische Gruppentherapie. Besonderes Kennzeichen des Verfahrens ist neben seiner hohen Intensität eine sprechakttheoretisch begründete Herangehensweise, bei der Äußerungen der Teilnehmenden etwa der Aufforderung zum Austausch von

Empfehlungsgrad B; *n* = 60; Stahl et al., 2022; siehe Evidenztabelle). In Abwägung des möglichen Nutzens bei gleichzeitiger Abwesenheit ernsthafter Nebenwirkungen rechtfertigt die Befundlage die nachfolgende Empfehlung.

*Empfehlung:*
*Zur Linderung einer Post-Stroke-Depression sollten nach diagnostischer Abklärung der Aufbau positiver Aktivitäten aus der Kognitiven Verhaltenstherapie sowie ressourcengestützte, kommunikativ-pragmatische Gruppentherapie zur Anwendung kommen.*

Bislang ungeprüft ist die Durchführbarkeit und Wirksamkeit von Psychotherapie bei Post-Stroke-Depression und Aphasie. Hier ist zudem vermehrt interprofessioneller Austausch nötig, um psychopathologisches Wissen und praktische Fertigkeiten etwa zum Umgang mit Suizidalität über einzelne Berufsgruppen hinweg in der Aus- und Weiterbildung zu verankern. Ebenso wünschenswert wären randomisiert-kontrollierte Studien, die gezielt für Menschen mit Aphasie die Förderung des Wohlbefindens und die Linderung einer Post-Stroke-Depression durch Musik- und Kunsttherapie belegen. Was die Möglichkeiten und Grenzen der Pharmakotherapie angeht, so sei auf die S3-Leitlinie „Uniploare Depression" verwiesen; künftige Forschung sollte auch hier Menschen mit Aphasie beteiligen, um die Aussagekraft der Daten für diese Personengruppe zu untermauern.

**Literatur**


- Ayerbe, L., Ayis, S., Wolfe, C. D., & Rudd, A. G. (2013). Natural history, predictors and outcomes of depression after stroke: Systematic review and meta-analysis. *The British Journal of Psychiatry*, *202*(1), 14–21. doi: 10.1192/bjp.bp.111.107664
- Bragstad, L. K., Gabrielsen Hjelle, E., Zucknic, M., Sveen, U., Thommessen, B., Arnesveen Bronken, B., et al. (2020). The effects of a dialogue-based intervention to promote psychosocial well-being after stroke: A randomized controlled trial. *Clinical Rehabilitation*, *34*(8), 1056–1071. doi: 10.1177/0269215520929737
- Carson, A. J., MacHale, S., Allen, K., Lawrie, S. M., Dennis, M., House, A., et al. (2000). Depression after stroke and lesion location: A systematic review. *Lancet*, *356*(9224), 122–126. doi: 10.1016/s0140-6736(00)02448-x
- Chun, H. Y. Y., Ford, A., Kutlubaev, M. A., Almeida, O. P., & Mead, G. E. (2022). Depression, anxiety, and suicide after stroke: A narrative review of the best available evidence. *Stroke*, *53*(4), 1402–1410. doi: 10.1161/strokeaha.121.035499
- Hilari, K., Behn, N., James, K., Northcott, S., Marshall, J., Thomas, S., et al. (2021). Supporting wellbeing through peer-befriending (SUPERB) for people with aphasia: A


Gegenständen dienen („Gib mir das Wasser, bitte"). Vollzogen wird dieser Austausch im Sprachspiel sowohl *verbal* als auch *motorisch*, um – so die Annahme – neuronale Ressourcen zur Wiedererlangung der Sprache effektiv auszuschöpfen (Pulvermüller & Roth, 1991).

feasibility randomised controlled trial. *Clinical Rehabilitation*, *35*(8), 1151–1163. doi: 10.1177/0269215521995671

- Kerr, D., McCann, T., Mackey, E., & Wijeratne, T. (2018). Effects of early motivational interviewing on post-stroke depressive symptoms: A pilot randomized study of the Good Mood Intervention program. *International Journal of Nursing Practice*, *24*(4), Article e12657. doi: 10.1111/ijn.12657
- Mohr, B., Stahl, B., Berthier, M. L., & Pulvermüller, F. (2017). Intensive communicative therapy reduces symptoms of depression in chronic non-fluent aphasia. *Neurorehabilitation and Neural Repair*, *31*(12), 1053–1062. doi: 10.1177/1545968317744275
- Ng, L., Sansom, J., Zhang, N., Amatya, B., & Khan, F. (2017). Effectiveness of a structured sexual rehabilitation programme following stroke: A randomized controlled trial. *Journal of Rehabilitation Medicine*, *49*(4), 333–340. doi: 10.2340/16501977-2219
- Pulvermüller, F., & Roth, V. M. (1991). Communicative aphasia treatment as a further development of PACE therapy. *Aphasiology*, *5*(1), 39–50. doi: 10.1080/02687039108248518
- Siponkoski, S.-T., Pitkäniemi, A., Laitinen, S., Särkämö, E.-R., Pentikäinen, E., Eloranta, H., et al. (2022). Efficacy of a multicomponent singing intervention on communication and psychosocial functioning in chronic aphasia: A randomized controlled crossover trial. *Brain Communnications*, *5*(1), Article fcac337. doi: 10.1093/braincomms/fcac337
- Stahl, B. (2023). Beyond language deficits: Working alliance and resources as predictors of recovery from aphasia. *Stroke*. doi: 10.1161/strokeaha.123/043498
- Stahl, B., Millrose, S., Denzler, P., Lucchese, G., Jacobi, F., & Flöel, A. (2022). Intensive social interaction for treatment of post-stroke depression in subacute aphasia: The CONNECT trial. *Stroke*, *53*(12), 3083–3093. doi: 10.1161/strokeaha.122.039995
- Thomas, S. A., Drummond, A. E. R., Lincoln, N. B., Palmer, R. L., das Nair, R., Latimer, N. R., et al. (2019). Behavioural activation therapy for post-stroke depression: The BEADS feasibility RCT. *Health Technology Assessment*, *23*(47). doi: 10.3310/hta23470
- Thomas, S. A., Walker, M. F., Macniven, J. A., Haworth, H., & Lincoln, N. B. (2013). Communication and low mood (CALM): A randomized controlled trial of behavioural therapy for stroke patients with aphasia. *Clinical Rehabilitation*, *27*(5), 398–408. doi: 10.1177/0269215512462227
- Zanella, C., Laures-Gore, J., Dotson, V. M., & Belagaje, S. R. (2022). Incidence of post-stroke depression symptoms and potential risk factors in adults with aphasia in a comprehensive stroke center. *Topics in Stroke Rehabilitation*, *30*(5), 448–458. doi: 10.1080/10749357.2022.2070363

| **Outcome** | **Author, year, study type, evidence level** | **Intervention** *(Details, intensity, frequency, duration)* | **Control intervention** *(Details, intensity, frequency, duration)* | **Sample** *(eligibility criteria and study sample characteristics: n=?)* | **Outcome measures** *(including ICF levels; if applicable: follow-up testing)* | **Main results** *(e.g., effect size [plus CI], significance)* | **Quality of the evidence (good, fair, poor)** | **Recommendation (A, B, 0)** | **Conclusion / Comment** *(based on PICO; results, methodical weaknesses, limitations, applicability; recommendation)* |
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| Psychological well-being | Thomas et al., 2013; randomized controlled trial; level 2 | "Behavioral therapy" ("Treatment strategies focused on maximizing mood-elevating activities and included education, activity monitoring, activity scheduling, and graded task assignments"; no fixed intensity or frequency; up to 20 sessions of treatment over three months, with each session lasting approximately 1 hour) | "Usual care" (not detailed) | "The Visual Analog Mood Scales 'sad' item and Stroke Aphasic Depression Questionnaire were used, with patients meeting the criteria on one or both measures to be eligible"; late subacute and consolidation stage; total sample size: *n* = 105 | Stroke Aphasic Depression Questionnaire-10 (SADQ-10; 10 items) at baseline, immediately after end of treatment and at 3-month follow-up | After end of treatment: between-group difference = -2.3; no effect size measure; 95%-CI: -7.81 to 0.01, *p* = 0.050; at 3-month follow-up: between-group difference = -4.5; no effect size measure; 95%-CI: -9.95 to -2.30; *p* = 0.002; 20% dropout-rate in experimental group | Fair | B | No active control condition; no fixed intensity or frequency; vague in- and exclusion criteria; 20% dropout-rate in experimental group; failed to reach target sample size; no effect size measure |
| | Thomas et al., 2019; randomized controlled trial; level 2 | "Behavioral activation therapy" ("aims to increase activity level […] and decrease avoidance behaviours," "focus on reduced positive reinforcement [and] concerned with addressing avoidance behaviours"; no fixed intensity or frequency; up to 15 sessions of treatment over 4 months, with each session | "Usual care" ("current care [and] all other services," not detailed) | "[…] adults (aged ≥ 18 years) between 3 months and 5 years post-stroke, living in community settings (including nursing homes) and identified as depressed, defined as scoring ≥ 10 points on the Patient Health Questionnaire-9 (PHQ-9) or ≥ 50/100 points on the Visual Analogue Mood Scales […] 'Sad' item"; most participants were in the late subacute and consolidation stage (*n* = 30), while a | Stroke Aphasic Depression Questionnaire (hospital version; SADQ-H; 21 items) at baseline and 2 months after end of treatment | 2 months after end of treatment: no effect size measure; between-group difference = -0.55; 95%-CI: -6.5 to 5.4; no statistics on between-group difference; no effect size measure | Fair | 0 | No active control condition; no fixed intensity or frequency; failed to reach target sample size; only subgroup of 18 individuals suffered from aphasia; "research therapists" had no previous formal training in psychotherapy or stroke service; no effect size measure |

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| | | lasting approximately 1 hour) | | subgroup was recruited in the chronic stage (*n* = 18); total sample size: *n* = 48; subgroup diagnosed with aphasia: *n* = 18 | | | | | |
| | Bragstad et al., 2020; randomized controlled trial; level 2 | "Dialogue-based intervention" ("to promote psychosocial well-being"; eight individual sessions of 1–1.5 hour; intervention started 4–8 weeks after stroke, lasted 17 weeks) | "Standard stroke treatment" (not detailed) | "[…] adults aged ≥ 18 years, had suffered an acute stroke within the last 4 weeks, were medically stable, had sufficient cognitive functioning to participate, were able to understand and speak Norwegian before stroke onset, and were able to give informed consent"; "acute stroke within the last four weeks"; total sample size: *n* = 322; subgroup diagnosed with aphasia unclear | General Health Questionnaire-28 (GHQ-28; 28 items) at baseline as well as 4–6 weeks, 6 months, and 12 months post-stroke | At 12 months post-stroke: negative result; between-group difference = -0.74; 95%-CI: -3.08 to 1.60, *p* = 0.537 | Fair | 0 | No significant between-group differences; no active control condition; contents of "dialogue-based intervention" unspecified; subgroup diagnosed with aphasia unclear; no effect size measure |
| | Hilari et al., 2021; randomized controlled trial; level 2 | "Supporting well-being through peer-befriending" (6 visits from trained peer-befrienders over three months, with each session lasting approximately 1 hour) | "Usual Care" ("all health and social care and voluntary services available within their boroughs") | "Participants were eligible if they were: > 18 years old; pre-morbidly fluent in English; diagnosed with aphasia due to stroke; experiencing low levels of distress (based on Depression Intensity Scale Circles […] cut-offs)"; subacute stage; total sample size: *n* = 56 | General Health Questionnaire-12 (GHQ-12; 12 items) at baseline as well as 1 and 7 months after end of intervention | 1 month after end of treatment: between-group difference = -0.68; 95%-CI: -2.08 to 0.73; effect size Cohen's *d* = 0.19; 7 months after end of treatment: between-group difference = -1.23; effect size Cohen's *d* = 0.34; 95%-CI: -2.63 to 0.17 | Good | B | No active control condition; small effect (according to Cohen's classification) |
| Post-stroke depression | Mohr et al., 2017; crossover randomized controlled trial; level 2 | "Intensive Language-Action Therapy" ("[practicing] behaviorally relevant communicative speech acts used in everyday-life | "Intensive Naming Therapy" (protocol consistent with ILAT, but without requiring individuals to "engage in behaviorally relevant | Inclusion criteria: "(1) right-handedness according to the Edinburgh Handedness Inventory prior to disease onset, (2) native speakers of German, (3) no | Beck's Depression Inventory, simplified version (BDI; 20 items) at baseline, immediately after end of first treatment interval and after second treatment interval (crossover | After the first treatment interval: no significant Time-by-Group interaction; after the second treatment interval: effect size $\eta^2$ = 0.32; significant Time-by-Group interaction; *p* = 0.002 | Fair | 0 | So far the only trial with active control condition and recruitment limited to the chronic stage; most participants did not suffer from above-threshold post-stroke depression; small sample size; possible |

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| | | contexts";<br>3.5 hours per day for 6 consecutive working days) | communicative speech acts used in everyday-life contexts";<br>3.5 hours per day for 6 consecutive working days) | severe memory or auditory language comprehension deficits, and (4) non-fluent aphasia";<br>chronic stage; total sample size: *n* = 18 | design) | | | | confound through crossover design in the second treatment interval; small-to-moderate effect (according to Cohen's classification) |
| | Ng et al., 2017; randomized controlled trail; level 2 | "Structured sexual rehabilitation program" (written educational material, single 30-minute individualized sexual rehabilitation session, offer of a more comprehensive intervention towards the end of inpatient stay) | Individuals in control group received "written education material only at the time of recruitment, but were allowed to request further information to ensure they were not unduly disadvantaged in their clinical care" | "The inclusion criteria were: confirmed diagnosis of stroke (haemorrhagic or ischaemic) based on clinical examination and imaging, as assessed by a neurologist, ability to comprehend (comprehension score on Functional Independence Measure ≥ 4), ability and willingness to give informed consent, and age 18 years and above";<br>stage after stroke not specified; total sample size: *n* = 68;<br>subgroup diagnosed with mild-to-moderate aphasia unclear, but probably less than 53% (proportion of individuals with stroke in dominant hemisphere) | Depression Anxiety Stress Scales (DASS; 21 items) at baseline as well as 6 weeks and 6 months after end of treatment | 6 weeks after end of treatment: negative result; $p = 0.366$;<br>6 months after end of treatment: negative result; $p = 0.472$ | Fair | 0 | No significant between-group differences; no active control condition; only unspecified subgroup suffers from above-threshold post-stroke depression; subgroup diagnosed with aphasia unclear |
| | Kerr et al., 2018; randomized controlled trial; level 2 | Motivational Interviewing;<br>(session 1: encouraging to talk about adjustment to stroke;<br>session 2: identifying goals and barriers for recovery;<br>session 3: supporting the patients' self-efficacy; each | "Routine care provided by nursing, medical, and allied health staff" (not detailed) | "Inclusion criteria were as follows: acute presentation after acute stroke (cerebral infarction/intracerebral haemorrhage); cognitively alert; and at least 18 years of age"; acute stage (not specified); total sample size: *n* = 30;<br>subgroup diagnosed with mild-to-moderate aphasia unclear | Patient Health Questionnaire-9 (PHQ-9) at baseline as well as 1 month and 3 months after end of treatment | "Depression scores increased slightly for both groups at 3-month follow-up"; no statistics on between-group differences; no effect size measure | Poor | 0 | No statistics on between-group differences; no active control condition; only unspecified subgroup suffers from above-threshold post-stroke depression; small sample size |

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| | session lasted approximately 30 minutes) | | | | | | | |
| Thomas et al., 2019; randomized controlled trial; level 2 | "Behavioral activation therapy" ("aims to increase activity level […] and decrease avoidance behaviours," "focus on reduced positive reinforcement [and] concerned with addressing avoidance behaviours"; no fixed intensity or frequency; up to 15 sessions of treatment over 4 months, with each session lasting approximately 1 hour) | "Usual care" ("current care [and] all other services," not detailed) | "[…] adults (aged ≥ 18 years) between 3 months and 5 years post-stroke, living in community settings (including nursing homes) and identified as depressed, defined as scoring ≥ 10 points on the Patient Health Questionnaire-9 (PHQ-9) or ≥ 50/100 points on the Visual Analogue Mood Scales […] 'Sad' item"; most participants were in the late subacute and consolidation stage (*n* = 30), while a subgroup was recruited in the chronic stage (*n* = 18); total sample size: *n* = 48; subgroup diagnosed with aphasia: *n* = 18 | Patient Health Questionnaire-9 (PHQ-9) at baseline and 2 months after end of treatment | Between-group difference = -3.8; 95%-CI: -6.90 to -0.58; no statistics on between-group difference; no effect size measure | Fair | 0 | No active control condition; no fixed intensity or frequency; failed to reach target sample size; only unspecified subgroup suffers from above-threshold post-stroke depression; only subgroup of 18 individuals suffered from aphasia; "research therapists" had no previous formal training in psychotherapy or stroke service; no effect size measure |
| Siponkoski et al., 2022; crossover randomized controlled trial; level 2 | "Multicomponent singing intervention" ("combination of group training" and "home training"; group training: singing with "breathing and vocal exercises" as well as modified Melodic Intonation Therapy; home training: singing via "tablet-based application"; group training: 1 weekly session over a treatment period of 4 months, with | "Standard care" (not detailed) | "Inclusion criteria were: (i) age ≥ 18; (ii) Finnish-speaking; (iii) time since stroke/injury > 6 months; (iv) at least mild aphasia [Boston Diagnostic Aphasia Examination Aphasia Severity Rating Scale score ≤ 4 (preliminary assessment based on recruitment interview)]; (v) no subjective hearing deficit; (vi) cognitive ability to give an informed consent; (vii) no neurological / psychiatric co- | Center for Epidemiolgic Studies Depression Scale (CES-D; 20 items) at baseline, immediately after end of first treatment interval and after second treatment interval (crossover design) | No significant Time-by-Group interaction; *p* = 0.715 | Fair | 0 | So far the only randomized controlled trial investigating the efficacy of a music-based intervention in stroke survivors *with* aphasia; no significant between-group differences; no active control condition; possible confound through crossover design in the second treatment interval; only unspecified subgroup suffers from above-threshold post-stroke depression |

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| | | each session lasting 1.5 hours; home training: 3 weekly sessions over a treatment period of 4 months, with each session lasting 0.5 hours) | | morbidity or substance abuse and (viii) ability to produce vocal sound through singing / humming"; consolidation and chronic stage; total sample size: *n* = 50 | | | | | |
| | Stahl et al., 2022; quasi-randomized controlled trial; level 3 | "Intensive Language-Action Therapy" ("treatment program that requires individuals with aphasia to use verbal utterances as a 'tool' to accomplish communicative goals"; 5 weekly sessions over a treatment period of 1 month, with each session lasting 1 hour) | "Standard care" (antidepressant medication, occupational therapy, physiotherapy, and non-intensive speech-language therapy) | "Inclusion criteria were: left-hemispheric cortical or subcortical ischemic or hemorrhagic event; subacute phase (0.5–6 months after the cerebrovascular lesion); German as first native language; right-handedness according to the Edinburgh Handedness Inventory; diagnosis of post-stroke depression, as defined by international classification code F06.32; diagnosis of aphasia, as confirmed by the Bielefeld Aphasia Screening, with no > 2 SDs below the average score on the subscale 'Auditory Comprehension' to ensure understanding of basic instructions"; subacute stage; total sample size: *n* = 60 | Beck's Depression Inventory, simplified version (BDI; 20 items) and Hamilton Rating Scale for Depression (HAM-D; 7 items) at baseline and immediately after end of treatment | Between-group difference on BDI = -6.8; effect size η2 = 0.031; 95%-CI: -11.7 to -1.9; p = 0.040; between-group difference on HAM-D = -1.7; effect size η2 = 0.101; 95%-CI: -3.1 to -0.3; p = 0.002 | Good | B | So far the only trial investigating above-threshold post-stroke depression and aphasia; quasi-randomization; no active control condition; small-to-moderate effect (according to Cohen's classification) |