

Table 1. Study Characteristics, Intervention Variables, Findings, and Levels of Evidence of Included Studies

Study	Country	Design	Intervention/ Comparison	Intensity/ duration	Relevant outcome measure(s)	Major findings
Level Ib evidence (ASHA)						
Hsu et al. (2017)	Taiwan	Controlled/ randomized	Tx group: Spaced retrieval (<i>n</i> = 49) Control group: Routine care (<i>n</i> = 46)	30 sessions, 40 minutes duration, 5 times a week for 6 weeks	Hyperphagic behaviors in dementia scale (unpublished)	A large treatment effect (<i>d</i> = 0.85 [95% CI = 0.43–1.27]) in favor of spaced retrieval was identified when compared to the control group.
Kao et al. (2016)	Taiwan	Controlled/ randomized	Tx groups: Spaced retrieval (<i>n</i> = 46) Spaced retrieval combined with Montessori-based activities (<i>n</i> = 49) Control group: Routine care (<i>n</i> = 45)	30 sessions, > 40 minutes duration for 6 weeks	Hyperphagic behaviors in dementia scale (unpublished)	Both treatment groups performed significantly better than the control immediately following treatment (<i>p</i> < 0.000). Significant gains in the spaced retrieval group over the control were maintained at one month (<i>p</i> < 0.002) and three months (<i>p</i> < 0.0014) posttreatment. Significant improvement over the control was maintained in the spaced retrieval combined with Montessori-based activities group at one month (<i>p</i> < 0.000), three months (<i>p</i> < 0.002), and six months (<i>p</i> < 0.038) posttreatment.
Level IIa evidence (ASHA)						
Lin et al. (2010)	Taiwan	Controlled/ not randomized	Tx groups: Spaced retrieval (<i>n</i> =32) Montessori-based activities (<i>n</i> =29) Control group: Routine care (<i>n</i> =24)	24 sessions, 30–40 minutes duration, 3 times a week for 8 weeks	EdFED	The spaced retrieval group outperformed the control group (<i>d</i> = 0.41 [95% CI = -0.13–0.94]). The effect size was medium. A small improvement over the spaced retrieval group was seen for the Montessori-based activities group (<i>d</i> = 0.21 [95% CI = -0.27–0.74]).
Wu, Lin, Su et al. (2014)	Taiwan	Cross-sectional	Tx groups: Spaced retrieval (<i>n</i> =29) Spaced retrieval combined with errorless learning principles (<i>n</i> =32)	24 sessions, 35–40 minutes duration, 3 times a week for 8 weeks	Recall of eight trained eating behaviors	Participants in the spaced retrieval combined with errorless learning group demonstrated significantly (<i>p</i> < 0.0031) better overall recall on 6 of 8 trained eating behaviors, compared to the spaced retrieval-only group. Seventy-five percent of participants in the spaced retrieval combined with errorless learning group remembered to perform each of the eating behaviors following a 32-minute testing interval, compared to 17.2% in the spaced retrieval-only group.

Table 1. Study Characteristics, Intervention Variables, Findings, and Levels of Evidence of Included Studies (continued)

Study	Country	Design	Intervention/ Comparison	Intensity/ duration	Relevant outcome measure(s)	Major findings
Wu, Lin, Wu et al. (2014)	Taiwan	Controlled/ not randomized	Tx groups: Individualized spaced retrieval combined with Montessori-based activities (<i>n</i> = 38) Standardized spaced retrieval combined with Montessori-based activities (<i>n</i> = 25) Control group: Routine care (<i>n</i> = 27)	10–35 sessions, 35–40 minute sessions, 3 times a week for 3–12 weeks. 24 sessions, 35–40 minutes duration, 3 times a week for 8 weeks	EdFED	Large effect sizes were found when comparing the individualized treatment group to the control group immediately following treatment (<i>d</i> = 1.87 [95% CI = 1.26–2.43]) and six months later (<i>d</i> = 0.91 [95% CI = 0.38–1.41]) and when comparing the standardized treatment group to the control group immediately (<i>d</i> = 1.51 [95% CI = 0.87–2.10]) and six months (<i>d</i> = 1.44 [CI = 0.81–2.03]) posttreatment.
Level IIb evidence (ASHA)						
Benigas & Bourgeois (2016)	United States	Single-subject multiple-baseline across behaviors	Spaced retrieval combined with visual aid (<i>n</i> -of-1 x 5)	12–31 sessions; 30–45 minutes, 5 times a week for 2–6 weeks	Recall of individualized trained behaviors: P1: liquid wash; finger sweep P2: liquid wash; chin tuck; cough and swallow P3: liquid wash; lingual sweep; double swallow P4: steps of the super supraglottic swallow trained in three phrases P5: double swallow; liquid wash; finger sweep	P1 demonstrated mastery of 2 of 2 strategies. Training with a visual aid was needed for mastery of the finger sweep. P2 demonstrated mastery of 2 of 3 strategies. The cough-and-swallow technique was discontinued because the participant had difficulty producing a cough and replaced it with a sign. P3 demonstrated mastery of 3 of 3 strategies without a visual aid. P4 demonstrated mastery of 2 of 3 strategies, but was hospitalized prior to completing training on the third strategy. P5 demonstrated mastery of 3 of 3 strategies without a visual aid. P1, P2, and P5 demonstrated mastery of learned strategies with the use of a visual aid at one and four week follow-up sessions. P3 demonstrated mastery of learned strategies one week posttreatment.

EdFED = Edinburgh Feeding Evaluation in Dementia (Watson, MacDonald, & McReady, 2001)

Table 2. Quality Rating of Group Studies Using the PEDro Scale

	Hsu et al. (2017)	Kao et al. (2016)	Lin et al. (2010)	Wu, Lin, Su et al. (2014)	Wu, Lin, Wu et al. (2014)
Eligibility criteria specified*	+	+	+	+	+
Random allocation	+	+	-	-	-
Concealed allocation	-	-	-	-	-
Group similar at baseline	+	+	-	+	-
Subject blinding	-	-	-	-	-
Therapist blinding	-	-	-	-	-
Assessor blinding	+	+	+	+	+
Less than 15% dropout	+	+	+	+	+
Intention-to-treat analysis	-	-	-	-	-
Between-group statistical comparison	+	+	+	+	+
Point measure and variability data	+	+	+	+	+
Total PEDro score	6/10	6/10	4/10	5/10	4/10

*Not factored into the PEDro score.

Table 3. Quality Rating of Single-Subject Design Study Using the SCED Scale

	Benigas & Bourgeois (2016)
Clinical history*	+
Target behavior specification	+
Design	+
Stability of baseline	+
Sample behavior during treatment	+
Raw data record	+
Inter-rater reliability	+
Independence of assessor	-
Statistical analyses	-
Replication	+
Generalization	+
Total SCED score	8/10

*Not factored into the SCED score.