

## **SUPPLEMENTAL MATERIAL**

### **Systematic Review of the Evidence for Stroke Family Caregiver and Dyad Interventions**

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#### **Online Supplement: Supplemental Tables S1-S3**

Supplemental Table S1. Search strategy text used for each database.

Supplemental Table S2. Summary of 10 Articles Testing Family Caregiver Interventions.

Supplemental Table S3. Summary of 8 Articles Testing Dyad Interventions.

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**Supplemental Table S1.** Search Strategy Text used for each database.

<b>Database</b>	<b>Search String</b>	<b>Limiters</b>	<b>Expanders</b>
EBSCOhost CINAHL	((stroke AND family) OR caregiver) AND (interventions OR (experimental studies OR quasi-experimental studies))	2016-12-01 through 2021-03-31	Related words, Equivalent subjects
PsycINFO	((stroke AND family) OR caregiver) AND (interventions OR (experimental studies OR quasi-experimental studies))	2016-12-01 through 2021-03-31	Related words, Equivalent subjects
PubMed (includes MEDLINE)	((stroke AND family) OR caregiver) AND (interventions OR (experimental studies OR quasi-experimental studies))	2016-12-01 through 2021-03-31	Related words, Equivalent subjects

**Supplemental Table S2. Summary of 10 Articles Testing Family Caregiver Interventions.**

Author(s) (year) Country	Sample	Design	Skill- building	Psycho- educa- tion	Support	Face- to- Face	Tele- phone	Web	Total # ses- sions	Survivor outcomes (p<.05)	Caregiver outcomes (p<.05)
Cheng et al., 2018 China <sup>19</sup>	N=142 T=64 U=64	RCT	X hands on skills & problem solving	X		2	6		8	<b>NS Findings</b> Survivor's placement to residential care home	*Competence T1, 1mo, 3mo Problem solving, T1, 1mo, 3mo Social Support Number 3mo Social Support Satisfaction 3mo Family functioning 1mo Burden 3mo <b>NS Findings</b> Depressive symptoms Social Support Number T1, 1mo Social Support Satisfaction T1, 1mo Family functioning T1, 3mo Perceived physical health Burden T1, 1mo
Fu et al., 2020 China <sup>20</sup>	N=68 T=34 C=34	RCT	X stress	X Tailored		9			9	Quality of life	Benefit finding Burden Quality of life
LeLaurin et al., 2021 USA <sup>21</sup>	N=53 T=13 (4wk) T=13 (8wk) C=13 (8wk) U=14	RCT	X problem solving	X Tailored			4 or 8		4 or 8		<b>NS Findings</b> *Depressive symptoms Burden (not powered for significance due to small sample size)

Author(s) (year) Country	Sample	Design	Skill- building	Psycho- educa- tion	Support	Face- to- Face	Tele- phone	Web	Total # ses- sions	Survivor outcomes (p<.05)	Caregiver outcomes (p<.05)
Mores et al., 2018 Canada <sup>22</sup>	N=42 T=42	Quasi single group pre-post	X	X Tailored		4 varied			4 varied		Life changes Burden, time <b>NS Findings</b> Burden, Difficulty
Moreira et al., 2018 Brazil <sup>23</sup>	N=33 T=11 T=11 U=11	RCT	X hands on	X		1			1		Pain reduction in neck, R shoulder, both knees. Physical health Social relations (several within group differences found) <b>NS Findings</b> Pain other areas *Q1 & Q2 WhoQOL Psychological Environment Perceived Stress (several NS within group differences)
Patchwood et al, 2021 United Kingdom <sup>24</sup>	N=36 clusters (N=349) T=18 Clusters (n=175) U=18 clusters (n=174)	Cluster RCT	X action plan	X Assess Tailored		1			1		<b>NS Findings</b> *Carer strain Carer distress Positive appraisal Anxiety Depression EQ-5D quality of life
Walker et al., 2020 United Kingdom <sup>25</sup>	N=35 T=18 U=17	RCT	X problem solving stress	X		6			6 choice group or one on one	Significance not tested due to small sample size. Descriptive data trends.	Significance not tested due to small sample size. Descriptive data trends.

Author(s) (year) Country	Sample	Design	Skill- building	Psycho- educa- tion	Support	Face- to- Face	Tele- phone	Web	Total # ses- sions	Survivor outcomes (p<.05)	Caregiver outcomes (p<.05)
Wang et al., 2021 China <sup>26</sup>	N=110 T=55 C=55	RCT	X relaxatio n	X		24			24		Anxiety 6&12mo Depression 6&12mo Burden 6 & 12mo Care burden 12mo <b>NS Findings</b> Anxiety 3mo Depression 3mo Burden 3mo Care burden 3&6, mo
Yilmaz et al., 2019 Turkey <sup>27</sup>	N=44 T=23 U=21	RCT	X relaxatio n			1 trainin g	14		1 trainin g, then 2 x /wk for 8 wks		Burden (within) Depression (within) <b>NS Findings</b> Burden (between) Depression (between)
Zhang et al., 2019 China <sup>28</sup>	N=196 T=98 U=98	RCT	X stress	X Assess Tailored based on survivor		2 Weekl y in hosp Every 2 weeks post hosp			2 plus additi onal in hosp and post hosp (varie s)	Cognitive impairment Depression Anxiety	

N = Number of subjects; T = Treatment Group; C = Control Group; U = Usual care; cg = caregiver; pt = patient; NS = Not significant.  
All listed outcomes indicate improvement unless listed under NS Findings. \* denotes outcomes that were identified as primary outcomes.

**Supplemental Table S3. Summary of 8 Articles Testing Dyad Interventions.**

Author(s) (year) Country	Sample	Design	Skill- building	Psycho- educa- tion	Support	Face- to- Face	Tele- phone	Web	Total # ses- sions	Survivor outcomes (p<.05)	Caregiver outcomes (p<.05)
Bannon et al., 2020 USA <sup>29</sup>	N=17 dyads T=7 C=10	RCT	X	X Assess Tailored		2		4 Video- conf	6	Significance not tested due to small sample size. Descriptive data trends and Cohen's d.	Significance not tested due to small sample size. Descriptive data trends and Cohen's d.
Blanton et al., 2019 USA <sup>30</sup>	N=7 dyads	Quasi (single group)	X	X		10			10	Significance not tested due to small sample size. Descriptive data trends.	Significance not tested due to small sample size. Descriptive data trends.
McCarthy et al., 2020 USA <sup>31</sup>	N=16 dyads T=8 C=8	RCT	X	X Assess Tailored		X varied	X Varied	X Video- conf Varied	8 mode varied	Significance not tested due to small sample size. Descriptive data trends.	Significance not tested due to small sample size. Descriptive data trends.
Mei et al., 2018 China <sup>32</sup>	N=12 clusters N=75 dyads (spousal) T=25 (dyad) T=22 (spouse) U=28	RCT Cluster by health service provide rs	X reminisc ence	X Assess		8			8	Increased life satisfaction	Decreased burden Increased positive aspects Increased life satisfaction
Orlowska et al., 2018 Poland <sup>33</sup>	N=150 dyads T=80 C=80  FAP T=20 C=20 FAPS T=20	RCT		X		10 group			10 group	Survivors with <u>fluent</u> aphasia (FAP) - Increased support toward and from spouse - Lower depreciation toward spouse  Survivors with <u>non-fluent</u> aphasia (NFAP)	<u>Spouses</u> of survivors with <u>fluent</u> aphasia (FAPS) - Increased support from survivor

Author(s) (year) Country	Sample	Design	Skill- building	Psycho- educa- tion	Support	Face- to- Face	Tele- phone	Web	Total # ses- sions	Survivor outcomes (p<.05)	Caregiver outcomes (p<.05)
	C=20 NFAP T=20 C=20 NFAPS T=20 C=20									<ul style="list-style-type: none"> <li>- Increased support from spouse</li> <li>- Increased engagement from spouse</li> <li>- Lower depreciation toward and from spouse</li> </ul> <p><b>NS Findings</b> Survivors with <u>fluent</u> aphasia (FAP)</p> <ul style="list-style-type: none"> <li>- Engagement toward and from spouse</li> <li>-Depreciation from spouse</li> </ul> <p>FAP plus NFAP <u>combined:</u> -Engagement toward spouse</p>	<p><u>Spouses</u> of survivors with <u>non-fluent</u> aphasia (NFAPS)</p> <ul style="list-style-type: none"> <li>- Increased support from survivor</li> <li>- Increased engagement toward and from survivor</li> </ul> <p><b>NS Findings</b> <u>Spouses</u> of survivors with <u>fluent</u> aphasia (FAPS)</p> <ul style="list-style-type: none"> <li>-Support toward survivor</li> <li>- Engagement toward and from survivor</li> <li>- Depreciation toward and from survivor</li> </ul> <p><u>Spouses</u> of survivors with <u>non-fluent</u> aphasia (NFAPS)</p> <ul style="list-style-type: none"> <li>-Support toward survivor</li> <li>-Depreciation toward and from survivor</li> </ul> <p>FAPS plus NFAPS <u>combined:</u> -Support toward survivor -Depreciation toward and from</p>

Author(s) (year) Country	Sample	Design	Skill- building	Psycho- educa- tion	Support	Face- to- Face	Tele- phone	Web	Total # ses- sions	Survivor outcomes (p<.05)	Caregiver outcomes (p<.05)
Rasmus et al., 2020 Poland <sup>34</sup>	N=150 dyads T=80 C=80  FAP T=20 C=20 FAPS T=20 C=20 NFAP T=20 C=20 NFAPS T=20 C=20	RCT		X		10 group			10 group	FAP plus NFAP combined, time by therapy interaction:  -Overall relationship quality -Relationship consensus -Relationship satisfaction -Affectional expression  <b>NS Findings</b> Relationship cohesion	FAPS plus NFAPS combined, time by therapy interaction:  - Overall relationship quality - Relationship consensus  <b>NS Findings</b> -Relationship cohesion - Relationship satisfaction - Affectional expression
Terrill et al, 2018 USA <sup>35</sup>	N=11 dyads T=11	Quasi- single group	X stress, goal			1			1	Significance not tested due to small sample size. Descriptive data trends.	Significance not tested due to small sample size. Descriptive data trends.
Ugur et al., 2019 Turkey <sup>36</sup>	N=86 T=43 U=43	RCT		X Assess Tailored based on survivor needs		5			5		Burden (between group post-test) Quality of life mental role and vitality (between group post- test) <b>NS Findings</b> Quality of life general health, physical function, physical role, social function, pain and mental function.

N = Number of subjects; T = Treatment Group; C = Control Group; U = Usual care; cg = caregiver; pt = patient; NS = Not significant.  
All listed outcomes indicate improvement unless listed under NS Findings. \* denotes outcomes that were identified as primary outcomes.