

## APPENDIX A. SEARCH STRATEGIES

PubMed: April 13, 2018 and October 31, 2018

Set	Terms	Results
#1	"Epilepsy"[Mesh] OR epilepsy[tiab] OR epilepsies[tiab] OR epileptic[tiab] OR epileptics[tiab] OR epilepsia[tiab]	139,312
#2	"Self-Management"[Mesh] OR "Self Care"[Mesh] OR "Self-Control"[Mesh] OR self[tiab] OR selfcare[tiab] OR selfmanagement[tiab] OR selftreatment[tiab] OR selfcontrol[tiab] OR selfhelp[tiab]	646,690
#3	"Patient Compliance"[Mesh] OR "Medication Adherence"[tiab] OR "Medication Compliance"[tiab] OR "Medication nonadherence"[tiab] OR "Medication non adherence"[tiab] OR "Medication Noncompliance"[tiab] OR "Medication non compliance"[tiab] OR "Medication Persistence"[tiab] OR "Health Knowledge, Attitudes, Practice"[Mesh]	162,567
#4	"Behavior Therapy"[Mesh] OR behavior therap*[tiab] OR behaviour therap*[tiab] OR behavioral therap*[tiab] OR behavioural therap*[tiab] OR "anger management"[tiab] OR biofeedback[tiab] OR "bio-feedback"[tiab] OR myobiofeedback[tiab] OR myofeedback[tiab] OR "physiological feedback"[tiab] OR "neuro feedback"[tiab] OR neurofeedback[tiab] OR cognitive therap*[tiab] OR cognition therap*[tiab] OR acceptance therap*[tiab] OR commitment therap*[tiab] OR mindfulness[tiab] OR "MBSR"[tiab] OR "psychologic desensitization"[tiab] OR "psychological desensitization"[tiab] OR "Eye Movement Desensitization and Processing"[tiab] OR EMDR[tiab] OR implosive therap*[tiab] OR exposure therap*[tiab] OR relaxation therap*[tiab] OR "relaxation techniques"[tiab] OR "relaxation technique"[tiab] OR "meditation"[tiab] OR meditate[tiab] OR meditates[tiab] OR "Mind-Body Therapies"[Mesh:NoExp] OR "mind body therapy"[tiab] OR "mind body therapies"[tiab] OR "mind body medicine"[tiab] OR "Breathing Exercises"[Mesh] OR "breathing exercise"[tiab] OR "breathing exercises"[tiab] OR "respiratory muscle training"[tiab] OR "paced respiration"[tiab] OR "Imagery (Psychotherapy)"[Mesh] OR "guided imagery"[tiab] OR "Alexander Technique"[tiab] OR problem-solving therap*[tiab] OR psychodynamic therap*[tiab] OR psychotherap*[tiab] OR "stress reduced"[tiab] OR "stress reducer"[tiab] OR "stress reducers"[tiab] OR "stress reducing"[tiab] OR "stress reduction"[tiab] OR "stress reductions"[tiab] OR "stress reductive"[tiab]	125,605
#5	#1 AND (#2 OR #3 OR #4) AND English[lang]	3,887
#6	#5 NOT (animals[mh] NOT humans[mh]) NOT (("Adolescent"[Mesh] OR "Child"[Mesh] OR "Infant"[Mesh]) NOT "Adult"[Mesh])	3,080
#7	#6 AND (("randomized controlled trial"[ptyp] OR "controlled clinical trial"[ptyp] OR randomized[tiab] OR randomised[tiab] OR randomization[tiab] OR randomisation[tiab] OR placebo[tiab] OR randomly[tiab] OR trial[tiab] OR groups[tiab] OR "Comparative Study"[ptyp] OR "clinical trial"[pt] OR "clinical trial"[tiab] OR "clinical trials"[tiab] OR "evaluation studies"[ptyp] OR "evaluation studies as topic"[MeSH] OR "evaluation study"[tiab] OR "evaluation studies"[tiab] OR drug therapy[sh] OR "intervention study"[tiab] OR "intervention studies"[tiab] OR "cohort studies"[MeSH] OR cohort[tiab] OR "longitudinal studies"[MeSH] OR longitudinal[tiab] OR longitudinally[tiab] OR prospective[tiab] OR prospectively[tiab] OR "follow up"[tiab] OR "comparative study"[pt] OR "comparative studies"[tiab] OR nonrandom[tiab] OR "non-random"[tiab] OR nonrandomized[tiab] OR "non-randomized"[tiab] OR nonrandomised[tiab] OR "non-randomised"[tiab] OR quasi-experiment*[tiab] OR quasiexperiment*[tiab] OR quasirandom*[tiab] OR quasi-random*[tiab] OR quasi-control*[tiab] OR quasicontrol*[tiab] OR (controlled[tiab] AND (trial[tiab] OR study[tiab])) OR "pre-post"[tiab] OR "posttest"[tiab] OR "post-test"[tiab] OR pretest[tiab] OR pre-test[tiab] OR (before[tiab] AND after[tiab]) OR (before[tiab] AND during[tiab])) NOT (Editorial[ptyp] OR Letter[ptyp] OR Comment[ptyp]))	1,695

Set	Terms	Results
#8	#6 AND (("Delivery of Health Care"[Mesh] OR "healthcare delivery"[tiab] OR "health care delivery"[tiab] OR "healthcare system"[tiab] OR "healthcare systems"[tiab] OR "health care system"[tiab] OR "health care systems"[tiab] OR "Health Facilities"[Mesh] OR outpatient[tiab] OR outpatients[tiab] OR clinic[tiab] OR clinics[tiab] OR "primary care"[tiab] OR program[tiab] OR programs[tiab] OR programme[tiab] OR programmes[tiab] OR protocol[tiab] OR protocols[tiab] OR policy[tiab] OR policies[tiab] OR guideline[tiab] OR guidelines[tiab] OR "standards"[Subheading] OR standard[tiab] OR standards[tiab] OR initiative[tiab] OR initiatives[tiab] OR strategy[tiab] OR strategies[tiab] OR "Evidence-Based Practice"[Mesh]) AND ("Program Evaluation"[Mesh] OR "Outcome and Process Assessment (Health Care)"[Mesh] OR "Diffusion of Innovation"[Mesh] OR implement[tiab] OR implements[tiab] OR implementation[tiab] OR implemented[tiab] OR implementing[tiab] OR preimplementation[tiab] OR postimplementation[tiab] OR uptake[tiab] OR adopt*[tiab] OR adapt*[tiab] OR facilitator*[tiab] OR feasible[tiab] OR feasibility[tiab] OR effective[tiab] OR effectiveness[tiab] OR barrier[tiab] OR barriers[tiab] OR benefit[tiab] OR benefits[tiab]))	568
#9	#7 OR #8	1,860

### Cochrane Central: April 13, 2018

Set	Terms	Results
#1	[mh Epilepsy] OR (epilepsy or epilepsies or epileptic or epileptics or epilepsia):ti,ab,kw	5,832
#2	[mh "Self-Management"] OR [mh "Self Care"] OR [mh "Self-Control"] OR (self OR selfcare OR selfmanagement OR selftreatment OR selfcontrol OR selfhelp):ti,ab,kw	62,762
#3	[mh "Patient Compliance"] OR [mh "Health Knowledge, Attitudes, Practice"] OR ("Medication Adherence" OR "Medication Compliance" OR "Medication nonadherence" OR "Medication non adherence" OR "Medication Noncompliance" OR "Medication non compliance" OR "Medication Persistence"):ti,ab,kw	18,270
#4	[mh "Behavior Therapy"] OR [mh^ "Mind-Body Therapies"] OR [mh "Breathing Exercises"] OR [mh "Imagery (Psychotherapy)"] OR ((behavior near/2 therap*) or (behaviour near/2 therap*) or (behavioral near/2 therap*) or (behavioural near/2 therap*) OR "anger management" OR biofeedback OR "bio-feedback" OR myobiofeedback OR myofeedback OR "physiological feedback" OR "neuro feedback" OR neurofeedback OR (cognitive NEAR/2 therap*) OR (cognition NEAR/2 therap*) OR (acceptance NEAR/2 therap*) OR (commitment NEAR/2 therap*) OR mindfulness OR MBSR OR "psychologic desensitization" OR "psychological desensitization" OR "Eye Movement Desensitization and Processing" OR EMDR OR (implosive NEAR/2 therap*) OR (exposure NEAR/2 therap*) OR (relaxation NEAR/2 therap*) OR "relaxation techniques" OR "relaxation technique" OR meditation OR meditate OR meditates OR "mind body therapy" OR "mind body therapies" OR "mind body medicine" OR "breathing exercise" OR "breathing exercises" OR "respiratory muscle training" OR "paced respiration" OR "guided imagery" OR "Alexander Technique" OR ("problem-solving" NEAR/2 therap*) OR (psychodynamic NEAR/2 therap*) OR psychotherap* OR "stress reduced" OR "stress reducer" OR "stress reducers" OR "stress reducing" OR "stress reduction" OR "stress reductions" OR "stress reductive"):ti,ab,kw	37,550
#5	#1 AND (#2 OR #3 OR #4) AND English[lang]	432
#6	#5 NOT (([mh Adolescent] OR [mh Child] OR [mh Infant]) NOT [mh Adult])	326

## PsycINFO: April 13, 2018

Set	Terms	Results
<b>S1</b>	DE "Epilepsy" OR DE "Epileptic Seizures" OR TI ( epilepsy OR epilepsies OR epileptic OR epileptics OR epilepsia) OR AB ( epilepsy OR epilepsies OR epileptic OR epileptics OR epilepsia)	<b>38,409</b>
<b>S2</b>	DE "Self-Management" OR DE "Self-Monitoring" OR DE "Self-Control" OR TI ( self OR selfcare OR selfmanagement OR selftreatment OR selfcontrol OR selfhelp) OR AB ( "self-care*" OR "self-manage*" OR "self-treat*" OR "self-control" OR "self-help" OR "self care" OR "self management" OR "self treatment" OR "self control" OR "self help" OR selfcare OR selfmanagement OR selftreatment OR selfcontrol OR selfhelp)	<b>160,644</b>
<b>S3</b>	DE "Compliance" OR DE "Treatment Compliance" OR DE "Health Attitudes" OR TI ( "Medication Adherence" OR "Medication Compliance" OR "Medication nonadherence" OR "Medication non adherence" OR "Medication Noncompliance" OR "Medication non compliance" OR "Medication Persistence") OR AB ( "Medication Adherence" OR "Medication Compliance" OR "Medication nonadherence" OR "Medication non adherence" OR "Medication Noncompliance" OR "Medication non compliance" OR "Medication Persistence")	<b>29,260</b>
<b>S4</b>	DE "Behavior Therapy" OR DE "Guided Imagery" OR DE "Alternative Medicine" OR DE "Stress and Coping Measures" OR DE "Stress Management" OR DE "Emotional Control" OR DE "Anger Control" OR DE "Relaxation Therapy" OR DE "Progressive Relaxation Therapy" OR DE "Mindfulness" OR AB ( "behavior therap*" OR "behaviour therap*" OR "behavioral therap*" OR "behavioural therap*" OR "anger management" OR biofeedback OR "bio-feedback" OR myobiofeedback OR myofeedback OR "physiological feedback" OR "neuro feedback" OR neurofeedback OR "cognitive therap*" OR "cognition therap*" OR "acceptance therap*" OR "commitment therap*" OR mindfulness OR "MBSR" OR "psychologic desensitization" OR "psychological desensitization" OR "Eye Movement Desensitization and Processing" OR EMDR OR "implosive therap*" OR "exposure therap*" OR "relaxation therap*" OR "relaxation techniques" OR "relaxation technique" OR meditation OR meditate OR meditates OR "mind body therapy" OR "mind body therapies" OR "mind body medicine" OR "breathing exercise" OR "breathing exercises" OR "respiratory muscle training" OR "paced respiration" OR "guided imagery" OR "Alexander Technique" OR "problem-solving therap*" OR "psychodynamic therap*" OR psychotherap* OR "stress reduced" OR "stress reducer" OR "stress reducers" OR "stress reducing" OR "stress reduction" OR "stress reductions" OR "stress reductive" ) OR TI ( "behavior therap*" OR "behaviour therap*" OR "behavioral therap*" OR "behavioural therap*" OR "anger management" OR biofeedback OR "bio-feedback" OR myobiofeedback OR myofeedback OR "physiological feedback" OR "neuro feedback" OR neurofeedback OR "cognitive therap*" OR "cognition therap*" OR "acceptance therap*" OR "commitment therap*" OR mindfulness OR MBSR OR "psychologic desensitization" OR "psychological desensitization" OR "Eye Movement Desensitization and Processing" OR EMDR OR "implosive therap*" OR "exposure therap*" OR "relaxation therap*" OR "relaxation techniques" OR "relaxation technique" OR meditation OR meditate OR meditates OR "mind body therapy" OR "mind body therapies" OR "mind body medicine" OR "breathing exercise" OR "breathing exercises" OR "respiratory muscle training" OR "paced respiration" OR "guided imagery" OR "Alexander Technique" OR "problem-solving therap*" OR "psychodynamic therap*" OR psychotherap* OR "stress reduced" OR "stress reducer" OR "stress reducers" OR "stress reducing" OR "stress reduction" OR "stress reductions" OR "stress reductive" )	<b>183,898</b>
<b>S5</b>	S1 AND (S2 OR S3 OR S4) Limiters - Publication Type: All Journals; Language: English; Age Groups: Adulthood (18 yrs & older); Population Group: Human; Document Type: Journal Article; Exclude Dissertations	<b>583</b>

CINAHL: April 13, 2018

Set	Terms	Results
S1	(MH "Epilepsy+") OR TI ( epilepsy OR epilepsies OR epileptic OR epileptics OR epilepsia) OR AB ( epilepsy OR epilepsies OR epileptic OR epileptics OR epilepsia)	18,173
S2	(MH "Self Care+") OR TI ( self OR selfcare OR selfmanagement OR selftreatment OR selfcontrol OR selfhelp) OR AB ( "self-care*" OR "self-manage*" OR "self-treat*" OR "self-control" OR "self-help" OR "self care" OR "self management" OR "self treatment" OR "self control" OR "self help" OR selfcare OR selfmanagement OR selftreatment OR selfcontrol OR selfhelp)	97,606
S3	(MH "Patient Compliance+") OR (MH "Attitude to Health+") OR TI ( "Medication Adherence" OR "Medication Compliance" OR "Medication nonadherence" OR "Medication non adherence" OR "Medication Noncompliance" OR "Medication non compliance" OR "Medication Persistence") OR AB ( "Medication Adherence" OR "Medication Compliance" OR "Medication nonadherence" OR "Medication non adherence" OR "Medication Noncompliance" OR "Medication non compliance" OR "Medication Persistence")	129,591
S4	(MH "Behavior Modification+") OR (MH "Guided Imagery") OR (MH "Control (Psychology)+") OR (MH "Biofeedback") OR AB ( "behavior therap*" OR "behaviour therap*" OR "behavioral therap*" OR "behavioural therap*" OR "anger management" OR biofeedback OR "bio-feedback" OR myobiofeedback OR myofeedback OR "physiological feedback" OR "neuro feedback" OR neurofeedback OR "cognitive therap*" OR "cognition therap*" OR "acceptance therap*" OR "commitment therap*" OR mindfulness OR "MBSR" OR "psychologic desensitization" OR "psychological desensitization" OR "Eye Movement Desensitization and Processing" OR EMDR OR "implosive therap*" OR "exposure therap*" OR "relaxation therap*" OR "relaxation techniques" OR "relaxation technique" OR meditation OR meditate OR meditates OR "mind body therapy" OR "mind body therapies" OR "mind body medicine" OR "breathing exercise" OR "breathing exercises" OR "respiratory muscle training" OR "paced respiration" OR "guided imagery" OR "Alexander Technique" OR "problem-solving therap*" OR "psychodynamic therap*" OR psychotherap* OR "stress reduced" OR "stress reducer" OR "stress reducers" OR "stress reducing" OR "stress reduction" OR "stress reductions" OR "stress reductive" ) OR TI ( "behavior therap*" OR "behaviour therap*" OR "behavioral therap*" OR "behavioural therap*" OR "anger management" OR biofeedback OR "bio-feedback" OR myobiofeedback OR myofeedback OR "physiological feedback" OR "neuro feedback" OR neurofeedback OR "cognitive therap*" OR "cognition therap*" OR "acceptance therap*" OR "commitment therap*" OR mindfulness OR MBSR OR "psychologic desensitization" OR "psychological desensitization" OR "Eye Movement Desensitization and Processing" OR EMDR OR "implosive therap*" OR "exposure therap*" OR "relaxation therap*" OR "relaxation techniques" OR "relaxation technique" OR meditation OR meditate OR meditates OR "mind body therapy" OR "mind body therapies" OR "mind body medicine" OR "breathing exercise" OR "breathing exercises" OR "respiratory muscle training" OR "paced respiration" OR "guided imagery" OR "Alexander Technique" OR "problem-solving therap*" OR "psychodynamic therap*" OR psychotherap* OR "stress reduced" OR "stress reducer" OR "stress reducers" OR "stress reducing" OR "stress reduction" OR "stress reductions" OR "stress reductive" )	71,641
S5	S1 AND (S2 OR S3 OR S4) Limiters - English Language; Age Groups: All Adult; Publication Type: Journal Article	238

Searches retrieved 2,996 records before duplicates were removed.

## APPENDIX B. PEER REVIEW COMMENTS/AUTHOR RESPONSES

Question Text	Reviewer Number	Comment	Response
Are the objectives, scope, and methods for this review clearly described?	1	Yes	Acknowledged
	2	Yes	Acknowledged
	3	Yes	Acknowledged
	4	Yes	Acknowledged
	6	Yes	Acknowledged
	7	Yes	Acknowledged
Is there any indication of bias in our synthesis of the evidence?	1	No	Acknowledged
	2	No	Acknowledged
	3	No	Acknowledged
	4	No	Acknowledged
	6	No	Acknowledged
	7	No	Acknowledged
Are there any <u>published</u> or <u>unpublished</u> studies that we may have overlooked?	1	No	Acknowledged
	2	No	Acknowledged
	3	Yes - Would consider an addendum to include the Sajatovic et al study in Epilepsia Sept 2018, 1684-95. This study appears to have a positive outcome and may offset some of the disappointment of the other negative or inconclusive studies reviewed.	Thank you. We identified this study when we updated our search and it is included in the final report.
	4	No	Acknowledged
	6	Yes - Sajatovic M et al. A 6-month prospective randomized controlled trial of remotely delivered group format epilepsy self-management versus waitlist control for high-risk people with epilepsy. Epilepsia. 2018;59 (9):1684–1695)	Thank you. We identified this study when we updated our search and it is included in the final report.
	7	There are a number of published studies that would make the case for why this is important based on data for Veterans.	We cite Veteran-specific data obtained from the Epilepsy Centers of Excellence.
Additional suggestions or comments can be provided below. If applicable,	1	<p>Recommend clearly defining "self-efficacy" and how this differs from self-management.</p> <p>On page 3 (and elsewhere) it is stated that 6 educational interventions and 8 psychosocial therapy interventions were included for review in KQ1; however, the Table lists these numbers as 6 and 12 respectively. Please clarify the reason for this difference.</p>	<p>Self-management is carefully defined in the report. We have added a definition for self-efficacy.</p> <p>This apparent discrepancy relates to the number of studies using the interventions versus the number of intervention arms using the</p>

Question Text	Reviewer Number	Comment	Response
<p>please indicate the page and line numbers from the draft report.</p>			<p>interventions. We have carefully edited to specify studies or intervention arms.</p>
	2	<p>Document is quite thorough, well-written and clear. Though it does not directly address patient centered care or Whole Health, findings regarding the importance of personalization for implementation are relevant.</p> <p>Pg. 50, lines 9-11; Suggested rewording: Self-management of chronic illness that is aligned with an individual's values and preferences is considered an important component in delivering patient-centered care in VHA, and is a pillar of VHA's Patient Aligned Care Teams (PACT).</p> <p>I am unfamiliar with the reference cited (#75) and am not sure that it is reflective of current perspectives re. Whole Health and PCC in VHA. The Office of Patient Centered Care and Cultural Transformation website is: <a href="https://vaww.va.gov/patientcenteredcare/">https://vaww.va.gov/patientcenteredcare/</a></p>	<p>Thank you. The suggested edit has been made.</p> <p>We think the reference is relevant. We have added a link to the Office of Patient Centered Care and Cultural Transformation.</p>
	3	<p>Reference 2 is not sited properly (ref 2 on page 9 does not seem to match ref 2 on page 48). Could not find a definition regarding how a setting was deemed eligible.</p>	<p>Thank you for detecting this citation error. The citation has been updated (Rehman et al., 2015).</p> <p>Setting is described in Table 1 (Eligibility Criteria). "Setting" is this instance refers to eligible modes of delivery, rather than a physical location.</p>
	4		
	6	<p>It is well written and valuable to providers in VAH.</p> <p>I found following descriptions that may be revised if the most recent publication (see below) will be included.</p> <p>Page 8 (p 2) Data Sources and Searches We searched MEDLINE (via PubMed), PsycINFO, and CINAHL from inception through April 13, 2018. We also examined the bibliographies of recent reviews for additional relevant studies.</p>	<p>Thank you.</p> <p>Thank you. Except as noted, these statements were revised after the addition of the Sajatovic study.</p> <p>This statement is accurate.</p>



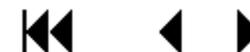
Question Text	Reviewer Number	Comment	Response
		<p>Page 12 (p 6) “No studies directly addressed facilitators and barriers to implementing and adopting self-management interventions for patients with epilepsy in the VHA or other large health systems. No studies directly enrolled Veterans with epilepsy.”</p> <p>Page 12 (p6) “We found limited evidence for benefit on selected primary or secondary outcomes. Educational self-management interventions may improve the use of self-management practices. Sparse evidence suggested possible benefit of psychosocial therapy interventions on self efficacy. Self-management interventions did not improve other outcomes but the certainty of evidence for these finding was often low.”</p> <p>Page 13 (p7) “None of the included studies were conducted in VHA or specifically with Veterans.”</p> <p>Page 13 (p7) Conclusions “These self-management interventions showed clinically important benefit for only a limited number of outcomes, but the confidence in these findings was mostly low.”</p> <p>There is a recent article published in Epilepsia September issue of 2018 (Sajatovic M, Colon-Zimmermann K, Kahriman M, Fuentes-Casiano E, Liu H, Tatsuoka C, Cassidy KA, Lhatoo S, Einstadter D, Chen P. A 6-month prospective randomized controlled trial of remotely delivered group format epilepsy self-management versus waitlist control for high-risk people with epilepsy. Epilepsia. 2018;59 (9):1684–1695)</p> <p>This study, if included in this review, will enhance the quality of current review and alter narratives described above in executive summary and through the rest of manuscript of review.</p> <p>This study was conducted at the Cleveland VA Medical Center, and University Hospitals of Cleveland Neurological Institute, with subjects including veterans. I would recommend to include this study in this review. It is a randomized controlled trial using remotely delivered group format epilepsy self-management (n=60) versus waitlist control (n=6) for</p>	<p>These statements about educational interventions were updated.</p> <p>This statement remains accurate.</p> <p>This study is included in the final report.</p>



Question Text	Reviewer Number	Comment	Response
		<p>high risk individuals with epilepsy. This study will help in addressing all 3 questions this review intended to answer, and will enhance the quality of this review.</p> <p>Summary of this study is as below.                      Objective: Despite advances in care, many people with epilepsy have negative health events (NHEs) such as accidents, emergency department visits, and poor quality of life. Self-management for people with epilepsy and a history of negative health events”(SMART) is a novel group format epilepsy self-management intervention. A community participatory approach informed the refinement of SMART, which was then tested in a 6-month randomized controlled trial of SMART (n = 60) versus waitlist control (WL, n = 60).</p> <p>Methods: Participants were adults aged ≥18 years with epilepsy and an NHE within the past 6 months (seizure, accident, self-harm attempt, emergency department visit, or hospitalization). Assessments were conducted at screening, baseline, 10 weeks, and 24 weeks (6 months). Primary outcome was 6-month change in total NHE count. Additional outcomes included depression on the nine-item Patient Health Questionnaire and Montgomery-Asberg Depression Rating Scale, quality of life on the 10-item Quality of Life in Epilepsy, functioning on the 36-item Short-Form Health Survey, and seizure severity on the Liverpool Seizure Severity Scale.</p> <p>Results: Mean age was 41.3 years (SD = 11.82), 69.9% were African American, 74.2% were unemployed, and 87.4% had an annual income &lt; US\$25 000; 57.5% had a seizure within 30 days of enrollment. Most NHEs were seizures. Six-month study attrition was 14.2% overall and similar between arms. Individuals randomized to SMART had greater reduction in total median NHEs from baseline to 6 months compared to WL (P = 0.04). SMART was also associated with improved nine-item Patient Health Questionnaire (P = 0.032), Montgomery-Asberg Depression Rating Scale (P = 0.002), 10-item Quality of Life in Epilepsy (P &lt; 0.001), and 36-item Short-Form Health Survey (P = 0.015 physical health, P = 0.003 mental health) versus WL. There was no difference in seizure severity.</p>	



Question Text	Reviewer Number	Comment	Response
		<p>Significance: SMART is associated with reduced health complications and improved mood, quality of life, and health functioning in high-risk people with epilepsy. Additional efforts are needed to investigate potential for scale-up.</p> <p>Curriculum of “Self-management for people with epilepsy and a history of negative health events” (SMART)</p> <p>Session 1 Orientation and introductions; Emphasize ground rules; Establishment of a therapeutic relationship; Facts and myths about epilepsy and general epilepsy management principles</p> <p>Session 2 Relationship of epilepsy and stress; Stigma and “double stigma”; Strategies to cope with stigma; Introduction to personal goal-setting</p> <p>Session 3 Treatments for epilepsy; Complications of epilepsy; Minimizing epilepsy complications; The importance of daily routine and good sleep habits</p> <p>Session 4 Problem-solving skills and the IDEA approach (Identify the problem, Define possible solutions, Evaluate the solutions, Act on the best solution); Talking with your health care providers; Role play of communication with care providers</p> <p>Session 5 Nutrition for best physical and emotional health; Substance abuse and its effects on epilepsy; Specific stress-management approaches</p> <p>Session 6 Effects of exercise and being outdoors on physical and emotional health; Medication routines; Prioritizing medication side effects and discussing it with your clinician</p> <p>Session 7 Social supports and using your available supports; Advocacy groups for epilepsy; A personal care plan to take care of the mind and the body</p> <p>Session 8 Normalizing your life in spite of having a chronic but unpredictable condition; Self- management as a life-style; Acknowledgement of group progress; Setting the stage for Ongoing Illness Management and Recovery (Step 2)</p>	
	7	The references in the body of the document seemed to be the wrong references.	Thank you, the references have been updated.

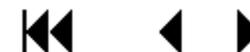


## APPENDIX C. INTERVENTION CHARACTERISTICS TABLES

For full study citations in this appendix, please refer to the report’s main reference list.

### RANDOMIZED TRIALS

Study	Setting/Delivery Mode Intervention Target	Type of Provider Specialized Training	Intervention Skills	Intervention Techniques Goal-setting	Frequency/ Duration of Contact Comparator
<b><i>Educational Self-management Interventions</i></b>					
Dilorio, 2011 <sup>47</sup>	Asynchronous internet-based delivery <sup>a</sup>  Patient targeted	Peer online discussion forum, electronic-based delivery  No special training	<ul style="list-style-type: none"> <li>• Knowledge</li> <li>• Symptom-monitoring using MyLog</li> <li>• Problem-solving, decision-making: "planning the next steps"</li> <li>• Stress management module</li> <li>• Sleep module</li> <li>• Medication adherence module</li> </ul>	CBT, PST, relaxation technique, sleep intervention, motivational interviewing  Collaborative goal-setting and automated goal-setting	Weekly use of program for 6 weeks; length of sessions not specified  Waitlist control
Fraser, 2015 <sup>48</sup>	<ul style="list-style-type: none"> <li>• Group-based intervention, with 1 peer with epilepsy as the leader<sup>a</sup></li> <li>• Additional written information via workbook and mailed materials</li> </ul> Patient targeted	<ul style="list-style-type: none"> <li>• Peer with epilepsy, 7 years' experience as a neurologic employment specialist</li> <li>• Social worker-delivered: rehabilitation psychologist</li> </ul> No special training	<ul style="list-style-type: none"> <li>• Explicit knowledge</li> <li>• Problem-solving, decision-making: assertive communication, "managing my epilepsy" care module</li> <li>• Stress management: dealing with stress and the blues modules</li> <li>• Mailed materials on "safe exercise programs" as related to individuals' goals</li> </ul>	<ul style="list-style-type: none"> <li>• Likely CBT-based, but not explicitly stated</li> <li>• Multicomponent intervention with CBT-related skills of problem solving and stress management</li> </ul> Collaboratively set weekly personal goals	8 weekly, 75-minute sessions  Waitlist control



Study	Setting/Delivery Mode Intervention Target	Type of Provider Specialized Training	Intervention Skills	Intervention Techniques Goal-setting	Frequency/ Duration of Contact Comparator
			<ul style="list-style-type: none"> <li>Medication adherence: "managing my epilepsy" care module</li> </ul>		
Helgeson, 1990 <sup>51</sup>	<p>Large group-based intervention with multimedia presentation<sup>a</sup></p> <p>Patient targeted, but family invited to attend</p>	Not reported	<ul style="list-style-type: none"> <li>Explicit knowledge</li> <li>Problem-solving, decision-making skills to identify and cope with psychological, social, family, and work-related problems</li> <li>Information on compliance issues related to epilepsy</li> </ul>	<p>Identification and coping skills presented as "cognitive-behavioral"</p> <p>Goal-setting not presented</p>	<p>2 consecutive days</p> <p>Waitlist control</p>
May, 2002 <sup>53</sup>	<ul style="list-style-type: none"> <li>Group-based intervention with 2 instructors<sup>a</sup></li> <li>Written manual also provided</li> </ul> <p>Patient targeted</p>	<p>Any professionals or peers are eligible, but not reported for current study</p> <p>MOSES training required</p>	<ul style="list-style-type: none"> <li>Explicit knowledge</li> <li>Discussion of how to self-monitor and record symptoms</li> <li>Discussion of problem-solving for seizure risk factors</li> <li>Discussion of gaining emotional-coping skills</li> <li>Discussion of communication and cooperation with provider, including medication management</li> </ul>	<ul style="list-style-type: none"> <li>Explicit education and didactic discussions</li> <li>Multicomponent intervention with CBT-related and PST-related skills of problem-solving and stress management</li> <li>CBT and PST not explicitly discussed</li> </ul> <p>Goal-setting not presented</p>	<p>2 consecutive days totaling 16 hours</p> <p>Waitlist control</p>



Study	Setting/Delivery Mode Intervention Target	Type of Provider Specialized Training	Intervention Skills	Intervention Techniques Goal-setting	Frequency/ Duration of Contact Comparator
Ridsdale, 2018 <sup>57</sup>	<p>Group-based intervention with 2 trained epilepsy nurse specialists</p> <p>Patient targeted, but family invited to attend</p>	<p>Epilepsy nurse specialists and clinical psychologists trained in SMILE</p> <p>SMILE specialized training required</p>	<ul style="list-style-type: none"> <li>· Explicit knowledge</li> <li>· Discussion of how to self-monitor and record symptoms</li> <li>· Discussion of problem-solving for seizure risk factors</li> <li>· Discussion for gaining self-efficacy of seizure control</li> <li>· Discussion of stress management</li> <li>· Discussion of safety, including preventing injuries</li> </ul>	<ul style="list-style-type: none"> <li>· Explicit education and didactic discussions</li> <li>· Multicomponent intervention with CBT-related and PST-related skills of problem-solving and stress management</li> <li>· CBT and PST never explicitly discussed</li> </ul> <p>Goal-setting not presented</p>	<p>2 consecutive days totaling 16 hours</p> <p>Waitlist control</p>

Study	Setting/Delivery Mode Intervention Target	Type of Provider Specialized Training	Intervention Skills	Intervention Techniques Goal-setting	Frequency/ Duration of Contact Comparator
Sajatovic 2018 <sup>58</sup>	<ul style="list-style-type: none"> <li>Group-based intervention with in-person, followed by synchronous internet-based delivery led by 1 trained nurse educator and 1 trained peer educator.</li> <li>Follow-up 1:1 telephone calls with nurse educator and peer educator</li> </ul> <p>Patient targeted</p>	<p>2-person interventionist team of one nurse educator and one peer educator</p> <p>2-day specialized training and ongoing check-in support</p>	<ul style="list-style-type: none"> <li>Explicit knowledge</li> <li>Discussion of problem-solving techniques using "IDEA" framework</li> <li>Discussion of stress management strategies</li> <li>Discussion of physical activity, sleep, and decreased substance abuse benefits</li> <li>Discussion of diet benefits</li> <li>Discussion and role-playing of communication with providers</li> <li>Discussion of medication adherence and side-effects management</li> </ul>	<ul style="list-style-type: none"> <li>Explicit education and didactic discussions</li> <li>Problem-solving technique practice via "IDEA" framework</li> <li>Role-playing communication with providers</li> </ul> <p>Patient-driven goal setting and checking on goal progress</p>	<p>Roughly 8 weeks of group sessions, where the first in-person session was 60-90 minutes, followed by 6 phone calls over 12 weeks of 10-15 minutes each</p> <p>Waitlist control</p>
<b>Psychosocial Therapy Self-management Interventions</b>					
<p>Caller, 2016<sup>46</sup></p> <p>Arm 1=PST</p>	<ul style="list-style-type: none"> <li>In-person group orientation</li> <li>Telephonic individual sessions, with memory coach<sup>a</sup></li> <li>Written educational materials</li> </ul> <p>Patient targeted</p>	<p>Epilepsy specialized nurse (RN or ARNP)</p> <p>No training required</p>	<ul style="list-style-type: none"> <li>Explicit knowledge</li> <li>Problem-solving therapy for organizational skills, seizure management, and social skills</li> </ul>	<ul style="list-style-type: none"> <li>Explicit education</li> <li>Problem-solving therapy</li> </ul> <p>Collaborative goal-setting</p>	<p>Eight 45-60 minute sessions</p> <p>Active comparator and waitlist control</p>
<p>Caller, 2016<sup>46</sup></p> <p>Arm 2=PST plus</p>	<ul style="list-style-type: none"> <li>In-person group orientation</li> </ul>	<p>Epilepsy specialized nurse (RN or ARNP)</p>	<ul style="list-style-type: none"> <li>Explicit knowledge</li> <li>Problem-solving therapy for</li> </ul>	<ul style="list-style-type: none"> <li>Explicit education</li> <li>Problem-solving therapy</li> </ul>	<ul style="list-style-type: none"> <li>Eight 45-60 minute sessions</li> </ul>



Study	Setting/Delivery Mode Intervention Target	Type of Provider Specialized Training	Intervention Skills	Intervention Techniques Goal-setting	Frequency/ Duration of Contact Comparator
	<ul style="list-style-type: none"> <li>• Telephonic individual sessions, with memory coach<sup>a</sup></li> <li>• Asynchronous training on commercial gaming device<sup>a</sup></li> <li>• Written educational materials</li> </ul> <p>Patient targeted</p>	<p>No training required</p>	<ul style="list-style-type: none"> <li>organizational skills, seizure management, and social skills</li> <li>• Cognitive training with gaming console</li> </ul>	<ul style="list-style-type: none"> <li>• Cognitive training via gaming console</li> </ul> <p>Collaborative goal-setting</p>	<ul style="list-style-type: none"> <li>• 8 weeks of 20-40 minutes of training on gaming console 5 times/week (40 sessions)</li> </ul> <p>Active comparator and waitlist control</p>
<p>Gandy, 2014<sup>49</sup></p>	<ul style="list-style-type: none"> <li>• In-person introductory sessions</li> <li>• Individual in-person sessions<sup>a</sup></li> </ul> <p>Patient targeted</p>	<ul style="list-style-type: none"> <li>• Predoctoral clinical psychology interns</li> <li>• One-day treatment manual training</li> </ul>	<ul style="list-style-type: none"> <li>• Explicit knowledge:</li> <li>• Symptom management</li> <li>• Problem-solving skills</li> <li>• Communication training</li> <li>• Coping with anxiety and depression related to epilepsy</li> <li>• Medication adherence</li> </ul>	<ul style="list-style-type: none"> <li>• Explicit education and didactic discussions</li> <li>• Multicomponent CBT</li> <li>• Behavioral activation</li> <li>• Symptom-monitoring</li> </ul> <p>Collaborative goal-setting</p>	<ul style="list-style-type: none"> <li>• 1-2 hour introductory session</li> <li>• 8 weeks for 60 minutes each</li> </ul> <p>Waitlist control</p>
<p>Haut, 2018<sup>50</sup></p>	<ul style="list-style-type: none"> <li>• In-person training session and refresher session</li> <li>• Smartphone-assisted asynchronous 2-3 times daily communication</li> </ul> <p>Patient targeted</p>	<p>Psychologist</p> <p>No training specified</p>	<ul style="list-style-type: none"> <li>• Implicit knowledge</li> <li>• Symptom/seizure tracking with e-diary</li> <li>• Relaxation training via PMR</li> </ul>	<ul style="list-style-type: none"> <li>• PMR</li> <li>• Symptom/seizure monitoring</li> </ul> <p>Goal-setting not presented</p>	<ul style="list-style-type: none"> <li>• Two 1-hour training sessions</li> <li>• 12 weeks of twice daily PMR for a total of 20 minutes/day</li> <li>• 3 times/day e-diary reporting</li> </ul>



Study	Setting/Delivery Mode Intervention Target	Type of Provider Specialized Training	Intervention Skills	Intervention Techniques Goal-setting	Frequency/ Duration of Contact Comparator
					<ul style="list-style-type: none"> <li>• Additional e-diary reporting based on seizure events</li> </ul> <p>Active focused-attention</p>
Leenen, 2018 <sup>52</sup>	<ul style="list-style-type: none"> <li>• In-person group sessions led by 2 nurse-practitioners<sup>a</sup></li> <li>• Smartphone-assisted tracking via Eppy app</li> <li>• MEMS Caps</li> </ul> <p>Patient targeted but family invited to attend</p>	<p>Nurse practitioners</p> <p>No training specified</p>	<ul style="list-style-type: none"> <li>• Explicit knowledge</li> <li>• Symptom/seizure tracking</li> <li>• Stress management via proactive coping</li> <li>• Evaluation and management of risks</li> <li>• Medication management</li> <li>• Decision-making and communication with providers</li> </ul>	<ul style="list-style-type: none"> <li>• Explicit education and didactic discussions</li> <li>• Symptom/seizure monitoring</li> <li>• Proactive coping with stressors training</li> <li>• Medication management and monitoring</li> </ul> <p>Collaborative goal-setting</p>	<ul style="list-style-type: none"> <li>• 5 weekly 2-hour sessions and one 2-hour booster</li> <li>• Eppy app tracking, time not reported</li> </ul> <p>Treatment as usual</p>
<p>McLaughlin, 2011<sup>54</sup></p> <p>Arm 1=CBT</p>	<ul style="list-style-type: none"> <li>• In-person group sessions led by a psychologist<sup>a</sup></li> <li>• Daily seizure diary</li> </ul> <p>Patient targeted</p>	<p>Psychologist</p> <p>Expertise in CBT for epilepsy</p>	<ul style="list-style-type: none"> <li>• Explicit knowledge</li> <li>• Symptom/seizure tracking</li> <li>• Symptoms and triggers identification</li> <li>• Stress management via cognitive restructuring</li> <li>• Information on diet, physical activity, sleep, and substances</li> <li>• Information on utilizing social supports</li> </ul>	<ul style="list-style-type: none"> <li>• Explicit education and didactic discussions</li> <li>• Multicomponent group CBT</li> <li>• Symptom/seizure tracking</li> <li>• Medication management and monitoring</li> </ul> <p>Goal-setting not presented</p>	<p>Six 2-hour weekly sessions</p> <p>Active relaxation</p>



Study	Setting/Delivery Mode Intervention Target	Type of Provider Specialized Training	Intervention Skills	Intervention Techniques Goal-setting	Frequency/ Duration of Contact Comparator
			<ul style="list-style-type: none"> <li>• Medication management</li> </ul>		
<p>McLaughlin, 2011<sup>54</sup></p> <p>Arm 2=Relaxation</p>	<ul style="list-style-type: none"> <li>• In-person group sessions, led by a psychologist<sup>a</sup></li> <li>• Audiotapes of relaxation exercises</li> <li>• Daily seizure diary</li> </ul> <p>Patient targeted</p>	<p>Psychologist</p> <p>No training specified</p>	<ul style="list-style-type: none"> <li>• Explicit knowledge</li> <li>• Symptom/seizure tracking</li> <li>• Relaxation training</li> </ul>	<ul style="list-style-type: none"> <li>• Explicit education and didactic discussions</li> <li>• Relaxation training (reported as not PMR but appears to be PMR)</li> <li>• Symptom/seizure tracking</li> </ul> <p>Goal-setting not presented</p>	<ul style="list-style-type: none"> <li>• Six 1-hour weekly sessions</li> <li>• Audiotapes with no time specified</li> </ul> <p>Active relaxation</p>
<p>Puskarich, 1992<sup>55</sup></p>	<ul style="list-style-type: none"> <li>• In-person sessions (unclear if group or individual)<sup>a</sup></li> <li>• Assigned at-home relaxation practice</li> </ul> <p>Patient targeted</p>	<p>Not reported</p>	<ul style="list-style-type: none"> <li>• Implicit knowledge</li> <li>• Relaxation training via PMR</li> </ul>	<p>PMR</p> <p>Prescribed goal-setting</p>	<ul style="list-style-type: none"> <li>• 6 sessions (first=60 minutes, second and third=50 minutes, fourth=40 minutes, fifth=20 minutes, sixth=15 minutes)</li> <li>• At-home practice 2 times/day for 20 minutes each for 3 weeks</li> </ul> <p>Inactive control: quiet sitting</p>



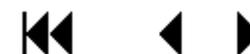
Study	Setting/Delivery Mode Intervention Target	Type of Provider Specialized Training	Intervention Skills	Intervention Techniques Goal-setting	Frequency/ Duration of Contact Comparator
Tan, 1986 <sup>56</sup>	<ul style="list-style-type: none"> <li>In-person group sessions<sup>a</sup></li> <li>Educational materials provided</li> </ul> <p>Patient targeted</p>	"Therapist"; otherwise not reported	<ul style="list-style-type: none"> <li>Explicit knowledge</li> <li>Symptom/seizure tracking</li> <li>Tracking of stress triggers, including events, thoughts, feelings</li> <li>Stress management via stress inoculation and coping skills</li> <li>Relaxation</li> <li>Problem-solving skills, including vocational problems</li> <li>Increasing social skills and assertive communication</li> </ul>	<ul style="list-style-type: none"> <li>Multicomponent CBT</li> <li>Hierarchical exposures (stress inoculation)</li> <li>Symptom/seizure tracking</li> </ul> <p>Collaborative goal-setting</p>	<p>8 weekly 2-hour sessions</p> <p>Active supportive counseling and waitlist control</p>

<sup>a</sup> Primary target of the intervention.

Abbreviations: ARNP=advanced registered nurse practitioner; CBT=cognitive behavioral therapy; MEM=Medication Event Monitoring System; MOSES=Modular Service Package Epilepsy; NP=nurse practitioner; PMR=progressive muscle relaxation; PST=problem-solving therapy; SMILE=Stress Management Intervention for Living with Epilepsy; RN=registered nurse

### NONRANDOMIZED TRIALS

Study	Setting/Delivery Mode Intervention Target	Type of Provider Specialized Training	Intervention Skills	Intervention Techniques Goal-setting	Frequency/ Duration of Contact Comparator
<b><i>Educational Self-management Interventions</i></b>					
Gunter, 2004 <sup>60</sup>	<ul style="list-style-type: none"> <li>Education workbook<sup>a</sup></li> <li>In-person educational class, led by neurology nurse practitioner</li> </ul>	Neurology nurse practitioner	<ul style="list-style-type: none"> <li>Explicit knowledge</li> <li>Symptom/seizure tracking</li> </ul>	<ul style="list-style-type: none"> <li>Explicit education and didactic discussions</li> <li>Symptom/seizure tracking</li> </ul>	Optional monthly 1-hour group education; maximum study duration 3 years and 5 months



Study	Setting/Delivery Mode Intervention Target	Type of Provider Specialized Training	Intervention Skills	Intervention Techniques Goal-setting	Frequency/ Duration of Contact Comparator
	<ul style="list-style-type: none"> <li>· Seizure diary</li> <li>· Patient ID card with condition information</li> <li>· Resource list from Epilepsy Foundation of America</li> </ul> <p>Patient targeted</p>	No training specified		Goal-setting not presented	Inactive treatment as usual at 3 nonrandomly selected control sites
<b>Psychosocial Therapy Self-management Interventions</b>					
Gillham, 1990 <sup>59</sup>  Arm 1=Self-control of seizure treatment only	In-person individual sessions <sup>a</sup>  Patient targeted	Not reported	<ul style="list-style-type: none"> <li>· Explicit knowledge</li> <li>· Symptom/seizure tracking</li> <li>· Relaxation via deep breathing</li> <li>· Provocation avoidance training</li> </ul>	<ul style="list-style-type: none"> <li>· Explicit education and didactic discussions</li> <li>· Relaxation training (deep breathing)</li> </ul> <p>Goal-setting not presented</p>	Initial 2-hour session, followed by two 1-hour sessions for self-control of seizure treatment
Gillham, 1990 <sup>59</sup>  Arms 2 and 3= Psychological treatment and self-control treatment	In-person individual sessions <sup>a</sup>  Patient targeted; relatives involved in identifying psychiatric/social issues, but not clear that they were targeted for treatment	Not reported	<ul style="list-style-type: none"> <li>· Explicit knowledge</li> <li>· Stress management for various comorbid psychological problems (eg, anxiety, mild depression, family issues)</li> <li>· Symptom/seizure tracking</li> <li>· Relaxation via deep breathing</li> <li>· Provocation avoidance training</li> </ul>	<ul style="list-style-type: none"> <li>· Explicit education and didactic discussions</li> <li>· Brief psychological intervention (likely CBT-based, but not explicitly stated)</li> <li>· Relaxation training (deep breathing)</li> </ul> <p>Goal-setting not presented</p>	<ul style="list-style-type: none"> <li>· Initial 2-hour session followed by two 1-hour sessions for psychological problems</li> <li>· Followed by initial 2-hour session followed by two 1-hour sessions for self-control of seizure treatment</li> <li>· Order of treatment targets was balanced across 2 different treatment arms</li> </ul>

<sup>a</sup> Primary target of the intervention.

Abbreviation: CBT=cognitive behavioral therapy



## APPENDIX D. STUDY CHARACTERISTICS TABLE

For full study citations in this appendix, please refer to the report’s main reference list.

Study Country # Enrolled # Arms	Eligibility	Study Acronym Intervention Comparator	Mean Age % Female % Race Marital Status Medication Adherence	Occupational Status Epilepsy Type Time Since Diagnosis Seizure Frequency	Outcomes Reported Primary Outcome Timing	Risk of Bias
Caller, 2016 <sup>46</sup> USA 66 3	<p>Inclusion: Patients age 18-65 with epilepsy (controlled or uncontrolled) and with subjective memory complaints</p> <p>Exclusion: Severe mental impairment or IQ &lt;70, visual impairment that precluded reading or writing, no reliable phone access</p>	<p>No acronym</p> <p>Multidimensional psychoeducational and problem-solving intervention for cognitive difficulties through in-person group orientation and telephonic individual sessions with a trained memory coach. One of 3 arms delivered PST and working memory training on a gaming device</p> <p>Comparators: PST+ cognitive training vs PST only vs treatment as usual</p>	<p>45.8 (SD 9.9)</p> <p>70% female</p> <p>Race: NR</p> <p>Marital status: NR</p>	<p>38% employed</p> <p>Generalized: 9</p> <p>Time since diagnosis: NR</p> <p>59% with seizure in the last month</p>	<p>Depressive symptoms QOL: QOLIE-31</p> <p>Primary outcome: QOLIE-31</p> <p>Timing: 8 weeks</p>	<p>Objective: High</p> <p>Patient-reported: High</p>
Dilorio, 2011 <sup>47</sup> USA 194 2	<p>Inclusion: Adult patients with epilepsy; have taken AEDs for at least 3 months; can read and speak English; have internet access with no prior experience with WebEase</p>	<p>WebEase (Epilepsy Awareness, Support, and Education) study</p> <p>Web program tailored to patient’s stage of change; each module patients asked to assess current status, reflect on current behaviors, decide if change is needed,</p>	<p>40.9 (SD 13.27)</p> <p>74% female</p> <p>84.3% white</p> <p>48% married</p>	<p>50% employed</p> <p>Focal: 60 Generalized: 76 Unknown seizure: 6</p> <p>Time since diagnosis: NR</p>	<p>Distress symptoms QOL: QOLIE-10 Disease knowledge Medication adherence: MAS Self-efficacy: ESES Self-management: ESMS</p>	<p>Objective: NA</p> <p>Patient-reported: High</p>



Study Country # Enrolled # Arms	Eligibility	Study Acronym Intervention Comparator	Mean Age % Female % Race Marital Status Medication Adherence	Occupational Status Epilepsy Type Time Since Diagnosis Seizure Frequency	Outcomes Reported Primary Outcome Timing	Risk of Bias
		and make a goal/action plan to change  Comparator: waitlist control		Mean seizure frequency: 10.0 in past 30 days (SD 29.42)	Primary outcome: NR  Timing: Baseline, 6 weeks, 12 weeks	
Fraser, 2015 <sup>48</sup> USA 92 2	Inclusion: Age ≥18, with epilepsy for ≥6 months and MOCA >21; fluent in English  Exclusion: Active serious mental illness; IQ <70 or known cognitive impairment (MOCA ≤21)	PACES (Program for Active Consumer Engagement in Self-management)  Group-based psychoeducational intervention based specifically on an initial consumer survey with sessions led by an epilepsy professional and a peer with epilepsy; participants were mailed informational material related to their specific goals each week and were given a workbook with written materials  Comparator: treatment as usual	45.2 (SD 12.5)  55% female  Race: 81% white  36% married	41% employed  Focal: 58 Generalized: 44 Unknown seizure: 4  Time since diagnosis: NR  Median seizure frequency: 1 (IQR 1.2)	Anxiety symptoms Depressive symptoms QOL: QOLIE-31 Self-efficacy: ESES Self-management: ESMS  Primary outcome: NR  Timing: Baseline, 8 weeks, 6 months	Objective: NA  Patient-reported: Unclear
Gandy, 2014 <sup>49</sup> Australia 59 2	Inclusion: Adults (18-65) with formal diagnosis of epilepsy confirmed by treating neurologist; at least low average intelligence	CBT (Cognitive Behavior Therapy to Improve Mood in People with Epilepsy)  Included CBT and self-management of epilepsy: psychoeducation, managing triggers, enhancing problem	39.3 (SD 12.57)  64% female  Race: NR  60% married, cohabiting	64% employed  Focal: 35 Generalized: 10  Mean time since diagnosis: 13.3 years (SD 10.95)	Anxiety symptoms Depressive symptoms QOL: QOLIE-31	Objective: NA  Patient-reported: High

Study Country # Enrolled # Arms	Eligibility	Study Acronym Intervention Comparator	Mean Age % Female % Race Marital Status Medication Adherence	Occupational Status Epilepsy Type Time Since Diagnosis Seizure Frequency	Outcomes Reported Primary Outcome Timing	Risk of Bias
	Exclusion: Psychotic disorder; acutely suicidal; severe personality disorder; about to undergo epilepsy surgery	solving, managing medication adherence; delivered by trained psychology doctoral-level interns  Comparator: waitlist	40% divorced, widowed, single	Seizure frequency: NR	Primary outcome: Depressive symptoms  Timing: Pretreatment, 2 months; post-treatment, 3 months	
Gillham, 1990 <sup>59</sup> Europe 59 3	Inclusion: Clinical diagnosis of epilepsy; rated by self and clinician as inadequately controlled; averaged $\geq 2$ seizures per week in the previous 2 months with no trend toward improvement	No acronym  Self-control: identification of seizure semiology, training in identification of seizure symptoms, training in avoidance of provocations, relaxation techniques during prodrome, general relaxation/breathing techniques  Psychological intervention: targeted problems, most commonly phobic avoidance, mild depression, and family relationships  Comparator: Self-control vs self-control followed by psychological intervention vs psychological intervention followed by self-control	31.7 (SD 12.1)  58% female  Race: NR  41% married	Employment: NR  Focal: 26 Generalized: 29 Unknown seizure: 4  Mean time since diagnosis: 17.9 years (SD 11.7)  Seizure frequency: NR	Anxiety symptoms Depressive symptoms Seizure rate  Primary outcome: Seizure rate  Timing: Baseline, 42 weeks	Objective: NA  Patient-reported: High

Study Country # Enrolled # Arms	Eligibility	Study Acronym Intervention Comparator	Mean Age % Female % Race Marital Status Medication Adherence	Occupational Status Epilepsy Type Time Since Diagnosis Seizure Frequency	Outcomes Reported Primary Outcome Timing	Risk of Bias
Gunter, 2004 <sup>60</sup> USA 747 2	<p>Inclusion: Electronic medical record identification of potential candidates, followed by physician verification of presence of epilepsy</p> <p>Exclusion: Those identified as "do not contact" by primary care physicians (presumed these were individuals identified as not having epilepsy)</p>	<p>Seizure Disorder Episodes of Care (no acronym)</p> <p>The intervention consisted of both physician resources and direct-to-patient resources; patient resources included an education workbook, a monthly hour-long seizure education class led by a neurology nurse practitioner, and a seizure diary</p> <p>Comparator: treatment as usual</p>	<p>54 (SD NR)</p> <p>% Female NR</p> <p>Race: 68.4% White</p> <p>Marital status: NR</p>	<p>50% employed</p> <p>Epilepsy type: NR</p> <p>Time since diagnosis: NR</p> <p>Seizure frequency: NR</p>	<p>Seizure rate/frequency Seizure severity QOL: QOLIE-31*</p> <p>Primary outcome: QOLIE-31</p> <p>Timing: Pre-intervention and 12 months post-implementation</p>	<p>Objective: NA</p> <p>Patient-reported: High</p>
Haut, 2018 <sup>50</sup> USA 67 2	<p>Inclusion: Age ≥18, medication resistant (≥4 seizures during 56-day baseline period), stable AED regimen; awareness of triggers, premonitory features, and/or ability to self-predict seizures, focal epilepsy, able to maintain e-diary</p> <p>Exclusion: suicide attempt within 2 years or suicidal ideation, status epilepticus w/in 6 months; stress reduction intervention</p>	<p>No acronym</p> <p>Intervention was primarily stress management practice through PMR, with additional self-monitoring component based on seizure activity; patients received an in-person training session with a psychologist for PMR, and a follow-up training 6 weeks later</p> <p>Comparator: Active focused-attention</p>	<p>37.2 (SD 24)</p> <p>62.5% female</p> <p>Race: NR</p> <p>Marital status: NR</p>	<p>Employment: NR</p> <p>Focal: 64</p> <p>Mean time since diagnosis: 26 years (SD 13.7)</p> <p>Mean seizure frequency: 11.42/month (SD 15.83)</p>	<p>Anxiety symptoms Depressive symptoms Distress symptoms Seizure frequency</p> <p>Primary outcome: Seizure frequency</p> <p>Timing: daily for 12 weeks</p>	<p>Objective: NA</p> <p>Patient-reported: Low</p>



Study Country # Enrolled # Arms	Eligibility	Study Acronym Intervention Comparator	Mean Age % Female % Race Marital Status Medication Adherence	Occupational Status Epilepsy Type Time Since Diagnosis Seizure Frequency	Outcomes Reported Primary Outcome Timing	Risk of Bias
	w/in 3 months or failed prior stress reduction					
Helgeson, 1990 <sup>51</sup> USA 100 2	Inclusion: Epilepsy diagnosis and receiving AEDs  Exclusion: Mentally retarded, demented, or psychotic patients	Sepulveda Epilepsy Education program (SEE)  Psychoeducational treatment program providing education and psychosocial therapy through cognitive-behavioral methods to patients and their families; presented education on medical and compliance issues with epilepsy, and modeled skills for identifying and coping with psychological, social, family, and work-related problems of epilepsy  Comparator: waitlist	37.3 (SD 11.85)  74% Female  Race: NR  Marital status: NR  Med adherence: NR	Employment: NR  Focal: 11 Generalized: 12  Mean time since diagnosis: 16.5 years (SD 10.95)  Mean seizure frequency: 2.3/month (SD 4.35)	Anxiety symptoms Depressive symptoms Seizure rate/frequency Social functioning: Washington Psychosocial Seizure Inventory Disease knowledge Self-efficacy: Sherer self-efficacy scale  Primary outcome: NR  Timing: Baseline and 4 months	Objective: High  Patient-reported: High
Leenen, 2018 <sup>52</sup> Europe 103 2	Inclusion: Adult patients with epilepsy using AED; understood Dutch; could participate in sessions/e-health devices  Exclusion: Unwilling or unable to participate in group sessions or felt to be unable to comprehend the topics discussed in sessions	ZMILE  Group sessions led by nurse practitioners aimed at improving knowledge, recognition, self-monitoring, and proactive coping  Comparator: treatment as usual	41.7 (SD 14.7)  51% female  Race: NR  51% married	34.3% employed  Epilepsy type: NR  Mean time since diagnosis: 20.1 years (SD 15.01)  Mean seizure frequency: 5.1/4 weeks (SD 11.15)	Anxiety symptoms Depressive symptoms Seizure rate/frequency Seizure severity QOL: QOLIE-31 Medication toxicity Medication adherence: MARS Self-efficacy: ESES	Objective: NA  Patient-reported: Low



Study Country # Enrolled # Arms	Eligibility	Study Acronym Intervention Comparator	Mean Age % Female % Race Marital Status Medication Adherence	Occupational Status Epilepsy Type Time Since Diagnosis Seizure Frequency	Outcomes Reported Primary Outcome Timing	Risk of Bias
					Primary outcome: ESES  Timing: Baseline, 3 months, 6 months	
May, 2002 <sup>53</sup> Europe 383 2	Inclusion: Patients with epilepsy age ≥16 who agreed to participate  Exclusion: Mental retardation, acute psychiatric illness; non- epileptic seizures only	MOSES (Modular Service Package Epilepsy)  Intervention involved discussion of factors: education about epilepsy; ways to emotionally cope with epilepsy, monitor symptoms and seizures, plan for or actively cope with pre-seizure symptoms/auras, and cooperating with clinicians and taking medications as prescribed  Comparator: waitlist	38.0 (SD 13.59)  57% female  Race: NR  Marital status: NR	41% employed  Focal: 152 Generalized: 43 Unknown seizure: 44  Median time since diagnosis: Arm 1: 13.5 years (IQR 4.7 to 26.2) Arm 2: 18.2 years (IQR 8.5 to 29.6)  76% with at least 1 seizure in the past 6 months	Depressive symptoms Seizure rate/frequency Social functioning: Restrictions in daily living QOL: SF36 Disease knowledge Self-management: Coping with Epilepsy  Primary outcome: Restrictions in daily living, SF36, disease knowledge, Coping with Epilepsy  Timing: Baseline, 6 months post-course completion	Objective: NA  Patient- reported: High
McLaughlin, 2011 <sup>54</sup> Australia 37 2	Inclusion: English- speaking adults, age ≥60 with confirmed diagnosis of epilepsy, who were able to attend weekly group sessions; must have	No acronym  A manualized, in-person, group CBT intervention delivered by a psychologist; self-management elements include psychoeducation,	67.5 (SD 7.37)  51% female  Race: NR  Marital status: NR	Employment: NR  Focal: 20 Generalized: 17	Depressive symptoms Seizure rate/frequency Social functioning: Washington	Objective: NA  Patient- reported: Unclear



Study Country # Enrolled # Arms	Eligibility	Study Acronym Intervention Comparator	Mean Age % Female % Race Marital Status Medication Adherence	Occupational Status Epilepsy Type Time Since Diagnosis Seizure Frequency	Outcomes Reported Primary Outcome Timing	Risk of Bias
	MMSE ≥24, and able to provide information on physical and medical status	seizure diaries, CBT to reduce triggers, physical and emotional wellness (including medication management), seizure management  Comparator: active relaxation		Mean time since diagnosis: 27.2 years (SD 27.22)  Seizure frequency: NR	Psychosocial Seizure Inventory  Primary Outcome: NR  Timing: 6 weeks, 3 months	
Puskarich, 1992 <sup>55</sup> USA 53 2	Inclusion: Epilepsy diagnosis, 6 seizures during a run-in 8 week period with awareness of every seizure by self or witness, normal intellectual function, English-speaking	No acronym  Progressive muscle relaxation training; Subjects were encouraged to practice the relaxation techniques at home twice a day for 20 min  Comparator: quiet sitting	39.4 (SD NR)  67% female  Race: 62% white  Marital status: NR	Employment: NR  Focal: 21 Generalized: 3  Mean time since diagnosis 22 years (SD NR)  Seizure frequency: NR	Seizure rate  Primary outcome: Seizure rate  Timing: 8 weeks	Objective: NA  Patient-reported: High

Study Country # Enrolled # Arms	Eligibility	Study Acronym Intervention Comparator	Mean Age % Female % Race Marital Status Medication Adherence	Occupational Status Epilepsy Type Time Since Diagnosis Seizure Frequency	Outcomes Reported Primary Outcome Timing	Risk of Bias
Ridsdale, 2018 <sup>57</sup> Europe 404 2	<p>Inclusion: Age ≥16 with epilepsy ≥1 year, diagnosed by specialist, on AED, ≥2 seizures in past year, understand English; able to attend 2-day course</p> <p>Exclusion: Psychogenic seizures; substance misuse; serious psych illness; terminal illness</p>	<p>SMILE-UK (Self-management education for adults with poorly controlled epilepsy)</p> <p>Intervention based on MOSES. 9 module group education; focused on patients with epilepsy, caregivers also invited</p> <p>Comparator: treatment as usual</p>	<p>41.7 (SD 14.1)</p> <p>54.2% female</p> <p>Race: 75.2% White</p> <p>38.1% married</p>	<p>41.8% employed</p> <p>Epilepsy type: NR</p> <p>Median time since diagnosis: 18 (IQR 8 to 32)</p> <p>Median seizure frequency: 34/last 12 months (IQR 18 to 63)</p>	<p>Anxiety symptoms Depressive symptoms Seizure rate/frequency QOL: QOLIE-31 Medication toxicity Medication adherence: ESMS Self-efficacy: Self-Mastery and Control scale</p> <p>Primary outcome: QOLIE-31</p> <p>Timing: Baseline, 6 months, 12 months</p>	<p>Objective: NA</p> <p>Patient-reported: Low</p>
Sajatovic, 2018 <sup>58</sup> USA 120 2	<p>Inclusion: Self-reported epilepsy, age ≥18, ≥1 negative health event (seizure, accident or traumatic injury, self-harm attempt, ED visit or hospitalization) in past 6 months</p> <p>Exclusion: Immediate risk of self-harm; dementia; pregnancy; unable to read/understand English</p>	<p>SMART (Self-management for people with epilepsy)</p> <p>Group-based, in-person, 60- to 90-minute session delivered collaboratively by a nurse educator-peer educator dyad. Then, 7 group format sessions delivered ~weekly via the internet on computer tablets using posters/graphics and emphasizing interactive discussion. Following the group sessions, 6 telephone maintenance sessions</p>	<p>41.3 (SD 11.8)</p> <p>68.1% female</p> <p>Race: 30.1% White</p> <p>31.7% married</p>	<p>25.8% employed</p> <p>Focal: 4 Generalized: 85</p> <p>Mean time since diagnosis: 20.6 (SD 15.2)</p> <p>Seizure frequency: 2.2/30 days (SD 4.9)</p>	<p>Depressive symptoms Seizure rate/frequency Seizure severity QOL: QOLIE-10 Negative health events Self-efficacy: ESES Self-management: ESMS ED visit for epilepsy Hospitalization f(any cause)</p>	<p>Objective: Unclear</p> <p>Patient-reported: Unclear</p>



Study Country # Enrolled # Arms	Eligibility	Study Acronym Intervention Comparator	Mean Age % Female % Race Marital Status Medication Adherence	Occupational Status Epilepsy Type Time Since Diagnosis Seizure Frequency	Outcomes Reported Primary Outcome Timing	Risk of Bias
		<p>(approximately every 2 weeks) with the peer educator and the nurse educator alternating calls.</p> <p>Comparator: Waitlist control group, allowed to continue treatment as usual with providers, and received intervention after 6-month follow-up with treatment group.</p>			<p>Primary outcome: change in total negative health events</p> <p>Timing: 24 weeks</p>	
<p>Tan, 1986<sup>56</sup> Canada 30 3</p>	<p>Inclusion: Adult epilepsy patients with significant psychosocial problems and inadequate seizure control (as judged by neurologist)</p> <p>Exclusion: Mentally retarded; psychotic</p>	<p>No acronym</p> <p>CBT based intervention that included education via explicit readings; symptom monitoring for seizures, problem solving of anticipated seizure-related issues in life; stress management; increasing other healthy activities</p> <p>Comparators: CBT vs supportive counseling vs waitlist</p>	<p>33.4 (SD 11.1)</p> <p>63% female</p> <p>Race: NR</p> <p>Marital status: NR</p>	<p>Employment: NR</p> <p>Focal: 22 Generalized: 5</p> <p>Mean time since diagnosis: 15.5 (SD 8.9)</p> <p>Seizure frequency: NR</p>	<p>Depressive symptoms Seizure rate/frequency Social functioning: Washington Psychosocial Seizure Inventory Medication adherence: "Compliance with Taking Anticonvulsant Meds" Likert scale 1-5</p> <p>Primary outcome: NR</p> <p>Timing: pre-intervention, post-</p>	<p>Objective: NA</p> <p>Patient-reported: High</p>

Study Country # Enrolled # Arms	Eligibility	Study Acronym Intervention Comparator	Mean Age % Female % Race Marital Status Medication Adherence	Occupational Status Epilepsy Type Time Since Diagnosis Seizure Frequency	Outcomes Reported Primary Outcome Timing	Risk of Bias
					intervention, 4 months	

Abbreviations: AED=antiepileptic drug; CBT=cognitive behavioral therapy; ED=emergency department; ESES= Epilepsy Self-Efficacy Scale; ESMS=Epilepsy Self-Management Scale; IQR=interquartile range; MMSE=Mini-Mental State Examination; MOCA=Montreal Cognitive Assessment; MOSES=Modular Service Package Epilepsy; NA=not applicable; NR=not reported; SD=standard deviation

## APPENDIX E. EXCLUDED STUDIES

Study	Not full publication	Not eligible country	Not population of interest	Not eligible setting	Not eligible intervention	Not eligible design	Not eligible outcome
Aliasgharpour, 2013 <sup>1</sup>		X					
Caller, 2016 <sup>2</sup>	X						
Cervenka, 2012 <sup>3</sup>					X		
Chappell, 1999 <sup>4</sup>					X		
Clark, 2001 <sup>5</sup>			X				
Cole, 2015 <sup>6</sup>					X		
Collard, 2017 <sup>7</sup>						X	
Crooks, 2017 <sup>8</sup>			X				
Davis, 2004 <sup>9</sup>				X			
De Barros, 2018 <sup>10</sup>			X				
Dilorio, 2011 <sup>11</sup>	X						
Dilorio, 2009 <sup>12</sup>						X	
Dilorio, 2009 <sup>13</sup>						X	
Dilorio, 1992 <sup>14</sup>					X		
Elsas, 2011 <sup>15</sup>						X	
Endermann, 2015 <sup>16</sup>			X				
Engelberts, 2002 <sup>17</sup>					X		
Groenewegen, 2014 <sup>18</sup>				X			
Helde, 2003 <sup>19</sup>					X		
Helde, 2005 <sup>20</sup>					X		
Helmstaedter, 2008 <sup>21</sup>					X		
Hixson, 2015 <sup>22</sup>						X	
Hixson, 2015 <sup>23</sup>				X			
Kobau, 2003 <sup>24</sup>				X			
Kotchoubey, 2001 <sup>25</sup>						X	
Krakow, 1999 <sup>26</sup>				X			
Kralj-Hans, 2014 <sup>27</sup>					X		
Kumar, 2018 <sup>28</sup>					X		

<b>Study</b>	<b>Not full publication</b>	<b>Not eligible country</b>	<b>Not population of interest</b>	<b>Not eligible setting</b>	<b>Not eligible intervention</b>	<b>Not eligible design</b>	<b>Not eligible outcome</b>
Lai, 2018 <sup>29</sup>		X					
Leenen, 2014 <sup>30</sup>				X			
Losada-Camacho, 2014 <sup>31</sup>		X					
Lua, 2013 <sup>32</sup>		X					
Lundgren, 2008 <sup>33</sup>		X					
Lundgren, 2006 <sup>34</sup>		X					
Martinovic, 2001 <sup>35</sup>		X					
McAuley, 2001 <sup>36</sup>					X		
Mejdahl, 2017 <sup>37</sup>					X		
Minshall, 2008 <sup>38</sup>			X				
Mody, 2016 <sup>39</sup>					X		
Myers, 2017 <sup>40</sup>				X			
Newman, 2016 <sup>41</sup>						X	
Noble, 2014 <sup>42</sup>						X	
Ogata, 2000 <sup>43</sup>					X		
Pakpour, 2015 <sup>44</sup>		X					
Peterson, 1984 <sup>45</sup>					X		
Peterson, 1982 <sup>46</sup>					X		
Pfeifer, 2005 <sup>47</sup>					X		
Pramuka, 2007 <sup>48</sup>						X	
Privitera, 2014 <sup>49</sup>					X		
Radford, 2011 <sup>50</sup>					X		
Rajesh, 2006 <sup>51</sup>		X					
Ridsdale, 2013 <sup>52</sup>						X	
Ridsdale, 2002 <sup>53</sup>			X				
Ridsdale, 2000 <sup>54</sup>					X		
Ridsdale, 1999 <sup>55</sup>					X		
Ridsdale, 1996 <sup>56</sup>				X			
Rockstroh, 1993 <sup>57</sup>					X		
Roth, 1994 <sup>58</sup>					X		

<b>Study</b>	<b>Not full publication</b>	<b>Not eligible country</b>	<b>Not population of interest</b>	<b>Not eligible setting</b>	<b>Not eligible intervention</b>	<b>Not eligible design</b>	<b>Not eligible outcome</b>
Sahoo, 2016 <sup>59</sup>					X		
Sajatovic, 2017 <sup>60</sup>						X	
Saramma, 2014 <sup>61</sup>		X					
Sathyaprabha, 2008 <sup>62</sup>		X					
Sawangchareon, 2013 <sup>63</sup>		X					
Schougaard, 2017 <sup>64</sup>						X	
Schroder, 2014 <sup>65</sup>					X		
Schröder, 2014 <sup>66</sup>					X		
Shaw, 2010 <sup>67</sup>	X						
Shaw, 2007 <sup>68</sup>						X	
Shegog, 2017 <sup>69</sup>						X	
Smith, 2017 <sup>70</sup>						X	
Smithson, 2013 <sup>71</sup>					X		
Spector, 1999 <sup>72</sup>						X	
Staniszewska, 2017 <sup>73</sup>					X		
Strehl, 2014 <sup>74</sup>						X	
Sung, 2017 <sup>75</sup>			X				
Tang, 2015 <sup>76</sup>		X					
Tatum, 2008 <sup>77</sup>					X		
Thompson, 2010 <sup>78</sup>			X				
Trostle, 1983 <sup>79</sup>					X		
CDC Epilepsy Program <sup>80</sup>					X		
Walker, 2010 <sup>81</sup>			X				
Walker, 2009 <sup>82</sup>						X	
Wood, 2017 <sup>83</sup>						X	
Yardi, 2001 <sup>84</sup>						X	

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## APPENDIX F. GLOSSARY

For full study citations in this appendix, please refer to the report's main reference list.

Term	Definition															
<b>Certainty of evidence (COE)</b>	<p>We assessed COE using the Grading of Recommendations Assessment, Development and Evaluation (GRADE) approach<sup>37</sup> for 4 domains:</p> <table border="1" data-bbox="513 426 1411 1089"> <thead> <tr> <th data-bbox="513 426 721 468"><i>Domain</i></th> <th data-bbox="721 426 943 468"><i>Rating</i></th> <th data-bbox="943 426 1411 468"><i>How Assessed</i></th> </tr> </thead> <tbody> <tr> <td data-bbox="513 468 721 564">Risk of bias</td> <td data-bbox="721 468 943 564">Low Unclear High</td> <td data-bbox="943 468 1411 564">Assessed primarily through study design and aggregate study quality</td> </tr> <tr> <td data-bbox="513 564 721 720">Consistency</td> <td data-bbox="721 564 943 720">Consistent Inconsistent Unknown/NA</td> <td data-bbox="943 564 1411 720">Assessed primarily through whether effect sizes are generally on the same side of “no effect,” the overall range of effect sizes, and statistical measures of heterogeneity</td> </tr> <tr> <td data-bbox="513 720 721 875">Directness</td> <td data-bbox="721 720 943 875">Direct Indirect</td> <td data-bbox="943 720 1411 875">Assessed by whether the evidence involves direct comparisons or indirect comparisons through use of surrogate outcomes or use of separate bodies of evidence</td> </tr> <tr> <td data-bbox="513 875 721 1089">Precision</td> <td data-bbox="721 875 943 1089">Precise Imprecise</td> <td data-bbox="943 875 1411 1089">Based primarily on the size of the confidence intervals of effect estimates, the optimal information size and considerations of whether the confidence interval crossed the clinical decision threshold for using a therapy</td> </tr> </tbody> </table> <p>Summary COE ratings for a body of evidence:</p> <ul data-bbox="500 1171 1437 1570" style="list-style-type: none"> <li>• High—High confidence that the true effect lies close to that of the estimate of the effect.</li> <li>• Moderate—Moderate confidence in the effect estimate. The true effect is likely to be close to the estimate of the effect, but there is a possibility that it is substantially different.</li> <li>• Low—Limited confidence in the effect estimate. The true effect may be substantially different from the estimate of the effect.</li> <li>• Very low—Very little confidence in the effect estimate. The true effect is likely to be substantially different from the estimate of effect.</li> <li>• Insufficient—Impossible or imprudent to rate. In these situations, a rating of insufficient is assigned.</li> </ul>	<i>Domain</i>	<i>Rating</i>	<i>How Assessed</i>	Risk of bias	Low Unclear High	Assessed primarily through study design and aggregate study quality	Consistency	Consistent Inconsistent Unknown/NA	Assessed primarily through whether effect sizes are generally on the same side of “no effect,” the overall range of effect sizes, and statistical measures of heterogeneity	Directness	Direct Indirect	Assessed by whether the evidence involves direct comparisons or indirect comparisons through use of surrogate outcomes or use of separate bodies of evidence	Precision	Precise Imprecise	Based primarily on the size of the confidence intervals of effect estimates, the optimal information size and considerations of whether the confidence interval crossed the clinical decision threshold for using a therapy
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<b>Cognitive behavioral therapy (CBT)</b>	Psychological treatment that addresses unhelpful ways of thinking and unhelpful behavior.															
<b>Hierarchical stress inoculation</b>	Technique used to systematically desensitize individuals to anxiety-producing situations through conceptualizing and coping with increasing stress.															
<b>Objective outcomes (ie, non-patient-reported outcomes)</b>	Measures that are not subject to a large degree of individual interpretation and are likely to be reliably measured across patients in a study, by different health care providers, and over time.															
<b>Patient-reported outcomes</b>	Outcomes that are directly reported by the patient without interpretation of the patient's response by a clinician or anyone else and pertains to the patient's															

Term	Definition
	health, quality of life, or functional status associated with health care or treatment.
<b>Problem solving therapy (PST)</b>	Psychological treatment that teaches management of negative effects of stressful life events. Goals of PST include identifying types of stressors that trigger emotion and better understanding and management of negative emotions.
<b>Progressive muscle relaxation (PMR)</b>	A relaxation technique that involves tensing and relaxing muscle groups to reduce body tension.
<b>Risk of bias (ROB)</b>	<p>An assessment of study quality. We used the following guidance in this report.</p> <p>(1) For KQ 1 and KQ 2, we used the Cochrane EPOC ROB tool, which is applicable to randomized and nonrandomized studies<sup>28</sup>:</p> <ul style="list-style-type: none"> <li>• Randomization and allocation concealment</li> <li>• Comparability of groups at baseline</li> <li>• Blinded outcomes assessment</li> <li>• Completeness of follow-up and differential loss to follow-up</li> <li>• Whether incomplete data were addressed appropriately</li> <li>• Protection against contamination</li> <li>• Selective outcomes reporting</li> </ul> <p>Summary ROB ratings for a study:</p> <ul style="list-style-type: none"> <li>• Low ROB—Bias, if present, is unlikely to alter the results seriously</li> <li>• Unclear ROB—Bias that raises some doubts about the results</li> <li>• High ROB—Bias that may alter the results seriously</li> </ul> <p>(2) We used the Critical Appraisal Skills Programme (CASP) criteria to evaluate the ROB for qualitative study designs<sup>30</sup>:</p> <ul style="list-style-type: none"> <li>• Clear statement of aims</li> <li>• Appropriate qualitative methodology</li> <li>• Appropriate research design</li> <li>• Appropriate recruitment</li> <li>• Appropriate data collection</li> <li>• Consideration of ethical issues</li> <li>• Sufficiently rigorous data analysis</li> <li>• Clear statement of findings</li> <li>• Valuable of the research</li> </ul> <p>(3) We used the Mixed Methods Appraisal Tool (MMAT) 5 items specific to descriptive studies to evaluate the ROB for quantitative descriptive designs<sup>31</sup>:</p> <ul style="list-style-type: none"> <li>• Relevant sampling strategy</li> <li>• Representative sample</li> <li>• Appropriate measures</li> <li>• Risk of non-response bias</li> <li>• Appropriate statistical analysis</li> </ul> <p>We also used the MMAT 5 items for mixed methods to evaluate the ROB for mixed-methods studies<sup>31</sup>:</p> <ul style="list-style-type: none"> <li>• Adequate rationale for using a mixed-methods design</li> <li>• Effective integration of the different components</li> <li>• Adequate interpretation of the integration of qualitative and quantitative comments</li> </ul>

<b>Term</b>	<b>Definition</b>
	<ul style="list-style-type: none"><li>· Adequately addressed inconsistencies between quantitative and qualitative results</li><li>· Adherence of the different components to the quality criteria of each method</li></ul> No summary ROB was possible for the CASP or MMAT.
<b>Standardized mean difference (SMD)</b>	The difference in outcomes between the intervention and comparator, divided by the pooled standard deviation.