Table of Randomised Controlled Trials (RCTs) on peer support outcomes, effectiveness and cost-effectiveness (17)

(Note full citation details in References of literature review)

Article	Target Population	Theoretical model for peer support	Peer supporters	Peer supporter training or supervision	Intervention	Peer matching or tailoring of intervention	Control	Outcomes	Adverse experiences reported?
DeMello, Pinto, Mtchell, et al 2018.	Breast Cancer	Social cognitive	Volunteers (*n* = 18) in with lived experience of breast cancer diagnosis and treatment and 1 year of peer support volunteering experience recruited to support to participants.	Yes 8 hours of training including role play on the intervention protocol and theory, empathy and reflective listening, safety monitoring, and health regulatory requirements	*n* = unreported Road to Recovery plus peer-supported coaching for increased physical activity: 12-week telephone-based counselling (motivational interviewing, problem solving).	Yes Peer supporters matched to participants based on availability and similarity of cancer treatments.	*n* = unreported Road to Recovery booklet mailed to participants. Peer supporters called weekly to complete symptom checklists	Significant gains of RTR with peer support for on physical activity. Improved mood, physical function, and mental health functioning.	No
Gillespie, O'Shea, O'Dowd, & Smith 2012.	Type-2 Diabetes	Not stated	Not described (Described in previously published research)	Yes Not described (Described in previously published research)	*n* = 192 Group peer support plus standardised diabetes care: Nine group meetings held in GP offices. Content and scope of peer support provided in group meetings poorly described.	No	*n* = 203 Standardised diabetes care.	No significant effect of peer support on Quality Adjusted Life Years High probability of cost effectiveness (87-92%) in modelling of costs over a 40-year post-trial period of care.	No
Horvath , Rivet Amico , Erickson et al 2018	Protocol for RCT but includes description of previous pilot research	Uses information-motivation-behavioural skills model based in social psychology	RCT will have men who have sex with men who are HIV positive	In pilot all received instructions on use of website, messaging board, SMS	Use of website and tools modified following responses to the pilot project	200 men who have sex with men who are HIV positive.	200 men who have sex with men who are HIV positive.	Outcome measures in RCT will be based on clinical results and ART adherence; social interaction through messaging and time spent on site	Not yet
Houlihan, Brody, Everhart-Skeels, Pernigotti, et al. 2017.	Chronic Spinal Cord Injury	Social cognitive	Peer health coaches (*n* = 2) ≥5years since spinal cord injury recruited to provide support to participants	Yes Training in phone-based motivational interviewing	*n* = 42 My Care, My Call (MCMC) booklet plus 6 months of phone coaching	Yes Support strategies optimised to match participant baseline level of activation	*n* = 42 My Care, My Call resource booklet	Significantly greater increases in patient activation at 6 months, increased life satisfaction, decreased social/role limitation.	No

								Greater change observed for intervention participants with higher baseline social support.	

Article	Target Population	Theoretical model for peer support	Peer supporters	Peer supporter training or supervision	Intervention	Peer matching or tailoring of intervention	Control	Outcomes	Adverse experiences reported?
Johnson, Lamb, Osborne et al, 2018	Post-discharge following acute mental health crisis support	Not stated	Peer supporters with experience with mental illness recruited to support participants	Yes Training in workbook completion, listening skills, cultural awareness, self-disclosure and confidentiality, plus fortnightly group supervision	n = 221 Recovery self-management workbook and up to 10 sessions with a peer supporter plus treatment as usual	Yes Peer support worker able to tailor delivery of unstructured support in addition to support for recovery self-management	n = 220 Recovery self-management workbook plus treatment as usual	Significantly reduced rate of readmission to acute care in the year post-crisis, and significantly higher satisfaction with mental health care received at 4 month follow up. No significant difference for days in acute care. No significant differences in outcomes at 18 months.	No (adverse events not attributed to peer intervention)
Ju, Shi, Yao et al, 2018	Type II Diabetes	Social learning Social support	Peer leaders (n = 24) recuited via interview across 8 community health centres with 1-2 peer leaders and 10-15 participants per peer support group	No	n = 200 Peer leaders who assisted with diabetes self-management skills, setting and achieving goals, and problem solving. Communication via phone, email, home-visits, and incidental contact via informal community activities	Yes	n = 200 Usual diabetes education (2 hours/month)	Significant decreases in fasting plasma glucose and diabetes-related distress including emotional burden, physician-related distress and regimen-related distress. No change in interpersonal distress, HbA1c or postprandial blood glucose.	No
Kaplan, Salzer, Solomon et al 2011	Individuals with psychiatric disabilities	Not stated	Participant-led peer support	No	n = 100 bulletin board n = 101 listserv Participants allocated to an unstructured and unmoderated	No	n = 100 Wailist	No significant overall group difference in subjective experience of recovery from mental illness, quality of life, social support, or depression/anxiety	Maybe At 12 months, more positive experiences of peer support showed higher distress. Those

									symptoms	with no/low peer support engagement reported lower distress (direction of causality not determined).

Article	Target Population	Theoretical model for peer support	Peer supporters	Peer supporter training or supervision	Intervention	Peer matching or tailoring of intervention	Control	Outcomes	Adverse experiences
Kaplan, Solomon, Salzer 2014	Mothers with a serious mental illness	Helper-Therapy Social support	Participant-led peer support plus 1 non-participant peer supporter involved in listserv moderation and responses to participant questions	Yes Training provided to clinical and non-participant peer support worker (*n* = 2) for listserv moderation and responses	*n* = 31 Online parenting education and peer support listserv plus usual care	No	*n* = 29 Review of online healthy lifestyle educational fact sheets plus usual care	Marginally significant gains in parenting and coping skills. No significant improvement in perceived parenting efficacy or social support.	No
Leone, Allicock, Pignone et al 2016	Colorectal cancer screening and physical activity among older African Americans	Social cognitive Social support	One peer counsellor aged 50+ recruited for every 3-4 participants	Yes DVD and manualised in-person delivery, including social support, motivational interviewing, and confidentiality	*n* = 374 1-2 monthly newsletters, church-organised activities, plus up to 3 peer counselling phone calls	Yes Newsletters content tailored for all participants. Recruitment of peer supporters from the same church allowed for extended (informal) support opportunities.	*n* = 338 Newsletter and church-organised activities	No significant change in colorectal screening rates or physical activity	No
McCusker, Lambert, Cole 2016.	Major Depressive Disorder	Not stated	"Lay coaches" (*n* = unreported) recruited to support participants in the use a depression self-care toolkit.	Yes Not described.	*n* = 115 Depression self-care toolkit plus peer supporter phone calls (~10mins) weekly for 3 months, then monthly for 3 months.	Yes Scripted interventions matched to participants reported problems	*n* = 100 Provided depression self-care toolkit with no additional phone support.	Peer coaching not associated with significantly greater gains in activation or self-efficacy compared to the control group; both groups showed significant gains	No
Morris, Schueller, & Picard 2015	Depressive symptoms	Not stated	Participant-led peer support via the *Panoply* platform users with supplementary crowd-sourced support via Amazon.	Yes Training on-demand via 3-5 minute modules provided to peer and crowd-sourced respondents to *Panoply* user posts. Training included modules on empathic	*n* = 135 Panoply, an online CBT-oriented platform for dynamic and interactive sharing of recent experiences and peer-identification	No	*n* = 130 Online expressive writing platform with no capacity for peer interaction	No significant differences between groups for change in depressive symptoms and perseverative thinking.

Peer-support associated with change in cognitive | Yes One participant barred from posting ongoing content after composing 'several troubling and off-topic' posts |

				responding, identification of cognitive distortions, cognitive reframing, and vetting of inappropriate responses	and response to provide empathic responses and identify and reframe depressogenic cognitive distortions				reappraisal, and more visits to the online platform despite fewer posts	
Article	**Target Population**	**Theoretical model for peer support**	**Peer supporters**	**Peer supporter training or supervision**	**Intervention**	**Peer matching or tailoring of intervention**	**Control**	**Outcomes**	**Adverse experiences reported?**	
Moskowitz, Thom, Hessler et al 2013	People with T2D with poorly controlled HbA1C	Aim to assess whether 'peer coaching' is more effective in some groups of patients than others.	Peers recommended as suitable for training by the primary care professional.	Received training	Peer coaching delivered	Matching at baseline: patients divided into low self-management; high self-management; low and high medication adherence.	Usual care	"Peer health coaching had a larger effect on lowering A1c in patients with low levels of medication adherence and self-management support than in patients with higher levels. Peer health coaching interventions may be most effective if targeted to high-risk patients with diabetes with poor glycemic control and with poor self-management and medication adherence."	No.	
Niela-Vilen, Axelin, Melender et al 2016.	Breastfeeding mothers of pre-term infants	Not stated	Volunteers (*n* = 3) with previous experience in breastfeeding preterm infants recruited to support participants plus peer support provided between group members	No	*n* = 60 Routine NICU-based breastfeeding support plus participation in a closed group on social media (facebook)	No	*n* = 64 Routine NICU-based breastfeeding support	No significant effect of peer support on breastfeeding, breast feeding attitudes or breast milk expression At 6 months, 73% reported greater usefulness of peer support over midwife advice, 86% reported peer support influenced their breastfeeding.	Yes A minority reported that group participation resulted in increased breast-feeding related guilt	
Thom, Ghorab, Hessler et al 2013	People with T2D with HbA1c over 8.0	Not stated	23 patients from 6 clinics trained as peer coaches	36 hour training session over 8 wks in English or Spanish; given a written and oral exam to qualify at	Low income people with high HbA1c 148 received health coaching either by telephone or in-	All low income, all HbA1c over 8.0; other clinical measures also used.	Usual care	Both control and intervention registered lower HbA1c but intervention group was significantly greater.	Not reported	

				end of training.	person or both.			Recommendation that PS be taken up outside of research. That peer supporters be trained and supervised and expenses reimbursed.	
Visser, van Laarhoven, Woldringh et al 2016	BRCA1/2 gene carriers receiving breast monitoring	Not stated	Participant-led peer support provided by participants allocated to the same group medical consultation (n ≤8 per group) with group discussion facilitated by a social worker	No	n = 63 Participation in a group medical consultation in which group members can share questions and responses to shared BRCA1/2 related concerns	No	n = 59 Individual medical consultation	No significant difference in psychological distress or empowerment with both groups showing improvement. No significant difference in cancer-related worry, quality of life, or change in frequency of breast self-esamination.	Decreased satisfaction with medical care associated with randomisation to group consultation
Westerhof, Lamers, Postel et al 2017	Depressive symptoms in mid-life to older adults	Not stated	Participant-led peer support provided by participants within the same group (n ≤4 per group)	Yes Peer group members provided with instructions on providing supportive feedback Non-peer clinical moderation of posted content	n = 20 1. "The Stories We Live By" modularised life review narrative therapy plus online peer support n = 19 2. "The Stories We Live By" modularised life review narrative therapy plus online counselling support	No	n = 19 Waitlist control	No significant differences for reductions in depressive symptoms (all groups improved). Improvements maintained at 6-month follow-up in the peer condition. Significantly lower intervention adherence, user experience ratings, and acceptability of peer compared to counsellor conditions	Yes Some peer-support participants reported lack of group connection, dislike of sharing with strangers, discomfort reading others stories, dislike of perceived obligation to respond, and disappointment with peer feedback
Wu, Chang, Courtney et al 2012	Cardiac patients with type 2 diabetes	Based on Bandura's theory of self-empowerment.	To test whether peer support from former patients would improve adherence to self-management	Peer supporters trained but no description; peer supporters followed up with texts and phone calls to provide support. Peer supporters receive ongoing support	Intervention group n=15 received education from nurse then follow up on discharge	No	N=15; received usual education	Both intervention and control groups improved in levels of information, but intervention improved more; however intervention group only showed low improvement in self-efficacy and self-care behaviours. Note short time frame of 4 weeks.	Not reported

					Too low powered to measure self-efficacy and self care effectively.	

Table of Systematic Reviews and Meta-analyses on peer support (11)

Article	Target Population / Health Condition	Definition of peer support	Number of included articles, participants across articles, and review methodology	Main Findings	Recommendations
Barker & Maguire 2017	People experiencing homelessness	Substance Abuse and Mental Health Services Administration (SAMHSA) definition of peer support: "Services [that] are delivered by individuals who have common life experiences with the people they are serving" (p.1) "Intentional" peer support (IPS): Peer support intentionally fostered by agencies through mentoring and/or mutual support; In both models "the common element is that peers share personal experiences with their clients and are viewed as distinct from professionals"	Included articles: 10 (all study designs) *n* = 1452 (range 10 – 340) Narrative synthesis	- All 11 articles showed some positive significant outcomes of peer support for homelessness including on overall quality of life (QOL), social support, physical and mental health, addiction/alcohol and drug (AOD) use, life skills, homelessness, criminality, employment/finances, attendance/interest in supports - Four common factors identified that theoretically mediated the link between PS and QOL including shared experience and role modelling (life skills, AOD use, health, criminality), provision of social support, and increasing attendance/interest (including employment)	- Significant methodological limitations observed across articles including lack of randomisation to peer support interventions vs usual care, lack of blinding - Organisations should focus peer support in areas where it is shown to have some effectiveness, including reduction of AOD use, increased social support, and physical/mental health
Bartone, Bartone, Violante 2017	Bereaved survivors of sudden or unexpected death of a family member, close friend or co-worker	"A system of giving and receiving help founded on key principles of respect, shared responsibility, and mutual agreement of what is helpful…" (as cited in Mead, Hilton & Curtis, 2001, p.135) - emotional, social or practical support… empathic understanding, information, and advice (p.2)	Included articles: 32 *n* = 3,629 (range = 4 – 564) Narrative synthesis	- Most articles showed peer support was helpful to bereaved people - 18 articles showed peer support was associated with reduced grief symptoms, increased wellbeing, and personal growth - Providers of peer support reported increased personal growth and meaning in life - Peer support appeared	- Overall the available evidence to suggests that peer support is beneficial to those bereaved by unexpected/sudden death - Longitudinal articles and control for the recency and nature of the loss are needed - Further research is needed to understand what best practices and procedures are needed to support effective peer support interventions

				- particularly beneficial fors bereavement following suicide or other socially stigmatised loss - 6/7 internet based articles indicated online peer support was beneficial, however face to face support appeared to be more effective	
Bender, Radhakrishnan, Diorio et al 2011	Internet pain management interventions	Social support / inadequately defined	Included articles with peer support focus: 3 n = 635 (range = 202 – 433) Narrative synthesis	- Limited but promising support from two articles for improvements from online peer support on pain intensity, activity limitation, health distress and self-efficacy	- Peer support can benefit from similarity of experiences and shared resources - Online forums and communities may offer a kind of peer support that is different to face to face support and may represent a new form of treatment - No articles examined social media - Further articles exploring social media and online communications are warranted
Burton, Farrier, Hill 2018	Older people's participation in physical activity	Peer support defined as peer delivery of programs (leadership) or motivation of older people (support). Peers defined as older aged, non-specialist, and trained in delivery of the study intervention	Included articles: 18 n = 2307 (range = 14 – 432) Narrative synthesis and meta-analysis	- Overall study quality rated medium to high - 16/18 articles reported improvement in physical activity and subjectively perceived physical benefits - Meta-analysis of results from 4 articles did not confirm peer support benefits, with control group showing greater increases in physical activity and benefits than the intervention groups - Accordingly, results are inconclusive regarding benefits of peer support	- Being social during physical activity has been reported as important and a key attraction to older people's willingness to engage in physical activity groups - It is unclear whether peer support to engage in increased activity translates to measurable physical health benefits - Future research using larger samples and consistent measures required
Fuhr, Salisbury, de Silva et al 2014.	To evaluate the effectiveness of peer-delivered interventions on clinical and psychosocial outcomes in people with severe mental illness and depression in high income countries.	Defines peer support as asymmetrical, one-directional relationship. Peer support delivered by person with past serious mental illness or depression	14 papers included ; 10 showed positive effect for severe mental illness and 4 showed little change in depression	- Assessment of methodological quality of research undertaken and some of it found to be poor; where of good quality the evidence was better. Overall poor evidence of effectiveness	- Recommends that research on PS in low income countries might demonstrate
Haines, Beesley, Hopkins, et al 2018	Patients and families currently with experiences of critical/intensive care units	"Peer support services bring together non-professionals with similar stressors or health problems… for mutual support or	Included articles: 8 n = 284 (range = 10 – 67)	- One to one peer support was associated with increased social support and self-efficacy and reduced psychological	- Limited evidence to support peer support in critical care settings - There is a need for well-designed and adequately reported articles

		unidirectional support from an experienced peer to a novice peer… delivered in groups or pairs, and in person, over the phone, or through the internet" (as cited in Pfeifer, Heisler,Piette, et al., 2011)	Narrative synthesis	morbidity in 2/8 articles - 6/8 articles were rated as methodologically flawed and poorly reported, with no conclusions able to be made regarding study outcomes	
Kingod, Cleal, Wahlberg et al 2017.	Peer support accessed online by people with chronic illnesses.; aim to understand how PS works.	"peer-to-peer support is defined as linking people with the same illness and similar characteristics to enable them to share knowledge and experience"	Included articles = 13. Addressed online interaction for people with chronic illnesses. Qualitative review methods.	4 themes identified: illness associated identity work; social support and connectivity; experiential knowledge sharing; and collective voice and mobilization	- Has implications for healthcare workers who want to improve social support for people with chronic illnesses.
Patil, Ruppar, Koopman, 2018	Cardiovascular disease (CVD) risk factors in adults with diabetes	"Support from a person who has knowledge from their own experiences with a chronic condition…. Being a peer supporter empowers patients to improve their [disease] self-management skills while incorporating personal experiences to empathise with other affected individuals" (p.2)	Included articles: 16 Narrative synthesis and meta-analysis	- Small, significant effect of peer support on systolic blood pressure - No significant effect on diastolic blood pressure, cholesterol, body mass index, diet, or physical activity - Several nonsigificant meta-analytic findings trended toward significance including for cholesterol and BMI change	- Although the effect on systolic blood pressure was small, it would be clinically relevant at a population level if sustained over time - Peer support may be a feasible way to initiate and maintain cardiovascular health in large populations - Peer-delivered interventions may be feasible for hypertension and diabetes self-management in areas with limited professional healthcare resources - Most articles were limited to between 6 weeks and 12 months, limiting the ability of the study to detect longer term changes inn CVD biomarkers - Further articles with larger samples and longer follow-up periods are required
Shilling, Morris, Thompson-Coon 2013	Systematic review of qualitative and quantitative evidence of PS for parents of children with disabling conditions	No definition used; social identity identified as a theme across the articles	Included articles =17; 10 1 mixed methods) qualitative and narrative synthesis including thematic analysis used. Systematic reviews showed problems with small sample sizes. No study on cost-effectiveness.	- Outcome measures need to be better explored as do timeframes	- Limited and inconsistent evidence from RCTs suggests better outcome measures be explored. Qual articles strongly suggest parents perceive benefits from PS.
Small, Blcken, Blakeman et al 2913	Aim to establish effectiveness of telephone support by "lay health workers" for people with CKD.	Aim to establish effectiveness and cost-effectiveness	. 10 papers included	- Employed "pooled-methods" analysis to make comparisons between the articles. Full report of biases and limitations of research.	- No research reported cost-effectiveness; other research reported better adherence and self-management.
Stubbs, Williams, Shannon 2016	Health behaviours of people with Serious Mental Illness (SMI)	"Peer support was defined as involving one or more persons who	Included articles: 7	- Heterogeneity in type of peer support provided and the role	- the quality of evidence is inadequate at this stage to

| | | have a history of mental illness and have experienced significant improvements in their psychiatric condition offering services and/or supports to other people with SMI" (p.485) | *n* = 136 (range = 10 – 80)

 Narrative synthesis | | - of peer support workers
 - Equivocal support for impact of peer support on lifestyle changes
 - Inconsistent evidence to support use of peer support for change in lifestyle and indices of physical health in SMI
 - Some evidence suggesting peer workers prefer co-learning over expert models of support | recommend widespread implementation
 - Strong need for adequately powered and high quality RCTs incorporating objective measures of physical activity
 - Peer support workers must be adequately supported to lead or co-lead interventions |

Table of articles providing further information on peer support effectiveness and/or using methods other than Randomised Controlled trial methods (5)

Article	Target Population	Theoretical model for peer support	Peer supporters	Peer supporter training or supervision	Intervention	Outcomes	Adverse experiences reported?
Bartone, Bartone, Gileno 2018	Bereaved people	Grounded theory	Peer supporters interviewed to establish best practice in conduct of PS		Interviews with peer supporters of bereaved people	Arrives at 8 elements that should be present to deliver best practice	Monitoring, support or supervision may be neglected
Bergin, Grogan, Bernshaw 2016	Protocol inadvance of RCT. Nurse-led + peer support telephone support for women undergoing gynae ca. treatment	Not stated. RCT using mixed methods approach. Follows UK MRC research protocols for complex interventions				Not possible to assess. Pilot project showed that participants liked it.	
CADTH 2013	PS undertaken by people with T2D, heart disease, hypertension, COPD and HIV	Rapid Review to assess clinical and cost-effectiveness vs usual care	Included professionally-led, peers with those conditions and support groups			Notes poor evidence across all articles re effectiveness and cost-effectiveness. 2 of 6 heart disease RCTs showed significant clinical effectiveness.PS in HIV found to reduce sexual risk behaviour. Only one study assessed cost -effectiveness but	

						did not include all risk factors.	
Crawford &Bath2013	Discussion paper exploring PS models to improve opioid substitution tmt among people with hep C virus.	No definition or theory applied. Peer support delivered by ex-patients working in groups and conducting co-facilitation (with a worker)		Notes that training always undertaken pf peer supporters	Models discussed: one model is created by the service and another is community generated through foundations.	Both have merits: enhance tmt uptake and and adherence. Asserts that both mdeols capable of handling large numbers of clients but not a well-supported assertion. Community-controlled PS has advantage of building trust.	Not reported
Trachtenberg, Parsonage, Shepherd 2013	UK lit review discussing PS in mental health snd cost-effectiveness	Defines peer support only	N/A	Notes the variability on the amount and quality of training a peer supporter may receive.		Notes the variable research on effectiveness and the cost-effectiveness even less researched. Articles included fell into 2 groups: one where trained PS took on some of the work of employed worker and other where peer supporter offered additional services such as befriending, supporting.	Not reported