## Supplementary Material F

| Reference | Aims, participants and search method | Inclusion and exclusion criteria | Exposure, comparison and outcome measures | Results | Conclusions, quality issues |
|---|---|---|---|---|---|
| **Year and author:**<br>Foster 2007<br><br>**Country:**<br>UK<br><br>**Study type:**<br>Systematic review<br><br>**Evidence level:**<br>I | **Aims:**<br>To assess systematically the effectiveness of lay-led self management programmes for people with chronic conditions<br>**Participants:**<br>Included participants with arthritis, diabetes, hypertension and chronic pain as well as some other respiratory conditions and other chronic conditions. All participants were adults.<br>**Search period:**<br>1986 to 2006<br>**Search method:**<br>CENTRAL<br>MEDLINE<br>EMBASE<br>AMED<br>CINAHL<br>DARE<br>National research register | **Inclusion:**<br>RCTs comparing structure lay-led self management interventions with no programme or clinician led programmes<br>**Exclusion:**<br>Interventions directed at healthy populations, or high risk of a disease, participants undergoing cancer therapy. Education delivered as literature alone. | **Exposure:**<br>Lay led self management interventions.<br>Interventions included structured programmes delivering education on self management, lay led or peer led. Included group and individual, face to face, internet, post, telephone. Also included education for carers/relatives.<br>**Comparison:**<br>No intervention or led by clinician<br>**Outcome measures:**<br>Health status<br>Health behaviour<br>Health care use<br>Self efficacy<br>Knowledge<br>Social roles/activities attendance<br>Communication with physician<br>Cost<br>Effects on family/carer<br>Adverse outcomes<br>**Follow-up time:**<br>Only one trial reported beyond 6 | **Results:**<br>17 trials of 7442 participants.<br>10 studies were conducted in North America. 70% of participants were female, mean age ranged from 44 to 79 years and in eleven studies reporting ethnicity 90% of participants were White. Duration of education ranged from <10 years to >13 years. Eight studies used media campaigns to recruit participants.<br>5 studies used the Arthritis Self Management Programme, 7 studies used the Chronic Disease Self Management programme of the Expert Patient Programme and the remainder used other disease specific interventions. The theoretical basis was primarily self efficacy in 14 studies. The remainder being the Theory of Reasoned Action, Social Support and one trial did not report the theoretical framework.<br>Depression, anxiety and | **Author's conclusions:**<br>Overall there were no differences in whether the interventions were led by lay people or health professionals.<br>Overall lay led interventions resulted in short term improvements in self rated health, cognitive symptom management, self efficacy and frequency of aerobic exercise. No evidence to support improvement in quality of life or health care use.<br>**Reviewer's conclusions:**<br>Some indirectness in the population may compromise generalisability. Limited follow time. Only one trial reported past 6 months. The overall quality of the included trials was 'unclear'<br>Follow-up rates ranged from 65 – 90%.<br>**Source of funding: None**<br>**Additional comments:** |

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| | NHSEED<br>PsycINFO<br>Science Citation Index<br>Reference lists, contacting authors and experts. No language restrictions. | | months | psychological well-being<br><br>6/17 reported on depression. A small but statistically significant effect (SMD -0.16, 95%CI -0.24 to -0.07; P=0.00036) and similarly with anxiety as reported in 3/17 (SMD -0.14, 95%CI -0.25 to -0.04; P=0.0057).<br><br>HRQoL 3/17 reported. No differences between groups identified (WMD -0.03, 95%CI -0.09 – 0.02; NS)<br><br>Self rated general health – reported in 6/17 trials suggested that intervention participants were in better health at follow-up with a statistically significant improvement (WMD -0.20, 95%CI -0.31 to -0.10; P=0.00018) however heterogeneity was 68.2% $I^2$.<br><br>Health distress- reported in 4/17 studies. Greater improvement in the intervention group (SMD -0.25, 95%CI -0.34 to -0.15; P<0.00001).<br><br>Clinical measures – 2/17 trials reported this for A1c. No differences between groups identified. | |

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| | | | | Exercise – 7/17 reported on self reported changes in frequency of aerobic exercise. A small but statistically significant increase was found in the intervention groups (SMD -0.20, 95%CI -0.27 to -0.12; P<0.00001).<br><br>Health care utilisation –No differences between groups in 9/17 studies reporting the outcome for visits to physician or GP.<br><br>No difference between groups for nights spent in hospital (6/17 studies).<br><br>Self efficacy was significantly improved in the intervention group (P<0.00001) in n10/17 trials but main focus was on ability to manage pain. | |
| **Internal validity:** | + | | | | |
| **Study results – precision:** | + | | | | |
| **Applicability (external validity):** | ? | | | | |
| **Overall score:** | + | | | | |

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|---|---|---|---|---|---|
| **Year and author:**<br>Shaw, 2006<br><br>**Country:**<br>Australia<br><br>**Study type:**<br>Systematic review<br><br>**Evidence level:**<br>I | **Aims:**<br>Examine the effectiveness of chronic disease self management for people with asthma, diabetes and coronary heart disease.<br>**Participants:**<br>Adults > 18 years with diabetes, asthma, coronary heart disease and then generic intervention<br><br>**Search period:**<br>1994 - 2006<br><br>**Search method:**<br>Limited to English language<br>AustHealth<br>Medline, PsycINFO, CINAHL, EMBASE, CENTRAL, Cochrane library, Expert centres, reference lists<br>Search string provided | **Inclusion:**<br>Type of study not specified but included adults, published after 1994,<br>With a control group, in English language, meeting pre-determined quality criteria<br><br>**Exclusion:**<br>Not relevant to question<br>Not a primary study<br>Univariate analysis only<br>Insufficient data reported to asses quality<br>Quality was weak in four or more pre-determined criteria<br>Absence of specified outcomes | **Exposure:**<br>Intervention had to contain a minimum of two of the following:<br>Problem solving<br>Behavioural support<br>Managing emotions<br>Self monitoring/treatment action plans<br><br>**Comparison:**<br>Control group<br><br>**Outcome measures:**<br>Quality of life<br>Self efficacy<br>Health service use<br>Physical activity<br>Clinical measures<br>Cost effectiveness<br><br>**Follow-up time:** | **Results:**<br>4 generic (non-disease specific) programmes from 5 papers were identified.<br>Peer leaders delivered the courses and participants were recruited via media, health professionals, community and medical centres.<br>Interventions lasted 6-7 weeks for 2-2.5 hours and were group sessions. 3 studies targeted non-english speaking groups to evaluate cultural adaptations.<br><br>All participants had chronic disease and most had multiple chronic co-morbidities. The most common conditions were arthritis, diabetes, lung and heart disease.<br><br>The studies recruited more women 65-70% than men and mean age was 57-66 years, education level depended on migrant background and insurance cover.<br><br>Physical activity – Scores were significantly higher in all four self management programmes compared with controls. | **Author's conclusions:**<br>Generic programmes are effective for people with a range of chronic conditions for improving self efficacy, symptom experience, QoL, increasing physical activity and reducing hospitalisations and emergency department use.<br><br>**Reviewer's conclusions:**<br>Selection bias means that intervention group may be more biased. Attrition ranged from 17-20%<br><br>**Source of funding:**<br><br>**Additional comments:** |

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| | | | | Quality of Life – Measures of QoL including health distress and somatic symptoms and self rated health had significantly better outcomes in the intervention compared with the control groups.<br><br>Self efficacy - Self efficacy scores were significantly higher for the intervention in 3 of the studies that examined this and improvements were still sustained after 1-2 years.<br><br>Health service utilisation – 3 out of 4 studies demonstrated a benefit for health service use compared with controls, in particular for fewer hospital stays and nights in hospital. There were no differences in visits to physicians and emergency departments. | |
| **Internal validity:** | + | | | | |
| **Study results – precision:** | Na | | | | |

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| **Applicability (external validity):** | ? | | | | |
| **Overall score:** | ? | | | | |

| Reference | Aims | Participants | Exposure, comparison, outcome measures and follow up | Results | Conclusions, quality issues |
|---|---|---|---|---|---|
| **Year and author:**<br>Eakin 2007<br>**Country:**<br>USA<br>**Study type:**<br>RCT<br>**Evidence level:**<br>II | **Aims:**<br>Evaluate the Resources for Health trial in those with multiple chronic conditions | **Study setting:**<br>Community health centre in Denver.<br>**Participant characteristics:**<br>Identified through clinic records<br>Mean age 49.5, 78.5% female, 75.6% Hispanic/Latino,<br>15.1% high school graduates<br>61% had 3 or more chronic conditions<br>**Inclusion:**<br>Diagnosis of more than one chronic condition (i.e. hypertension, chronic pain, hypercholesterolaemia, depression, type II diabetes, osteoporosis, hepatitis, obesity, chronic lung disease, heart disease, previous stroke, multiple sclerosis), aged over 30 years, having a telephone and not planning to move out of the area in the study's time frame<br>**Exclusion:** | **Exposure: n=101**<br>Resources for health<br>Two face to face visits (60-90 mins) 3 months apart, three follow-up phone calls (2 and 6 weeks after initial visit and one 2 weeks after last visit) and three tailored newsletters related to the participants goals.<br>Content: physical activity and dietary recommendations and goal setting and a personalized action plan.<br>**Comparison: n=99**<br>Usual care, mailed a local area community resource guide and three newsletters unrelated to the health topic<br>**Outcome measures:**<br>Behavioral Risk Factor Surveillance Survey Physical Activity items<br>Kristal Fat and Fiber Behavior Questionnaire<br>Chronic Illness Resource Survey<br>**Follow-up time:**<br>6 months | **Results:**<br>Statistically significant differences between groups for dietary behaviour (P=0.01) in favour of improved dietary behaviour in the intervention group at 6 weeks and 6 months. This effect however disappeared when the data was adjusted for the Chronic Illness Resource Scale which indicated that this mediated dietary behaviour. This is the level of support received from multiple sources including family, friends and health professionals<br>There were no significant differences between groups for physical activity, either for minutes walked per week or meeting national physical activity guidelines. | **Author's conclusions:**<br>Authors claim this was an effective intervention<br>**Reviewer's conclusions:**<br>200/605 potential participants were randomised<br>Attrition data was >20%<br>77% received at least 3 of 5 interventions.<br>Low literacy group<br>The benefits observed in dietary change was mediated by social and health professional support and there was no effect on physical activity.<br>**Source of funding:**<br>Robert Wood Johnson Foundation<br>**Additional comments:**<br>Behavioural-ecological using the 5 A's approach<br>Led by bilingual health educator<br>Individualised intervention |

| Reference | Aims | Participants | Exposure, comparison, outcome measures and follow up | Results | Conclusions, quality issues |
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| Bias | Judgement | Support for judgement |
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| **Random sequence generation** | Low risk | Computer randomised |
| **Allocation concealment** | Low risk | Sequential sealed envelopes but unclear if opaque |
| **Blinding** | High risk | No blinding |
| **Incomplete outcome data** | High risk | Flow diagram without reasons, states ITT but not clear. Not clear if differed from non-participants |
| **Selective reporting** | Low risk | A priori outcomes reported |

| Reference | Aims | Participants | Exposure, comparison, outcome measures and follow up | Results | Conclusions, quality issues |
|---|---|---|---|---|---|
| **Year and author:**<br>Elzen, 2007<br><br>**Country:**<br>Netherlands<br><br>**Study type:**<br>RCT<br><br>**Evidence level:**<br>II | **Aims:**<br>Evaluate the Chronic Disease Self Management Programme (CDSMP) in older people in the Netherlands | **Study setting:**<br>Patients attending an Internal Medicine outpatient clinic in Groningen<br><br>**Participant characteristics:**<br>Recruited through media announcements and magazine advertising and through an outpatient clinic.<br>Mean age 68.35 years, 63.2% female; Diabetes 32.1%; Lung disease 27.9%; Arthritis 33.8%<br>Heart disease 5.9%<br><br>**Inclusion:**<br>≥59 years, having angina, heart failure, COPD or asthma, arthritis, or diabetes, able to communicate in Dutch, available to attend a 6 week course<br><br>**Exclusion:**<br>Life expectancy less than one year, already attending a disease | **Exposure: n=68**<br>CDSMP - 6 weekly sessions 2.5 hrs duration. Content: Action planning, problem solving, exercise, symptom management, diet, fatigue management, medication, managing emotions, communication. A copy of the book 'Living a Healthy Life with Chronic Conditions"<br><br>**Comparison: n=68**<br>Usual care + patient book<br><br>**Outcome measures:**<br>General Self Efficacy Scale<br>Exercise<br>Cognitive symptom-management<br>RAND-36 ( health status)<br><br>**Follow-up time:**<br>Six months after the end of the course | **Results:**<br><br>Adjusted results indicated no differences between intervention and usual care for self efficacy at the end of treatment of 6 months follow-up.<br><br>There were no significant differences between groups for the exercise outcome.<br><br>No difference in mental component summary scale for health status between groups | **Author's conclusions:**<br>No differences in self efficacy, self management behaviour or health status in older participants.<br><br>**Reviewer's conclusions:**<br>94/361 approached actually participated. Non-participants were more restricted in activity, lived further away from intervention location and more likely to have a partner. An additional 50 participants were then recruited.<br>Low attrition. Attendance at intervention was high.<br><br>**Source of funding:**<br>Netherlands Organization for Health Research and Development<br><br>**Additional comments:**<br>Chronic Disease Self Management Programme (Stanford Model)<br>Group intervention (size 10-13)<br>Led by two leaders (psychologist) |

| Reference | Aims | Participants | Exposure, comparison, outcome measures and follow up | Results | Conclusions, quality issues |
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| | | specific self management programme, participating in another study, or permanent residents of residential nursing homes. | | | |

| Bias | Judgement | Support for judgement |
|---|---|---|
| **Random sequence generation** | Low risk | Randomised by blocks |
| **Allocation concealment** | Unclear risk | No details |
| **Blinding** | High risk | No blinding |
| **Incomplete outcome data** | High risk | Not clear if ITT, recruited one group and then additional |
| **Selective reporting** | Low risk | A priori outcomes reported |

| Reference | Aims | Participants | Exposure, comparison, outcome measures and follow up | Results | Conclusions, quality issues |
|---|---|---|---|---|---|
| **Year and author:**<br><br>Griffiths 2005<br><br>**Country:** UK | **Aims:**<br>To determine the effectiveness of a culturally adapted lay-led self management programme for | **Study setting:**<br>Tower Hamlets , London. UK from 10 GP practices<br><br>**Participant characteristics:** | **Exposure: n=238**<br>Expert Patient Programme<br>Content:<br>Acute and chronic conditions compared, cognitive symptom management, better breathing, | **Results:**<br>The intervention group had significantly improved self efficacy (effect size 0.67; 95%CI 0.08 – 1.25; P =0.025) and self management behaviours (effect | **Author's conclusions:**<br>Bangladeshi patients attending a self management programme benefited from the intervention although there was no decrease in the use of health care resources. |

| Reference | Aims | Participants | Exposure, comparison, outcome measures and follow up | Results | Conclusions, quality issues |
|---|---|---|---|---|---|
| **Study type:**<br>RCT<br>**Evidence level:**<br>II | Bangladeshi adults with chronic disease | Diabetes 68.5%<br>Asthma 16.5%<br>Cardiovascular disease 5.5%<br>82% had more than one condition<br>Mean age 48.45 years (9.7 SD)<br>57% female<br>Mean age in years when education completed 12.3 (6.9SD)<br>**Inclusion:**<br>Bangladeshi, > 20 years, with diabetes, arthritis, respiratory or cardiovascular disease,<br>**Exclusion:**<br>- | action plans, dealing with emotions (fear, anger, frustration), fatigue management, monitoring exercise, healthy eating, communication skills, problem solving, medication use, depression management, self-talk, treatment decisions, guided imagery, working with your health care professional.<br><br>Programme translated into local Bangladeshi language and supported by videocassette instead of information booklet<br><br>Programme lasted for 6 weekly 3 hour sessions<br>**Comparison: n=238**<br>Wait list control<br>**Outcome measures:**<br>Self efficacy using Chronic Disease Self Efficacy Scale<br>Self management behaviour<br>Communication with physician<br>Hospital Anxiety and Depression Scale<br>Pain<br>Fatigue<br>Breathlessness<br>EuroQol EQ5D | size 0.53; 95%CI 0.01 – 1.06, P = 0.047) compared with the wait list control group.<br><br>There were no differences between groups for communication with physician, depression, anxiety, health status (EQ5D) or health care use as measured by visits to the GP/practice nurse in previous 3 months | **Reviewer's conclusions:**<br>Included indirect population who were invited , only 34% of those invited were randomised. Compliance for the intervention was not good. 51% attended half or more of the sessions and 21% attended no sessions.<br>Low levels of education<br>**Source of funding:**<br>NHS Primary Care Studies Programme<br>**Additional comments:**<br>Expert Patient Programme (lorig) Adaptation of CDSMP (Stanford model) based on social cognitive theory<br><br>Run in GP practices and community centres<br><br>Led by pairs of trained lay tutors who themselves had chronic diseases |

| Reference | Aims | Participants | Exposure, comparison, outcome measures and follow up | Results | Conclusions, quality issues |
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| | | | **Follow-up time:**<br>4 months | | |

| Bias | Judgement | Support for judgement |
|---|---|---|
| **Random sequence generation** | Low risk | Computer minimisation programme for randomisation and stratified by condition |
| **Allocation concealment** | Low risk | Central researcher |
| **Blinding** | Low risk | Outcome assessors were blinded to allocation |
| **Incomplete outcome data** | Low risk | Flow chart of attrition, minimal losses over time <20%, ITT |
| **Selective reporting** | Low risk | A priori outcomes reported |

| Reference | Aims | Participants | Exposure, comparison, outcome measures and follow up | Results | Conclusions, quality issues |
|---|---|---|---|---|---|
| **Year and author:**<br>Jerant 2009<br>Jerant 2008<br>Jerant 2008b<br>Franks 2009<br>**Country:**<br>USA<br>**Study type:**<br>RCT | **Aims:**<br>Evaluate a home based self management programme | **Study setting:**<br>Home of participant<br>**Participant characteristics:**<br>Average age 60.3 years, 77% were female, 79% were non-Hispanic white and were generally well educated.<br>55.6% arthritis<br>46.6% depression | **Exposure: n= 138 (home) and 139 (telephone)**<br>Homing in on Health (HIOH)- one on one intervention delivered by telephone.<br>Programme delivered by trained peers who were not clinicians but who had experience of chronic conditions.<br>Delivered on a one to one basis either in patients home or by telephone.<br>Topics included exercising safely, | **Results:**<br>Self efficacy was significantly higher in the home based group compared with telephone (P = 0.01) and usual care groups (P=0.001) at 6 weeks. This persisted at 6 months but there was no difference at 1 year.<br>Quality of life and health status. No significant differences between groups for physical and mental summary scores in SF 36. | **Author's conclusions:**<br>Peer led chronic illness self management programmes had a small to moderate short term effect on health outcomes. Telephone intervention did not appear to be effective compared to the at home intervention. Raises issues around cost effectiveness of such programmes<br>**Reviewer's conclusions:**<br>Contains indirect populations, some lack of precision although power |

| Reference | Aims | Participants | Exposure, comparison, outcome measures and follow up | Results | Conclusions, quality issues |
|---|---|---|---|---|---|
| **Evidence level:**<br>II | | 41.3% diabetes<br>10.3% COPD<br>11.3% congestive heart disease<br>**Inclusion:**<br>40 + years with one or more of: arthritis, asthma, COPD, congestive heart failure, depression, diabetes. Able to speak and read English, living in a private home with access to telephone, adequate hearing and vision, at least 1 activity impairment (Health assessment Questionnaire)and / or a score of 4 or more on the CES-D depression scale<br>**Exclusion:**<br>See above | coping with difficult emotions, using cognitive symptom management techniques<br>**Comparison: n= 138 Usual Care**<br>An initial home visit by study nurse and the same follow-up telephone questionnaires but otherwise received usual care from physician.<br>**Outcome measures:**<br>Self efficacy<br>Quality of life (SF 36; EQ-5D; Visual Analog Scale- EQ VAS)<br>Functional ability (HAQ)<br>Depressive symptoms (CES-D)<br>Medication adherence<br>Hospitalisations<br>Health expenditure<br>Medical Outcomes Study 5 item general health subscale (GH)<br>**Follow-up time:**<br>12 months | There were significant differences in the EuroQol VAS scores in favour of the home group compared to the usual care group at all time points and at 1 year compared with the telephone group. There were however no differences between groups for the Euro Qol 5D or the medical outcomes study general health subscale score<br>Depressive symptoms<br>No differences between groups for depressive symptoms (CES-D). For those with scores >9 (moderate or greater symptoms) the in home programme had significant improvements compared with usual care in improving the physical composite score of the SF36 at 6 months (P=0.03) and 1 year (P = 0.04).<br>Medication adherence.<br>No differences between groups for medication adherence<br>Hospitalisations<br>No differences between groups | calculation conducted. Some issues around self selection of participants. Patients characteristics are skewed to white, well educated females.<br>Effectiveness of some outcomes did not persist over time (self efficacy)<br>**Source of funding:**<br>AHRQ grant<br>**Additional comments:**<br>Modification of the Chronic Disease Self Management programme (Stanford Model)<br>One –on –one intervention by trained lay person |

| Bias | Judgement | Support for judgement |
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| **Random sequence generation** | Low risk | Block randomisation |

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| **Allocation concealment** | Low risk | | | Opaque envelopes used | |
| **Blinding** | High risk | | | No evidence of patients investigators or assessors being blinded | |
| **Incomplete outcome data** | High risk | | | Flow chart of losses although reasons not provided | |
| **Selective reporting** | Low risk | | | A priori outcomes reported | |

| Reference | Aims | Participants | Exposure, comparison, outcome measures and follow up | Results | Conclusions, quality issues |
|---|---|---|---|---|---|
| **Year and author:**<br>Kennedy 2007<br>Reeves, 2008 (secondary analysis)<br>**Country:** UK<br>**Study type:**<br>RCT<br>**Evidence level:**<br>II | **Aims:**<br>Clinical and cost effectiveness of the Expert Patient Programme in the UK | **Study setting:**<br>Community settings in England involving 28 strategic health authorities<br>**Participant characteristics:**<br>629 patients with various chronic conditions<br>Mean age 55.4 years 69. 8% women, 94.9% white<br>11.7% endocrine<br>6.4% respiratory<br>7% circulatory<br>**Inclusion:** Self determined long term chronic illness<br>**Exclusion:**<br>- | **Exposure: n=313**<br>Expert Patients Programme<br>Six 2.5 hr group (n=8-12) weekly sessions that included sessions on relaxation, diet, exercise, fatigue, breaking the 'symptom cycle', managing pain and medication and communication.<br>Goal setting and action plans were key components worked on by patients and leader.<br>**Comparison: n=316**<br>Waiting list control who could access the programme after 6 months<br>**Outcome measures:**<br>Changes in self efficacy<br>Health care utilisation<br>EuroQol<br>EuroQol-5D<br>**Follow-up time:**<br>6 months and 12 months for intervention group only | **Results:**<br>Those receiving immediate course access reported greater self-efficacy (P<0.000) and energy (P< 0.004) at 6 month follow-up compared with the wait list group<br>No differences in health services utilisation, general health, pain, diet, use of complementary products or information seeking.<br>Intervention group showed improvements in better psychological wellbeing (P<0.000), lower health distress (P=0.0003), more exercise (P=0.047), more relaxation (P=0.018) compared with the control group.<br>The secondary analysis indicated that those with low self efficacy at baseline were more likely to improve during the Expert Patient Programme.<br>Those who scored lower ay baseline on general health , self efficacy and health related quality of life were more likely to show an improvement in health | **Author's conclusions:** Lay led self management programmes appear to be effective in improving self efficacy and energy in patients with chronic disease. May be a useful adjunct to current services. No differences in health care utilisation<br>**Reviewer's conclusions:**<br>Indirect population, self selected, attrition relatively low compared to other studies at < 20%. Patients on the wait list may have responded differently due to the fact that it was a wait list.<br>Some benefits in self efficacy and psychological wellbeing, increased exercise and relaxation at 6 months. No attempt to establish if effect lasted longer. No effect on health service utilisation<br>**Source of funding:**<br>Depart of Health , UK<br>**Additional comments:**<br>Expert Patients Programme (Lorig) – anglisised version of the CDSMP (Stanford model)<br>Based on Social Learning Theory<br>Taught by two trained lay trainers or volunteer tutors<br>Theoretical framework for outcome measurement included self care |

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| | | | | related quality of life after participating in the Expert Patient Programme. | behaviour training, exercise programmes, cognitive symptom management, relaxation, self efficacy enhancement training, skills mastery and modelling |

| Bias | Judgement | Support for judgement |
|---|---|---|
| **Random sequence generation** | Low risk | Computer generated minimisation process |
| **Allocation concealment** | Low risk | Used a member of staff not related to the project |
| **Blinding** | High risk | No blinding |
| **Incomplete outcome data** | High risk | 313 randomised to intervention and 248 (79.2%) completed 6 month follow up; 316 randomised to control and 273 (86.4%) completed 6 month follow up . No reasons provided |
| **Selective reporting** | Low risk | A priori outcomes reported |

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|---|---|---|---|---|---|
| **Year and author:**<br>Lorig 2006<br><br>**Country:**<br>USA<br><br>**Study type:**<br>RCT<br><br>**Evidence level:**<br>II | **Aims:**<br>To determine the efficacy of the internet based CDSMP | **Study setting:**<br>Participants homes<br><br>**Participant characteristics:**<br>Self selected via internet sites, media announcements and newspapers.<br>Of 1952 who left their details 958 returned their baseline questionnaire and were randomised<br>Mean age 57.5 years, 71.4% female, 15.6 years of education.<br>Diabetes 62.8%<br>Hypertension 46.1%<br>Lung disease 45.7%<br>Heart disease 47.7%<br>Arthritis 24.9%<br><br>**Inclusion:**<br>At least 18 years old, clinical diagnosis of heart disease, chronic lung disease or type II diabetes, other chronic diseases, access to computer with internet and e-mail, agree to protocol, able to complete online questionnaire | **Exposure: n=457**<br>Internet CDSMP<br>Interactive web-based, english language programme, bulletin board, book ' Living a Healthy Life with Chronic Disease'<br>Content: individualised exercise programmes, cognitive symptom management, methods for managing negative emotions, medications, physician patient communication, healthy eating, fatigue management, action planning, feedback, problem solving.<br>N=25 per workshop.<br>6 weeks, participants asked to log on 2-3 times per week for 1-2 hours to read content, post action plan on bulleting board, check in with buddy via e-mail and participate in self tests and activities<br><br>**Comparison: n=501**<br>Usual care<br><br>**Outcome measures:**<br>Pain/discomfort<br>Shortness of breath<br>Fatigue<br>Illness Intrusiveness Scale<br>Health Distress Scale | **Results:**<br>Health distress, fatigue, pain and shortness of breath had statistically significant improvement in the intervention group compared to controls at one year follow-up (P<0.05).<br><br>Stretching and strengthening exercise was significantly different at follow-up in favour of the intervention (P=0.024). No difference between groups for aerobic exercise.<br><br>Trend in favour of intervention for self efficacy but did not reach statistical significance (P=0.061)<br><br>No significant differences between groups for health service utilisation (physician visits, emergency visits or days in hospital). | **Author's conclusions:**<br>At 1 year the intervention group had sustained improvement in health distress, fatigue, pain and shortness of breath, and stretching and strengthening. There were no differences in health care utilisation<br><br>**Reviewer's conclusions:**<br>85% of controls and 78% of intervention completed 1 year follow up, participants were self selected and needed to be computer literate.<br>Drop outs differed from completers in that they were more likely to be men and less likely to be non-Hispanic White and treatment drop outs were more likely to be educated to a higher level.<br><br>Sustained improvement in some aspects of health care status at one year follow-up<br><br>**Source of funding:**<br>Archstone Foundation, The Robert Wood Johnson Foundation<br><br>**Additional comments:**<br>Chronic Disease Self Management Programme (Stanford Model)<br><br>Used to enhance self efficacy |

| Reference | Aims | Participants | Exposure, comparison, outcome measures and follow up | Results | Conclusions, quality issues |
|---|---|---|---|---|---|
| | | **Exclusion:**<br>Treatment of cancer in previous year, previous participation in small group-CDSMP | Self Rated Global Health<br>Stretching and strengthening exercise<br>Aerobic exercise<br>Use of cognitive symptom management techniques<br>Techniques to improve communication with health care providers<br>Self reported health care utilisation<br>**Follow-up time:**<br>6 months and one year | | Individualised and group internet programme<br><br>Led by two trained peer moderators |

| **Bias** | Judgement | Support for judgement |
|---|---|---|
| **Random sequence generation** | Unclear risk | Randomised but no other details |
| **Allocation concealment** | Unclear risk | No details |
| **Blinding** | High risk | No blinding |
| **Incomplete outcome data** | High risk | Reasons not given for attrition which was greater than 20% at 1 year follow-up. Analysis not by ITT |
| **Selective reporting** | Low risk | A priori outcomes reported |

| Reference | Aims | Participants | Exposure, comparison, outcome measures and follow up | Results | Conclusions, quality issues |
|---|---|---|---|---|---|
| **Year and author:**<br>Swerissen 2006<br><br>**Country:**<br>Australia<br><br>**Study type:**<br>RCT<br><br>**Evidence level:**<br>II | **Aims:**<br>Investigate the effectiveness of the CDSMP delivered to people of culturally diverse linguistic backgrounds in Victoria , Australia | **Study setting:**<br>Community settings, such as senior citizens clubs, churches and community centres.<br><br>Self selected via public service announcements, posters and brochures left in GP waiting rooms, other notices in media and through presentations<br><br>**Participant characteristics:**<br>Vietnamese, Chinese, Italian and Greek<br>Mean age 65.9 years,76% women, mean of 6.7 years education<br><br>Hypertension 43.4%<br>Diabetes 27.9%<br>Asthma 8.9%<br><br>**Inclusion:**<br>Confirmed chronic disease or affected by chronic pain; > 18 years old, from one of the ethnicities listed above, live within a listed municipality of Victoria.<br><br>**Exclusion:** | **Exposure: n=320**<br>CDSMP (Stanford model)10-15 participants, mixed ages, gender and conditions.<br>Six weekly sessions of 2.5 hrs<br>Content: symptom management, problem solving, dealing with emotions of chronic illness, exercise and relaxation, use of medication, healthy eating, communication skills.<br>Delivered in patients first language<br><br>Also received an audiocassette and programme booklets<br><br>**Comparison: n=154**<br>Wait list controls who received the programme six months after the intervention group<br><br>**Outcome measures:**<br>Health status, self efficacy, health behaviours<br><br>**Follow-up time:**<br>6 months | **Results:**<br>The intervention group had significantly higher energy levels (P<0.000) and exercised more frequently (P<0.005), used significantly more cognitive management techniques (P<0.000), reported higher levels of self efficacy (P<0.000) and reported higher levels of self reported health (P<0.000)<br><br>The control group reported significantly higher levels of health distress (P=0.043)<br><br>There were no differences between groups on the disability scale, social role/activity limitation, illness intrusiveness, depression and shortness of breath.<br><br>There were no significant differences in health service utilitisation for visits to general practitioner, specialist medical practitioners, allied health professionals, mental health practitioners, hospital emergency rooms<br><br>There were some individual language differences which are not reported here. | **Author's conclusions:**<br>People from culturally diverse linguistic backgrounds achieved better outcomes than controls although no differences in use of health services.<br><br>**Reviewer's conclusions:**<br>Wide recruitment method but still self selected, over-represented by women. High attrition rate reported by authors<br>Seems to be short term personal benefit to the psychological well-being and empowerment of the patient. No effect on health service utilisation.<br><br>**Source of funding:**<br>National Health and Medical Research Council<br><br>**Additional comments:**<br>Sessions led by two trained peer leaders<br><br>Chronic Disease Self Management Programme (CDSMP) – Stanford Model<br><br>Based on social learning theory |

| Reference | Aims | Participants | Exposure, comparison, outcome measures and follow up | Results | Conclusions, quality issues |
|---|---|---|---|---|---|
| | | <18 years old, psychological disorder of advanced neurological disorder | | | |

| Bias | Judgement | Support for judgement |
|---|---|---|
| **Random sequence generation** | Unclear risk | Randomly allocated - no details |
| **Allocation concealment** | Unclear risk | No details |
| **Blinding** | High risk | No blinding |
| **Incomplete outcome data** | Unclear risk | Of 728 participants registered on trial 254 withdrew, reasons are provided in the text |
| **Selective reporting** | Low risk | A priori outcomes reported |

| Reference | Aims | Participants | Exposure, comparison, outcome measures and follow up | Results | Conclusions, quality issues |
|---|---|---|---|---|---|
| **Year and author:**<br>Van Sluijs 2005<br><br>**Country:**<br>Netherlands<br><br>**Study type:** | **Aims:**<br>To evaluate the effectiveness of a PACE intervention applied by general practitioners on potential determinants | **Study setting:**<br>Participants recruited from 20 volunteering GP practices. GPs identified potential participants who were then randomly selected by the | **Exposure: n=191**<br>Physician based Assessment and Counseling for Exercise (PACE).<br>10 minute consultation and advised to increase physical activity + two additional visits with health care provider and two booster telephone | **Results:**<br>A statistically significant effect was observed in improved self efficacy subscales in favour of the intervention at the end of the intervention and six months but this was not sustained at one | **Author's conclusions:**<br>PACE had a positive effect on self efficacy outcomes<br><br>**Reviewer's conclusions:**<br>Of 2377 invited participants 771 were randomised, attrition was less than |

| Reference | Aims | Participants | Exposure, comparison, outcome measures and follow up | Results | Conclusions, quality issues |
|---|---|---|---|---|---|
| RCT – cluster randomised<br><br>**Evidence level:**<br>II | of physical activity | researchers<br><br>**Participant characteristics:**<br>Hypertension/hypercholestraemia or non-insulin dependant diabetes<br>Mean age 55.5 years, 49.2% female and 36.3% had a low level of education<br><br>**Inclusion:**<br>Hypertension/hypercholestraemia or non-insulin dependant diabetes, aged 18 – 70 years, physically able to be at least moderately active, not being in the maintenance stage for regular physical activity<br><br>**Exclusion:**<br>- | calls with physical activity counselor. Participant fills out questionnaire based on stages of change prior to meeting with GP. At the consultation the GP reviews the protocol and emphasises stage specific issues and feedback. Booster telephone call after 2 weeks designed to encourage positive behaviour change. Second GP visit at 4 weeks and second booster call at 8 weeks after that.<br><br>**Comparison: n=205**<br>Usual care<br><br>**Outcome measures:**<br>Self efficacy<br>Benefits and barriers to physical activity<br>Social support<br>Processes of Change Questionnaire<br><br>**Follow-up time:**<br>12 week intervention | year follow up. | 20% at one year follow –up . However the drop outs differed from those completing in that they were younger, more likely to be inactive and had a higher BMI than I year responders<br><br>**Source of funding:**<br>Netherlands Heart Foundation, Health Research and Development Council of the Netherlands, Ministry of Health Welfare and Support<br><br>**Additional comments:**<br>Based on Social Cognitive Theory (self efficacy) and Transtheoretical Model |

| Bias | Judgement | Support for judgement |
|---|---|---|
| **Random sequence generation** | Low risk | Computer generated blocks of 4 |
| **Allocation concealment** | Unclear risk | No details |

| Reference | Aims | Participants | Exposure, comparison, outcome measures and follow up | Results | Conclusions, quality issues |
|---|---|---|---|---|---|
| **Blinding** | Low risk | | | Participants in the intervention group were blinded to additional randomisation for time | |
| **Incomplete outcome data** | High risk | | | High completion rate, reasons not given for withdrawal although states ITT analysis also states that differences in the number of subjects is due to incomplete data sets. | |
| **Selective reporting** | Low risk | | | A priori outcomes reported | |