Study ID	HRQOL Allocation concealment	Baseline outcome measurements similar	Baseline characteristics similar	Incomplete outcome data	Knowledge of the allocated interventions adequately prevented during the study	Protection against contamination	Selective outcome reporting	Other risks of bias	Overall Judgement per study	Overall judgement for outcome
Kangovi et al, 2018, RCT, SF-12	Low risk: centralised randomisation scheme	Low risk: Baseline outcome measures were similar	Low risk: there were slighly more participants of hispanic ethnicity in one arm-0 vs 3.7%	Low risk: 79% ad 81% f/up in int and control and multiple imputation techniques used for missing data	Unclear risk: not possible to blind to intervention and outcome was patient reported, although RAs collecting data were blinded	Unclear risk: randomisation was at the patient level, however unlikely controls received the intervention, but not explicitedly stated whether intervention was avaialble outside the trial setting	Low risk: all outcomes are reporoted	Unclear:The authors offer commerical consulting services on setting up similar CHW interventions since 2018 after this publication	Low risk: low risk of bias in 6/9 areas, and other areas unlikely to have significant impact on ROB. While the paper is at risk of overly presenting positive fidnings all outcomes are reported along with statistical significance.	
Kangovi et al, 2017, RCT, SF-12	Low risk: centralised randomisation scheme	Low risk: Baseline outcome measures were similar	Low risk: Intervention group were more likely to be empolyed 20% vs 8%	Low risk: 88% and 87% complete data, multiple imputation	Unclear risk: not possible to blind to intervention and outcome was patient reported,	Unclear risk: randomisation was at the patient level, however unlikely they received	Low risk: all outcomes are reported	Unclear-The authors offer commerical consulting services on setting up	Low risk: low risk of bias in 6/9 areas, and other areas unlikely to have	Summary Judgement RCTs: Low risk of bias

					although RAs collecting data were blinded	controls received the intervention, so not a major factor for overall ROB		similar CHW interventions	significant impact on ROB. While the paper is at risk of overly presenting positive fidnings all outcomes are reported along with statistical significance.
Dickens et al, 2011, CBA, SF-12	High risk: CBA and evidence of selection bias with those from more deprived backgrounds not being offered entry	Low risk: significant differences in baseline scores, although linear regression model used which would have corrected for baseline scores	High risk: differences in basleine characteristics although these were adjusted for in analysis	Low risk: low rates of missing data, 84% follow up intervention and 93% control and did separate paired and unpaired analysis	Unclear risk- unclear how follow up assessments were done, by whom and if blinded	Low risk: the service was not available in areas where the control lived	Low risk: all outcomes were reported	Low risk: No other risks identified. Funded by NHS Devon, no competing interests declared.	High risk: high risk or unclear risk in 4 of 9 areas
Dickens et al, 2011, CBA, EQ-5D-3L	High risk: CBA and evidence of selection bias with those from more deprived backgrounds not being offered entry	Low risk: significant differences in baseline scores, although linear regression model used which would	High risk: differences in basleine characteristics although these were adjusted for in analysis	Low risk: low rates of missing data, 84% follow up intervention and 96% control	Unclear risk- unclear how follow up assessments were done, by whom and if blinded	Low risk: the service was not available in areas where the control lived	Low risk: all outcomes were reported	Low risk: No other risks identified. Funded by NHS Devon, no competing interests declared.	High risk: high risk or unclear risk in 4 of 9 areas

		have corrected for baseline scores								
Mercer et al, 2019, CBA, EQ-5D-5L	Unclear risk: practices randomly assigned but how not stated	Low risk: significant differences in baseline- explicitly corrected for in analysis	High risk: differences in baseline characteristics although these were adjusted for in analysis	Low risk: 76% follow up int, 92% control, ITT analysis	High risk: due to the nature of the intervention not possible to assess outcomes blindly	Low risk: the service was not available in areas where the control lived	Low risk: all outcomes were reported	Low risk: No other risks identified. Funded by NHS Scotland, no competing interests declared.	Unclear or High risk of bias in 4 of 9 areas	Summary Judgement NRCTS: High risk of Bias due to non randomised design and challenge of finding suitable controls.

Mental Health

Study ID	Allocation concealment	Baseline outcome measurements similar	Baseline characteristics similar	Incomplete outcome data	Knowledge of the allocated interventions adequately prevented during the study	Protection against contamination	Selective outcome reporting	Other risks of bias	Overall Judgement per study	Overall judgement for outcome
Grant et al, 2000, RCT, HADS A and HADS D	Low risk: sealed opaque envelopes, while there was an early error- this was identifed and those	Low risk: no important differences and baseline scores were adjusted for in analysis	low risk: control were slighlty more likely to be male and younger but otherwise comparable, this had no	Low risk: similar amounts of missing data in both arms, at 67%, however this reduced power to detect a	High risk: due to the nature of the intervention not possible to blind participants and self reported outcome	Unclear risk: randomisation was at the patient level within practices, unclear if the intervention was availale outside the	Low risk: all outcomes were reported	Low risk: No other risks identified. Funded by Avon health autothirty, no competing interests declared.	Low risk: low risk in 7 of 9 areas, blinding very challenging given nature of intervention and were using	Summary Judgement RCTs: low risk of bias

	participants excluded		impact on reuslts when adjusted for in analysis	difference as required sample size was 161		trial- suggestion it was already running, so people may have received it before entering the trial			validated PROMs
Carnes et al, 2017, CBA, HADS A and HADS D	High risk: CBA	Low risk: significant differences in baseline scores, althouhg linear regression model used which would have corrected for baseline scores	High risk: significant differences in living arrnagement, education, work status, adjustments for same did not significantly alter results, suggesting other unknown imbalances	High risk: control follow up 43%, int 35%, no data on whether those LTFup had different baseline characteristics	High risk: due to the nature of the intervention not possible to assess outcomes blindly and patients self reported	Low risk: the service was not available in areas where the control lived	Low risk: all outcomes were reported	Low risk: No other risks identified. Funded by DoH, independent research group, no competing interests declared.	High risk: high risk in 5 of 9 areas
Dickens et al, 2011, CBA, GDS	High risk: CBA and evidence of selection bias with those from more deprived background	Low risk: significant differences in baseline scores, although linear regression model used	High risk: differences in baseline characteristics although these were adjusted for in analysis	Low risk: low rates of missing data, 84% follow up intervention and 96% control	Unclear risk: due to the nature of the intervention not possible to blind participants and unclear	Low risk: the service was not available in areas where the control lived	Low risk: all outcomes were reported	Low risk: No other risks identified. Funded by NHS Hackney CCG, no competing	High risk: high risk or unclear risk in 4 of 9 areas

	s not being offered entry	which would have corrected for baseline scores			how follow up collected			interests declared.		
Mercer et al, 2019, CBA, HADS A and HADS D	Unclear risk: practices randomly assigned but how not stated	Low risk: significant differences in baseline-explicitly corrected for in analysis	High risk: differences in baseline characteristics although these were adjusted for in analysis	Low risk: 76% follow up int, 92% control	High risk: due to the nature of the intervention not possible to assess outcomes blindly and patients self reported, statisticians were blinded	Low risk: the service was not available in areas where the control lived	Low risk: all outcomes were reported	Low risk: No other risks identified. Funded by NHS Scotland, no competing interests declared.	High or unclear risk of bias in 4 of 9 areas	
Summary Judgement nRCTS: high risk of bias due to difficulty in concealing allocation, baseline differences in control groups, non randomisied design										

Social Contacts

Clarke et al, RCT	Unclear risk- register of all >75s living alone compiled and arranged into deciles by social contact	Unclear risk- Method of randomisation not sepcified	Low risk- reported and no signficant differences in baseline outcomes	High risk- characteristics such as age, gender, education etc not reported, only baseline outcome	Low risk- similar loss to follow up in both arms, with reasons	Unclear risk- participants would be aware of their allocation, although interview assesors	Low risk- while randomised at patient level it seems very unlikely control group would	Low risk- all outcomes reporte din baseline were reported at follow up	Low risk- pulicly funded, no competing interests declared	Low risk- while some areas unclear due to lack of reporting, unlikely to affect outcome, low risk in

	score and randomly allocated into control and experimental arms- how randomised not specified			measures referred to as characteristics		were blinded	have recived intervention as it was not available other than through the trial			5 of 9 areas	
Grant et al 2000, RCT, Dukes UNC score	Low risk: Sequenced numbered envelopes prepared by research team, block randomisation	Low risk: sealed opaque envelopes, howevere reported that there were isssues in ealr y stages and some patients excluded	Low risk: no important differences and baseline scores were adjusted for in analysis	low risk: control were slighlty more likely to be male and younger but otherwise comparable, this had no impact on reuslts when adjusted for in analysis	Low risk: similar amounts of missing data in both arms, at 67%, however this reduced power to detect a difference as required sample size was 161	High risk: due to the nature of the intervention not possible to assess outcomes blindly and patients self reported	Unclear risk: randomisation was at the patient level within practices, unclear if the intervention was running in the local area so possible patients could have accessed it outside the trial	Low risk: all outcomes were reported	Low risk: No other risks identified. Funded by Avon health autothirty, no competing interests declared.	Low risk: low risk in 7 of 9 areas	Low risk: Both RCTs mainly low risk- risks arise from poor reporting and nature of intervention
Dickens et al, 2011, CBA, MOS-6	High risk: controlled before after study	High risk: CBA and evidence of selection	Low risk: significant differences in baseline scores,	High risk: differences in basleine characteristics	Low risk: low rates of missing data, 84% follow up	Unclear risk: due to the nature of the intervention	Low risk: the service was not available in areas	Low risk: all outcomes were reported	Low risk: No other risks identified. Funded by	High risk: high or unclear risk in 4 of 9 areas	High risk: only one CBA and it is at high risk of bias

	bias with those from more deprived backgrounds not being offered entry	although linear regression model used which would have corrected for baseline scores	although these were adjusted for in analysis	intervention and 96% control	n cannot blind participants and not stated how outcomes were assessed	where the control lived	NHS Scotland, no competing interests declared.		
Overall: Low risk: Evidence from two RCTs									

Physical Activity

Clarke et al, RCT, ADLs	Unclear risk- register of all >75s living alone compiled and arranged into deciles by social contact score and randomly allocated into control and experimental arms- how randomised not specified	Unclear risk- Method of randomisation not sepcified	Low risk- reported and no signficant differences in baseline outcomes	High risk- characterisitics such as age, education etc not reported, only baseline outcome measures referred to as characteristics	Low risk- similar loss to follow up in both arms, with reasons	Unclear risk- participants would be aware of their allocation, although interview assesors were blinded	Low risk- while randomised at patient level it seems very unlikely control group would have recived intervention as it was not available other than through the trial	Low risk- all outcomes reporte din baseline were reported at follow up	Low risk- pulicly funded, no competing interests declared	Low risk- while some areas unclear due to lack of reporting, unlikely to affect outcome, low risk in 5 of 9 areas

Grant et al 2000, RCT, COOP Wonca Daily Activities	Low risk: Sequenced numbered envelopes prepared by research team, block randomisation	Low risk: sealed opaque envelopes	Low risk: no important differences and baseline scores were adjusted for in analysis	low risk: control were slighlty more likely to be male and younger but otherwise comparable, this had no impact on reuslts when adjusted for in analysis	Low risk: similar amounts of missing data in both arms, at 67%, however this reduced power to detect a difference as required sample size was 161	Unclear risk: due to the nature of the intervention not possible to blind participants but assessors blinded	Unclear risk: randomisation was at the patient level within practices, unclear if it participants could self refer to the project which was running in the local area	Low risk: all outcomes were reported	Low risk: No other risks identified. Funded by Avon health autothirty, no competing interests declared.	Low risk: low risk in 7 of 9 areas	Overall RCTs:Low risk, most evidence comes from RCTs at low risk of bias
Carnes et al, 2017, CBA, Number regular activities	High risk: controlled before after study	High risk: CBA	low risk: significant differences in baseline scores, althouhg linear regression model used which would have corrected for baseline scores	High risk: significant differences in living arrangement, education, work status, adjustments for same did not significantly alter results, suggesting other unknown imbalances	High risk: control follow up 43%, int 35%, no data on whether those LTFup had different baseline characteristics	High risk: due to the nature of the intervention not possible to assess outcomes blindly and patients self reported	Low risk: the service was not available in areas where the control lived	Low risk: all outcomes were reported	Low risk: No other risks identified. Funded by DoH, independent research group, no competing interests declared.	High risk: high risk in 5 of 9 areas	

Mercer et al, 2019, CBA, Physical activity	High risk: controlled before after study	Unclear risk: practices randomly assigned but how not stated	Low risk: significant differences in baseline- explicitly corrected for in analysis	High risk: differences in baseline characteristics although these were adjusted for in analysis	Low risk: 76% follow up int, 92% control	High risk: due to the nature of the intervention not possible to assess outcomes blindly and patients self reported	Low risk: the service was not available in areas where the control lived	Low risk: all outcomes were reported	Low risk: No other risks identified. Funded by NHS Hackney CCG, no competing interests declared.	High risk: High or unclear risk in 4 of 9 areas	Overall nRCTs: High Risk: One study at very high risk of bias and one at high risk of bias
Overall: High risk due to inclusion of CBAs, without these low risk, although some concerns about allocation concealment that is inherent to the intervention											

Health Care Utilisation

Clarke et al, RCT, Primary care visits	Unclear risk- register of all >75s living alone compiled and arranged into deciles by cosial contact score and randomly allocated into control and experiment	Unclear risk- Method of randomisation not sepcified	Low risk- reported and no signficant differences in baseline outcomes	High risk- characterisitics such as age, education etc not reported, only baseline outcome measures referred to as characteristics	Low risk- similar loss to follow up in both arms, with reasons	Low risk- participants would be aware of their allocation, although interview assesors were blinded. HCU was self reported to assessors	Low risk- while randomised at patient level it seems very unlikely control group would have recived interventio n as it was not available other than	Low risk- all outcomes reporte din baseline were reported at follow up	Low risk- pulicly funded, no competing interests declared	Low risk- while some areas unclear due to lack of reporting, unlikely to affect outcome, low risk in 5 of 9 areas	

	al arms- how randomised not specified					through the trial				
Grant et al 2000, RCT, PC visits, referrals, medications	Low risk: Sequenced numbered envelopes prepared by research team, block randomisation	Low risk: sealed opaque envelopes	Low risk: no important differences and baseline scores were adjusted for in analysis	low risk: control were slighlty more likely to be male and younger but otherwise comparable, this had no impact on results when adjusted for in analysis	Low risk: similar amounts of missing data in both arms, data on HCU available for 157	Unclear risk: not reported if outcome assessors were blinded or how health care utilisation data was obtained	Unclear risk: randomisation was at the patient level within practices. GPs were more interested in social interventions	Low risk: all outcomes were reported	Low risk: No other risks identified. Funded by Avon health authority, no competing interests declared.	Low risk: low risk in 7 of 9 areas
Kangovi et al, 2018, RCT, All cause hospital admissions 9 months	Low risk: computerised generated algorithm with blocks, performed by study team member not assocaited with	Low risk: centralised randomisation scheme	Low risk: Baseline outcome measures were similar	Low risk: there were slightly more participants of hispanic ethnicity in one arm-0 vs 3.7%	Low risk: 100% data available for health care utilisation	Low risk- Hospitalisation data from routine sources and assessors/statisticians were blinded.	Low risk: randomisation was at the patient level, however unlikely they received controls received the intervention, so not a	Low risk: all outcomes are reporoted	The authors offer commerical consulting services on setting up similar CHW interventions	Low risk: low risk of bias in 7/9 areas, and other areas unlikely to have significant impact on ROB. While the paper is at risk of overly presenting

	outcomes assessment						major factor for overall ROB			positive fidnings all outcomes are reported along with statistical significance .	
Kangovi et al, 2017, RCT, SF-12, all cause hospitalisations 1 year	Low risk: conputerised generated algorithm with blocks, performed by study team member not assocaited with outcomes assessment	Low risk: centralised randomisation scheme	Low risk: Baseline outcome measures were similar	Low risk: Intervention group were more likely to be empolyed 20% vs 8%	Low risk: 100% data available for health care utilisation	Low risk- Hospitalisation data from routine sources and assessors/statisticians were blinded.	High risk: randomisation was at the patient level, however unlikely they received controls received the intervention, so not a major factor for overall ROB	Low risk: all outcomes are reporoted	The authors offer commerical consulting services on setting up similar CHW interventions	Low risk- low risk 7/9 areas and other domains such as allocation inherent to nature of intervention or contamination due to patient level randomisation	Overall RCTs: Low risk of bias
Carnes et al, 2017, CBA, PC visits	High risk: controlled before after study	High risk: CBA	High risk: significant differences in baseline scores, and controls were drawn from same practice population, but not	High risk: significant differences in living arrnagement, education, work status, adjustments for same did not	Low risk: use of anonymised GP data meant no missing data	Low risk- anonymised data frm GP records	Low risk: the service was not available in areas where the control lived	Low risk: all outcomes were reported	Low risk: No other risks identified. Funded by DoH, independent research group, no competing interests declared.	High risk: high risk in 4 of 9 areas	Overall nRCTs: High risk of bias due to control mismatch in particular

			deemed suitable for referral (different to controls for other outcomes)	significantly alter results, suggesting other unknown imbalances							
"Heisler et al, US 2022 RCT "	Low risk	Low risk	Low risk	low risk	Low risk- use of routine data	Low risk- HCU data from routine sources and statisticians blinded	Low risk- patient level randomisation	Low risk: all outcomes were reported	Low risk. No COI, variety of funding sources, but no input into conduct of study	Low risk	
Overall: Low risk of bias for RCTs, only 1 CBA at high risk											