

Supplementary file 3: Risk of Bias in the studies (Joanna Briggs Institute Critical Appraisal checklist)

Yes: means good and no risk of bias, No: means there was risk of bias, ITTA: Intention to treat analysis, IG: Intervention group, CG: control group

| | Author | Random allocation | Allocation concealment | Baseline similarity/Comparable at entry | Blinding of participants | Blinding of those delivering treatment | Blinding of outcome assessors | Identical except intervention | Relatively complete follow-up achieved | Participants analysed in the groups originally randomised | Outcomes measures same between group | Outcomes assessed in reliable way | Statistical analysis appropriate | Total YES scores |
|---|-----------------------|--|------------------------|---|--------------------------|--|---|-------------------------------|--|---|--------------------------------------|-----------------------------------|----------------------------------|------------------|
| 1 | Fortin et al 2021 | Yes | Yes | Yes | No | No | Unclear | Yes | Yes | Yes | Yes | Yes | Yes | 9/12 |
| 2 | Yu et al 2020 | Yes | Yes | No | No | No | Yes | Yes | No, 71% | Yes | Yes | Yes | Yes | 8/12 |
| 3 | de Battle, 2020 | Unclear | Unclear | No | No | Unclear | NA assessed through a web-based survey/mail | Yes | Yes, 87% | Yes, Modified ITTA | Yes | Yes | Yes | 6/12 |
| 4 | Mielenz et al 2020 | Yes | Unclear | Yes | No | No | Yes | Yes | Yes, 97% | Yes, Modified | Yes | Yes | Yes | 9/12 |
| 5 | Bergsten et al 2019 | Yes | Unclear | No | No | No | Yes | Yes | Yes, 83% | Yes | Yes | Yes | Yes | 8/12 |
| 6 | Berntsen et al (2019) | No | N/A | No | No | No | Unclear | Yes | Unclear | Yes | Yes | Yes | Yes | 5/12 |
| 7 | Berondok (2019) | Yes | Yes | Yes | No | No | Unclear | Yes | Yes, 82% | Yes, Modified ITTA | Yes | Yes | Yes | 9/12 |
| 8 | Bokberg et al (2019) | No | N/A | No | No | No | Yes | Yes | No | Yes, Modified ITTA | Yes | Yes | Yes | 6/12 |
| 9 | Britt et al (2019) | No, patients recruited at separate hospitals. Those declining participation in IG were offered inclusion in CG | No | CG were younger, more likely to be married and more likely to live at home. CG were more likely to have a cardiovascular , and less likely to have dementia as a primary diagnosis. | No | No | No | Yes | No, 51% completed 12 months | Unclear | Yes | Yes | Yes | 4/12 |

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| 10 | Hedman, et al 2019 Bertilsson et al (2016), Guidenti et al (2015) and Bertilsson et al (2014) One study reporting three papers | Unclear | Unclear | Unclear | No | No | Unclear | Yes | Yes, 81% | Yes, Modified ITTA | Yes | Yes | Yes | 6/12 |
| 11 | Ohlen et al (2019) | No | N/A | Yes | No | No | N/A | Yes | Yes, 82% | Yes, ITTA | Yes | Yes | Yes | 7/12 |
| 12 | Pirhonen et al 2019 Pirhonen et al 2016, Fors et al (2017); Fors et al (2016a) Fors et al (2016b) Wolf et al 2016 and Fors et al 2015 Seven papers one study | Yes | Yes | Yes | No | No | Not clear | Yes | Yes, 91% | Yes | Yes | Yes | Yes | 9/12 |
| 13 | Zakrisson et al (2019) | Yes | Yes | No | No | No | Yes | Yes | No | Yes | Yes | Yes | Yes | 8/12 |
| 14 | Arian et al (2018) | Yes | Unclear | Yes | No | No | Yes | Yes | No | Yes | Yes | Yes | Yes | 8/12 |

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| 15 | Eggers, 2018 | Yes | Yes | Yes | No | No | Unclear | Yes | Yes, 86% | Yes, Modified ITTA | Yes | Yes | Yes | 9/12 |
| 16 | Fors et al (2018) | Yes | Not clear | Yes | No | No | N/A: patients self-completed and sent by post | Yes | Yes, 91% | Yes | Yes | Yes | Yes | 8/12 |
| 17 | Reed et al (2018) | Yes | Yes | Yes | Yes | No | Yes | Yes | Yes, 91% | Yes | Yes | Yes | Yes | 11/12 |
| 18 | Schäfer et al (2018) | Yes | Yes | No difference in characteristics of GPs and practices between groups. More female patients in the control group. | No | No | No | Yes | Yes, 93% completed | Yes, Modified ITTA | No | Yes | Yes | 7/12 |
| 19 | Thom et al 2018 | Yes | Yes | Yes | No | No | Unclear | Yes | Yes, 82% | Yes | Yes | Yes | Yes | 9/12 |
| 20 | Armstrong et al (2017) | Unclear | Yes | Yes | No | No | Unclear | Yes | Yes, 93% | Yes | Yes | Yes | Yes | 8/12 |
| 21 | Feldthusen et al 2017 | Yes | Yes | Yes | No | Yes | Yes | Yes | Yes, 96% | Yes | Yes | Yes | Yes | 11/12 |
| 22 | Hansson et al 2017 Gyllensten et al 2019 | Yes | Yes | No | No | No | No | Yes | Yes, 92% | Yes | Yes | Yes | Yes | 8/12 |
| 23 | Ko et al (2017) | Yes | Yes | IG had higher FEV ₁ % of predicted | No | No | Yes | Yes | No, 79% | Yes | Yes | Yes | Yes | 8/12 |
| 24 | Low et al (2017) | Yes | Yes | Yes | No | No | Yes | Yes | Yes, 87% | Yes | Yes | Yes | Yes | 10/12 |
| 25 | Wichit et al (2017) | Yes | Yes | IG were older | Yes | No | Yes | Yes | Yes, 96% | Yes | Yes | Yes | Yes | 10/12 |
| 26 | Ericsson et al 2016 | Yes | Yes | Yes | No | No | Yes | Yes | No, 70% | Yes, ITTA | Yes | Yes | Yes | 9/12 |

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| | Larsson et al 2015 Two papers one study | | | | | | | | | | | | | |
| 27 | Hansson et al 2016; Ulin et al 2016; Ekman et al (2012) and Dudas et al 2012 Four papers one study | No | N/A | No | No | No | Unclear | Yes | Yes, 80% | Yes, ITTA | Yes | Yes | Yes | 6/12 |
| 28 | Jutterström et al (2016) | Yes | Yes | No, Greater numbers in the Group intervention group. Group intervention had greater HbA1c than External control group, and lower total cholesterol than internal control. External control group were more likely to have diet and/or insulin treatment | No | No | No | Yes | Yes, 88% | Yes, Modified ITTA | Yes | Yes | Yes | 8/12 |
| 29 | Olsson et al 2016 and | No | N/A | No | No | No | Unclear | Yes | Yes, 99% | Yes | Yes | Yes | Yes | 6/12 |

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| | Olsson et al 2014 Two papers one study | | | | | | | | | | | | | |
| 30 | Or and Tao (2016) | Yes | Yes | Yes | No | No | No | Yes | Yes, 87% | Yes, Modified ITTA | No, IG self monitoring data captured on a tablet, CG from log book records. | Yes | Yes | 8/12 |
| 31 | Sahlen et al (2016); Brännstrom & Boman (2014) One study two papers | Unclear | Unclear | IG older | No | No | Unclear | Yes | Yes, 83% | Yes, Modified ITTA | Yes | Yes | Yes | 6/12 |
| 32 | Slok et al (2016) | Yes | Yes | IG more likely to be a current smoker | No | No | No | Yes | Yes, 82% | Yes, Modified ITTA | Yes | Yes | Yes | 8/12 |
| 33 | Windrum et al (2016) | Unclear | Unclear | Yes | No | Yes | Unclear | Yes | Unclear | Unclear | Unclear | Unclear | Yes | 4/12 |
| 34 | Yu (2016) | Yes | Unclear | Yes | No | No | Yes | Yes | Yes | Yes, Modified ITTA | Yes | Yes | Yes | 9/12 |
| 35 | Hernández et al (2015) | Yes | Yes | CG more likely to have had influenza and pneumococcal vaccines | No | No | Yes | Yes | No, 71% | Yes, Modified ITTA | Yes | Yes | Yes | 8/12 |
| 36 | Kikkenborg et al (2015) | Unclear | Unclear | Yes | No | No | Yes | Yes | Yes, 84% | Yes, Modified ITTA | Yes | Yes | Yes | 8/12 |

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| 37 | Larsson et al (2015) and 2013 One study two papers | Yes | Yes | Yes | No | No | No | Yes | Yes | Yes | Yes | Yes | Yes | 9/12 |
| 38 | Lowther et al (2015) | Yes | Yes | CG had been diagnosed with HIV for longer and been taking ART for longer than IG. | No | No | No | Yes | Yes, 95% | Yes, Modified ITTA | Yes | Yes | Yes | 8/12 |
| 39 | Kelechi et al (2014) | Yes | Not clear | Greater motivation in IG Patient baseline demographic characteristics not reported by group | No | No | Not clear | Yes | Yes, 88% | Yes, Modified ITTA | Yes | Not stated | Yes | 6/12 |
| 40 | Young et al (2013) | Yes | Yes | IG more likely to have private health insurance, were admitted to a private hospital and had a stoma created. | No | No | Unclear | Yes | Yes, 88% | Yes, Modified ITTA | Yes | Yes | Yes | 8/12 |
| 41 | Chochinov et al (2011) | Yes | Yes | Yes | No | No | Yes | Yes | No, 74% | Yes, Modified ITTA | Yes | Unclear | Yes | 8/12 |
| 42 | Goelz et al (2011) | Yes | Yes | No | No | Unclear | Unclear | Yes | Yes | Yes | Yes | Yes | Yes | 8/12 |
| 43 | Murphy et al (2010) | Yes | Unclear | Yes | No | No | Yes | Yes | No, 74% | Yes, Modified ITTA | Yes | Unclear | Yes | 7/12 |
| 44 | Wolff et al (2010) | Unclear, Cluster | Unclear | CG more likely to be female | Unclear | No | Yes | Yes | No, 69% of patients and | Yes, Modified ITTA | Yes | Yes | Yes | 6/12 |

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| | | randomization | | and less educated | | | | | 64% of caregivers | | | | | |
| 45 | Dobscha et al (2009) | Unclear | Yes | Yes | Yes | Yes | Yes | Yes | Yes, 90% | Yes, ITTA | Yes | Yes | Yes | 11/12 |
| 46 | Machado et al (2007) | Yes | Yes | IG had longer duration of symptoms, more likely to be female and more likely to not be working due to lower back pain | No | No | Yes | Yes | Yes, 81% | Yes, Modified ITTA | Yes | Yes | Yes | 9/12 |
| 47 | Glasgow et al 2005 | Yes | Yes | Yes | No | No | unclear | Yes | Yes, 83% | Yes | Yes | Yes | Yes | 9/12 |
| 48 | Mills and Harvey (2003) | Unclear | Unclear | No | No | No | Unclear | Yes | No | Yes, modified ITTA | Yes | Yes | Yes | 5/12 |
| 49 | Kennedy et al (2004) | Unclear | Unclear | IG more likely to be off work with long term sickness | No | No | Unclear | Differences in discharge policies between centres. | Yes, 87% | Yes, ITTA | Yes | Unclear | Yes | 4/12 |
| 50 | Martin et al, (2004), | Unclear | Unclear | CG were more likely to be male and have greater cigarette consumption. | No | No | Unclear | Yes | Yes, 83% | Yes, Modified ITTA | Yes | Yes | Yes | 6/12 |
| 51 | Alamo et al (2002) | Unclear | Unclear | IG more tender points and more likely to describe pain as never/hardly ever a problem. | No | No | Yes | Yes | No, 74% | Yes | Yes | Yes | Yes | 6/12 |
| 52 | Sommers et al (2000) | Yes | Unclear | No | No | No | Unclear | Yes | No | Yes, Modified ITTA | Yes | Yes | Yes | 6/12 |

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| 53 | Gustafson et al (1994) | Yes | Yes | Yes | No | No | Unclear | Yes | Yes, 84% | Yes, Modified ITTA | Yes | Unclear | Yes | 8/12 |
| 54 | Kinmonth et al (1998) | Yes | Yes | Yes | Unclear | No | Unclear | Yes | No, 69% | Yes, Modified ITTA | Yes | Yes | Yes | 8/12 |
| 55 | Landefeld et al 1995 | Yes | Unclear | Yes | No | No | No | Yes | Yes | Yes, Modified ITTA | Yes | Yes | Yes | 8/12 |