**Supplemental Digital Content 4: Qualitative assessment randomized controlled trials**

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|  | **Domain 1: Risk of bias arising from the randomization process** | | **Domain 2a: Risk of bias due to deviations from the intended interventions** | | **Domain 2b: Risk of bias due to deviations from the intended interventions** | | **Domain 3: Missing outcome data** | | **Domain 4: Risk of bias in measurement of the outcome** | | **Domain 5: Risk of bias in selection of the reported result** | |  |
| **Study** | **Level of bias** | **Description of bias** | **Level of bias** | **Description of bias** | **Level of bias** | **Description of bias** | **Level of bias** | **Description of bias** | **Level of bias** | **Description of bias** | **Level of bias** | **Description of bias** | **Overall level of bias** |
| Leung et al (2013)18 | Low | Randomization through computerised dial-up system, concealed allocation, blinded outcome assessment, no significant differences between groups at baseline | Low | Participants and people involved in intervention were not blinded. No deviations from intended interventions. An appropriate analysis was used to estimate the effect of assignment to intervention | Low | Adherence was good, no co-interventions | Low | Drop-out <15% used in sample size calculation | Low | Outcomes appropriate. Blinded outcome assessment | Low | Planned analysis performed. No multiple outcome measurements of multiple analyses expected | Low |
| Mekki et al (2019)21 | Low | Randomization using a computer-generated random number schedule with variable block sizes of two to six, concealed allocation, no significant differences between groups at baseline | Low | Participants and people involved in the intervention were not blinded. No deviations from intended interventions. An appropriate analysis was used to estimate the effect of assignment to intervention | Low | Adherence was good, co-intervention was balanced among both groups | Low | No drop-out during intervention | Some con-cerns | Outcomes appropriate. Outcome assessor was not blinded, but was independent of the treating rehabilitation team | Low | Planned analysis performed. No multiple outcome measurements of multiple analyses expected | Some concerns, unblinded outcome assessor |
| Mkacher et al (2015)11 | Some con-cerns | Randomization group using a computer-generated randomization list. No info on concealment of allocation sequence | Low | Participants and people involved in the intervention were probably aware of assigned intervention. No deviations from intended interventions. An appropriate analysis was used to estimate the effect of assignment to intervention | Low | Adherence was good, co-interventions were balanced among both groups | Low | No drop-outs | Some con-cerns | Outcomes appropriate. No information on blinding of outcome assessors, this might have influenced the results. | Low | Planned analysis performed. No multiple outcome measurements of multiple analyses expected | High, concealment of allocation sequence and blinding of outcome assessors is unclear |
| Gloeckl et al (2017)20 | Low | Block-randomization, allocation list at third-party person, only one significant difference in baseline measures which is not unusual and this is not the primary outcome | Low | Blinding of study participants was not possible within the study setting due to the nature of the intervention. No deviations from intended interventions. An appropriate analysis was used to estimate the effect of assignment to intervention | Low | Adherence was good, co-interventions were balanced among both groups | Low | Drop-out 15%, considering population this is to be expected | Low | Outcomes appropriate. Investigators who performed pre and post intervention assessment were blinded to group allocation | Low | Planned analysis performed. No multiple outcome measurements of multiple analyses expected | Low |
| Marques et al (2015)27 | Low | Block-randomization using a computer-generated randomization list, opaque envelopes kept by researcher not involved in data collection, no significant differences between groups at baseline except for marital status of family members | Low | Participants were not aware of the intervention, people delivering the intervention were aware. | Low | Adherence was good and similar in both groups, no deviations from the intended intervention | Low | Drop-out 25%,. Sufficient sample size according to power calculation. | Some con-cerns | Outcomes appropriate. Impossible for outcome assessors to be blinded | Low | Planned analysis performed. No multiple outcome measurements of multiple analyses expected | Some concerns, unblinded outcome assessors |
| Beauchamp et al (2013- RCT)12 | Low | Block-randomization using a computer-generated list, opaque envelopes kept by researcher not involved in data collection, no significant differences between groups at baseline | Low | Patients were not informed of their treatment allocation. People delivering the intervention were. No deviations from intervention. Appropriate analysis used to estimate the effect of assignment to intervention | Low | Adherence was good, co-interventions were balanced among both groups | Low | Drop-out 8%, considering population this is to be expected | Low | Outcome appropriate. Blinded assessors | Low | Planned analysis performed. No multiple outcome measurements of multiple analyses expected | Low |