JBI Critical Appraisal Checklist for Analytical Cross-sectional Studies

|  | **Celik (2019)** | **Muguruma (2019)** | **Burke (2014)** | **Chang (2016)** | **Gross (2018)** | **Wetta-Hall (2007)** | **Bank (2016)** | **Ashkenazi (2016)** | **McGlynn (2020)** | **Koziel (2014)** | **Chou (2019)** | **Cicero (2014)** | **Cicero (2016)** | **Claudius (2015a)** | **Claudius**  **(2015b)** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Were the criteria for inclusion in the sample clearly defined? | N | Y | Y | Y | U | U | Y | Y | Y | Y | Y | Y | Y | Y | Y |
| Were the study subjects and the setting described in detail? | Y | Y | Y | Y | U | Y | U | Y | Y | Y | Y | Y | Y | U | U |
| Was the exposure measured in a valid and reliable way? | Y | Y | Y | Y | Y | Y | Y | Y | Y | N | Y | U | Y | Y | Y |
| Were objective, standard criteria used for measurement of the condition? | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y |
| Were confounding factors identified? | NA | NA | NA | NA | NA | NA | NA | Y | Y | Y | Y | Y | Y | Y | NA |
| Were strategies to deal with confounding factors stated? | NA | NA | NA | NA | NA | NA | NA | Y | N | N | U | N | Y | N | NA |
| Were the outcomes measured in a valid and reliable way? | Y | U | Y | Y | Y | Y | N | Y | Y | N | N | Y | Y | Y | N |
| Was appropriate statistical analysis used? | Y | Y | Y | Y | U | Y | Y | Y | Y | N | Y | Y | Y | Y | Y |
| Risk of Bias (%) | 83,33% | 83,33% | 100% | 100% | 50% | 83,33% | 66,67% | 100% | 87,5% | 50% | 75% | 75% | 100% | 75% | 66,67% |

Y= Yes; N = No; U = Unclear; NA = Not applicable

JBI Critical Appraisal Checklist for Cohort Studies

|  | **Timm**  **(2008)** | **Cross**  **(2012)** | **Toida**  **(2018)** |
| --- | --- | --- | --- |
| Were the two groups similar and recruited from the same population? | Y | N | Y |
| Were the exposures measured similarly to assign people to both exposed and unexposed groups? | Y | Y | NA |
| Was the exposure measured in a valid and reliable way? | Y | Y | Y |
| Were confounding factors identified? | NA | N | U |
| Were strategies to deal with confounding factors stated? | NA | N | N |
| Were the groups/participants free of the outcome at the start of the study (or at the moment of exposure)? | U | NA | Y |
| Were the outcomes measured in a valid and reliable way? | Y | Y | Y |
| Was the follow up time reported and sufficient to be long enough for outcomes to occur? | Y | Y | Y |
| Was follow up complete, and if not, were the reasons to loss to follow up described and explored? | Y | Y | Y |
| Were strategies to address incomplete follow up utilized? | NA | NA | NA |
| Was appropriate statistical analysis used? | Y | Y | Y |
| Risk of Bias (%) | 87,50% | 66,66% | 77,78% |

Y= Yes; N = No; U = Unclear; NA = Not applicable

JBI Critical Appraisal Checklist for Quasi-Experimental Study

|  | **Claudius (2008)** |
| --- | --- |
| Is it clear in the study what is the ‘cause’ and what is the ‘effect’ (i.e. there is no confusion about which variable comes first)? | Y |
| Were the participants included in any comparisons similar? | Y |
| Were the participants included in any comparisons receiving similar treatment/care, other than the exposure or intervention of interest? | NA |
| Was there a control group? | Y |
| Were there multiple measurements of the outcome both pre and post the intervention/exposure? | N |
| Was follow up complete and if not, were differences between groups in terms of their follow up adequately described and analyzed? | Y |
| Were the outcomes of participants included in any comparisons measured in the same way? | Y |
| Were outcomes measured in a reliable way? | Y |
| Was appropriate statistical analysis used? | Y |
| Risk of Bias (%) | 87,50% |

Y= Yes; N = No; U = Unclear; NA = Not applicable

JBI Critical Appraisal Checklist for Randomized Controlled Trials

|  | **Homier (2018)** | **Jones (2014)** |
| --- | --- | --- |
| Was true randomization used for assignment of participants to treatment groups? | Y | Y |
| Was allocation to treatment groups concealed? | U | U |
| Were treatment groups similar at the baseline? | Y | Y |
| Were participants blind to treatment assignment? | Y | N |
| Were those delivering treatment blind to treatment assignment? | Y | NA |
| Were outcomes assessors blind to treatment assignment? | U | Y |
| Were treatment groups treated identically other than the intervention of interest? | Y | Y |
| Was follow up complete and if not, were differences between groups in terms of their follow up adequately described and analyzed? | Y | Y |
| Were participants analyzed in the groups to which they were randomized? | Y | Y |
| Were outcomes measured in the same way for treatment groups? | Y | Y |
| Were outcomes measured in a reliable way? | Y | N |
| Was appropriate statistical analysis used? | Y | Y |
| Was the trial design appropriate, and any deviations from the standard RCT design (individual randomization, parallel groups) accounted for in the conduct and analysis of the trial? | Y | Y |
| Risk of Bias (%) | 84,61% | 75% |

Y= Yes; N = No; U = Unclear; NA = Not applicable