

**Multimedia Appendix 2: Quality assessment tool for quantitative studies<sup>a</sup>**

| No                                 | Questions                                                                                                                                     | Murray, et al. [15] | Chung [24] | Hay, et al. [28] | Newnham, et al. [29] | Russ, et al. [31] | Ybarra and Suman [32] | AlGhamdi and Moussa | Bianco, et al. [34] |
|------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|---------------------|------------|------------------|----------------------|-------------------|-----------------------|---------------------|---------------------|
| <b>Objectives</b>                  |                                                                                                                                               |                     |            |                  |                      |                   |                       |                     |                     |
| 1                                  | Was the research question or objective in this paper clearly stated?                                                                          | 1                   | 1          | 1                | 1                    | 1                 | 1                     | 1                   | 1                   |
| 2                                  | Was the study population clearly specified and defined?                                                                                       | 1                   | 1          | 1                | 1                    | 1                 | 1                     | 1                   | 1                   |
| <b>Sample selection and method</b> |                                                                                                                                               |                     |            |                  |                      |                   |                       |                     |                     |
| 3                                  | Was the participation rate of eligible persons at least 50%?                                                                                  | 1                   | 2          | 1                | 1                    | 1                 | 2                     | 1                   | 1                   |
| 4                                  | Sampling method: Was it representative of the population intended in the study?                                                               | 1                   | 1          | 1                | 1                    | 1                 | 1                     | 1                   | 1                   |
| 5                                  | Was a sample size justification, power description, or variance and effect estimates provided?                                                | 1                   | 1          | 0                | 0                    | 1                 | 0                     | 0                   | 1                   |
| 6                                  | Was the study design appropriate for the research question?                                                                                   | 1                   | 1          | 1                | 1                    | 1                 | 1                     | 1                   | 1                   |
| 8                                  | Was it a primary or secondary data source?[yes = primary, no = secondary]                                                                     | 1                   | 0          | 1                | 1                    | 1                 | 0                     | 1                   | 1                   |
| 9                                  | Does the study test a stated hypothesis?                                                                                                      | 0                   | 0          | 0                | 0                    | 0                 | 0                     | 0                   | 0                   |
| <b>Design and Results</b>          |                                                                                                                                               |                     |            |                  |                      |                   |                       |                     |                     |
| 10                                 | Were the independent variables clearly defined, valid, reliable, and implemented consistently across all study participants?                  | 1                   | 1          | 1                | 2                    | 1                 | 1                     | 1                   | 1                   |
| 11                                 | Were the outcome measures (dependent variables) clearly defined, valid, reliable, and implemented consistently across all study participants? | 1                   | 1          | 1                | 2                    | 1                 | 1                     | 1                   | 1                   |
| 12                                 | Were the statistical analyses performed correctly?                                                                                            | 1                   | 1          | 1                | 1                    | 1                 | 1                     | 1                   | 1                   |
| 13                                 | Do the data justify the conclusions?                                                                                                          | 1                   | 1          | 1                | 1                    | 1                 | 1                     | 1                   | 1                   |
| <b>Outcomes of the research</b>    |                                                                                                                                               |                     |            |                  |                      |                   |                       |                     |                     |
| 14i                                | Researcher(s) have discussed the contribution of the study to the existing knowledge or understanding:                                        | 1                   | 1          | 1                | 1                    | 1                 | 1                     | 1                   | 1                   |
| 14ii                               | Researcher(s) have identified new areas where research is necessary:                                                                          | 0                   | 1          | 0                | 1                    | 0                 | 1                     | 0                   | 1                   |

|           |                                                                                                                                            |      |      |      |      |      |      |      |      |
|-----------|--------------------------------------------------------------------------------------------------------------------------------------------|------|------|------|------|------|------|------|------|
| 14ii<br>i | Paper has addressed whether or how the findings can be transferred to other populations or considered other ways the research may be used: | 0    | 1    | 1    | 0    | 1    | 1    | 1    | 1    |
|           | <b>Quality score<sup>b</sup></b>                                                                                                           | 0.80 | 0.86 | 0.80 | 0.77 | 0.87 | 0.79 | 0.80 | 0.93 |

a: The results presented in the table are after resolving the disagreements between two researchers

b: Yes = 1, No = 0, Not available = 0, and Not relevant = 2, the total score was calculated based on the proportion of 'Yes', after omitting 'Not Relevant' questions