**Additional File X**

**EPHPP Quality Assessment Tool for Quantitative Studies**

**A - REPRESENTATIVENESS - SELECTION BIAS**

(**Q1**) Is the spectrum of individuals selected to participate likely to be representative of the wider population who experience the intervention/exposure/situation?

1. Very likely
2. Somewhat likely
3. Not likely (selected group of users e.g., volunteers)
4. Can´t tell\*

(**Q2**) What percentage of the selected participants agreed to participate?

1. 80-100% agreement
2. 60-79% agreement
3. Less than 60% agreement
4. Not applicable
5. Can’t tell

**Rating: Strong:** 1 **/ Moderate:** 2  **/ Weak:** 3

**B - STUDY DESIGN**

(**Q1**) The study design is:

* 1. Randomized controlled trial
  2. Controlled clinical trial
  3. Cohort analytic (two group pre + post)
  4. Case-control
  5. Cohort (one group pre + post (before and after))
  6. Interrupted time series
  7. Other specify \_\_\_\_\_\_\_\_\_\_
  8. Can’t tell

(**Q2**) Was the study described as randomized? If NO, go to Component C.

1. Yes
2. No

(**Q3**) If Yes, was the method of randomization described?

1. Yes
2. No

(**Q4**) If Yes, was the method appropriate?

1. Yes
2. No

**Rating: Strong:** 1 **/ Moderate:** 2  **/ Weak:** 3

**C - CONFOUNDERS**

**(Q1)** Were there important differences between groups prior to the intervention?

* + - 1. Yes
      2. No
      3. Can’t tell

**The following are examples of confounders:**

1. Race
2. Sex
3. Marital status/family
4. Age
5. SES (income or class)
6. Education
7. Health status
8. Pre-intervention score on outcome measure

(**Q2**) Were analyses appropriately adjusted for confounders? If yes, indicate the percentage of relevant confounders that were controlled (either in the design (e.g. stratification, matching) or analysis)?

1. 80-100% (most confounders)
2. 60-79% (some confounders)
3. Less than 60% (few or none)
4. Can’t tell

**Rating: Strong:** 1 **/ Moderate:** 2  **/ Weak:** 3

**D - BLINDING**

(**Q1**) Was (were) the intervention or exposure status of participants concealed from the outcome assessors?

1. Yes
2. No
3. Can’t tell
4. Not applicable (if using an existing database and referring to design article\*)

(**Q2**) Was the intervention assignment concealed from participants and care givers until recruitment was completed?

1. Yes
2. No
3. Can’t tell
4. Not applicable (if using an existing database and referring to design article\*)

**Rating: Strong:** 1 **/ Moderate:** 2  **/ Weak:** 3

*\* If the study is using data from a large existing database such as HSE, NHANES, BRFSS, etc., often the authors refer to the design paper of the original study and no information in the present article is being described about power calculations, validity of tools, intervention description, etc.*

**E - DATA COLLECTION**

**(Q1)** Were data collection tools shown to be valid?

1. Yes
2. No
3. Can’t tell

**(Q2)** Were data collection tools shown to be reliable?

1. Yes
2. No
3. Can’t tell

**Rating: Strong:** 1 **/ Moderate:** 2  **/ Weak:** 3

**REPRESENTATIVENESS - WITHDRAWALS AND DROP-OUTS**

(**Q1**) Were withdrawals and drop-outs reported in terms of numbers and reasons per group?

1. Yes
2. No
3. Can’t tell
4. Not applicable (if cross-sectional data or if using an existing database and authors refer to design article)

(**Q2**) What was the loss to follow-up (report the percentage completing the study and if it differs by groups, record the lowest)?

1. 80 -100%
2. 60 - 79%
3. Less than 60%
4. Can’t tell
5. Not Applicable (i.e. Retrospective case-control)

**Rating: Strong:** 1 **/ Moderate:** 2  **/ Weak:** 3

**COMPONENT RATINGS OF STUDY:**

For each of the six components A – F, use the following descriptions as a roadmap.

**A - REPRESENTATIVENESS - SELECTION BIAS**

* **Strong:** The selected individuals are very likely to be representative of the target population (Q1 is 1) **and** there is greater than 80% participation (Q2 is 1).
* **Moderate:** The selected individuals are at least somewhat likely to be representative of the target population (Q1 is 1 or 2); **and** there is 60 - 79% participation (Q2 is 2). ‘Moderate’ may also be assigned if Q1 is 1 or 2 and Q2 is 5 (can’t tell).
* **Weak:** The selected individuals are not likely to be representative of the target population (Q1 is 3); **or** there is less than 60% participation (Q2 is 3) **or** selection is not described (Q1 is 4); and the level of participation is not described (Q2 is 5).

**B - STUDY DESIGN - a rating of:**

* **Strong:** will be assigned to those articles that described RCTs and CCTs.
* **Moderate:** will be assigned to those that described a cohort analytic study, a case control study, a cohort design, or an interrupted time series.
* **Weak:** will be assigned to those that used any other method or did not state the method used.

**C - CONFOUNDERS**  **- a rating of:**

* **Strong:** will be assigned to those articles that controlled for at least 80% of relevant confounders (Q1 is 2) **or** (Q2 is 1).
* **Moderate:** will be given to those studies that controlled for 60–79% of relevant confounders (Q1 is 1) **and** (Q2 is 2).
* **Weak:** will be assigned when less than 60% of relevant confounders were controlled (Q1 is 1) **and** (Q2 is 3) **or** control of confounders was not described (Q1 is 3) **and** (Q2 is 4).

**D - BLINDING**

* **Strong:** The outcome assessor is not aware of the intervention status of participants (Q1 is 2); **and** the study participants and caregivers are not aware of the research question (Q2 is 2).
* **Moderate:** The outcome assessor is not aware of the intervention status of participants (Q1 is 2); **or** the study participants and caregivers are not aware of the research question (Q2 is 2); **or** blinding is not described (Q1 is 3 and Q2 is 3).
* **Weak:** The outcome assessor is aware of the intervention status of participants (Q1 is 1) **and** the study participants and caregivers are aware of the research question (Q2 is 1).

**E - DATA COLLECTION**

* **Strong:** The data collection tools have been shown to be valid (Q1 is 1) **and** the data collection tools have been  shown to be reliable (Q2 is 1).
* **Moderate:** The data collection tools have been shown to be valid (Q1 is 1) **and** the data collection tools have not  been shown to be reliable (Q2 is 2) **or** reliability is not described (Q2 is 3).
* **Weak:** The data collection tools have not been shown to be valid (Q1 is 2) **or** both reliability and validity described (Q1 is 3 and Q2 is 3).

**F - WITHDRAWALS AND DROP-OUTS - a rating of:**

* **Strong:** will be assigned when the follow-up rate is 80% or greater (Q2 is 1).
* **Moderate:** will be assigned when the follow-up rate is 60 - 79% (Q2 is 2) **OR** Q2 is 5 (N/A).
* **Weak:** will be assigned when a follow-up rate is less than 60% (Q2 is 3) or if the withdrawals and drop-outs were not described (Q2 is 4).

**OVERALL RATING**

* **Strong:** will be attributed to those with no WEAK ratings and at least three STRONG ratings.
* **Moderate:** will be given to those with one WEAK rating or fewer than three STRONG ratings.
* **Weak** will be attributed to those with two or more WEAK ratings.