

**Supplementary File S1: NEWCASTLE - OTTAWA QUALITY  
ASSESSMENT SCALE CASE CONTROL STUDIES**

Note: A study can be awarded a maximum of one star for each numbered item within the Selection and Exposure categories. A maximum of two stars can be given for Comparability.

**Selection**

- 1) Is the case definition adequate?
  - a) yes, with independent validation ✳
  - b) yes, eg record linkage or based on self reports
  - c) no description
- 2) Representativeness of the cases
  - a) consecutive or obviously representative series of cases ✳
  - b) potential for selection biases or not stated
- 3) Selection of Controls
  - a) community controls ✳
  - b) hospital controls
  - c) no description
- 4) Definition of Controls
  - a) no history of disease (endpoint) ✳
  - b) no description of source

**Comparability**

- 1) Comparability of cases and controls on the basis of the design or analysis
  - a) study controls for \_\_\_\_\_ (Select the most important factor.) ✳
  - b) study controls for any additional factor ✳ (This criteria could be modified to indicate specific control for a second important factor.)

**Exposure**

- 1) Ascertainment of exposure
  - a) secure record (eg surgical records) ✳
  - b) structured interview where blind to case/control status ✳
  - c) interview not blinded to case/control status
  - d) written self report or medical record only
  - e) no description
- 2) Same method of ascertainment for cases and controls
  - a) yes ✳
  - b) no
- 3) Non-Response rate
  - a) same rate for both groups ✳
  - b) non respondents described
  - c) rate different and no designation

## NEWCASTLE - OTTAWA QUALITY ASSESSMENT SCALE COHORT STUDIES

Note: A study can be awarded a maximum of one star for each numbered item within the Selection and Outcome categories. A maximum of two stars can be given for Comparability

### Selection

- 1) Representativeness of the exposed cohort
  - a) truly representative of the average \_\_\_\_\_ (describe) in the community ✱
  - b) somewhat representative of the average \_\_\_\_\_ in the community ✱
  - c) selected group of users eg nurses, volunteers
  - d) no description of the derivation of the cohort
- 2) Selection of the non exposed cohort
  - a) drawn from the same community as the exposed cohort ✱
  - b) drawn from a different source
  - c) no description of the derivation of the non exposed cohort
- 3) Ascertainment of exposure
  - a) secure record (eg surgical records) ✱
  - b) structured interview ✱
  - c) written self report
  - d) no description
- 4) Demonstration that outcome of interest was not present at start of study
  - a) yes ✱
  - b) no

### Comparability

- 1) Comparability of cohorts on the basis of the design or analysis
  - a) study controls for \_\_\_\_\_ (select the most important factor) ✱
  - b) study controls for any additional factor ✱ (This criteria could be modified to indicate specific control for a second important factor.)

### Outcome

- 1) Assessment of outcome
  - a) independent blind assessment ✱
  - b) record linkage ✱
  - c) self report
  - d) no description
- 2) Was follow-up long enough for outcomes to occur
  - a) yes (select an adequate follow up period for outcome of interest) ✱
  - b) no
- 3) Adequacy of follow up of cohorts
  - a) complete follow up - all subjects accounted for ✱
  - b) subjects lost to follow up unlikely to introduce bias - small number lost - > \_\_\_\_ % (select an adequate %) follow up, or description provided of those lost) ✱
  - c) follow up rate < \_\_\_\_% (select an adequate %) and no description of those lost
  - d) no statement

## Newcastle-Ottawa Scale adapted for cross-sectional studies

### Selection: (Maximum 5 stars)

- 1) Representativeness of the sample:
  - a) Truly representative of the average in the target population. \* (all subjects or random sampling)
  - b) Somewhat representative of the average in the target population. \* (non-random sampling)
  - c) Selected group of users.
  - d) No description of the sampling strategy.
- 2) Sample size:
  - a) Justified and satisfactory. \*
  - b) Not justified.
- 3) Non-respondents:
  - a) Comparability between respondents and non-respondents characteristics is established, and the response rate is satisfactory. \*
  - b) The response rate is unsatisfactory, or the comparability between respondents and non-respondents is unsatisfactory.
  - c) No description of the response rate or the characteristics of the responders and the non-responders.
- 4) Ascertainment of the exposure (risk factor):
  - a) Validated measurement tool. \*\*
  - b) Non-validated measurement tool, but the tool is available or described.\*
  - c) No description of the measurement tool.

### Comparability: (Maximum 2 stars)

- 1) The subjects in different outcome groups are comparable, based on the study design or analysis. Confounding factors are controlled.
  - a) The study controls for the most important factor (select one). \*
  - b) The study control for any additional factor. \*

### Outcome: (Maximum 3 stars)

- 1) Assessment of the outcome:
  - a) Independent blind assessment. \*\*
  - b) Record linkage. \*\*
  - c) Self report. \*
  - d) No description.
- 2) Statistical test:
  - a) The statistical test used to analyze the data is clearly described and appropriate, and the measurement of the association is presented, including confidence intervals and the probability level (p value). \*
  - b) The statistical test is not appropriate, not described or incomplete.

This scale has been adapted from the Newcastle-Ottawa Quality Assessment Scale for cohort studies to perform a quality assessment of cross-sectional studies for the systematic review, "**Bullying and health related quality of life among adolescents- a systematic review**".

## NEWCASTLE - OTTAWA QUALITY ASSESSMENT SCALE: RANDOMIZED CONTROLLED TRIAL

*Note: A study can be awarded a maximum of one star (\*) for each numbered item within the Selection and Exposure categories. A maximum of two stars can be given for Comparability.*

### Selection

- 1) Is the case definition adequate?
  - a) yes, with independent validation \*
  - b) yes, e.g., record linkage or based on self reports
  - c) no description
- 2) Representativeness of the cases
  - a) consecutive or obviously representative series of cases \*
  - b) potential for selection biases or not stated
- 3) Selection of Controls
  - a) community controls \*
  - b) hospital controls
  - c) no description
- 4) Definition of Controls
  - a) no history of disease (endpoint) \*
  - b) no description of source

### Comparability

- 1) Comparability of cases and controls on the basis of the design or analysis
  - a) study controls for \_\_\_\_\_ (Select the most important factor.) \*
  - b) study controls for any additional factor \* (This criteria could be modified to indicate specific control for a second important factor.)

### Exposure

- 1) Ascertainment of exposure
  - a) secure record (eg surgical records) \*
  - b) structured interview where blind to case/control status \*
  - c) interview not blinded to case/control status
  - d) written self report or medical record only
  - e) no description
- 2) Same method of ascertainment for cases and controls
  - a) yes \*
  - b) no
- 3) Non-Response rate
  - a) same rate for both groups \*
  - b) non respondents described
  - c) rate different and no designation

Supplementary File S2:

**Thresholds for converting the Newcastle-Ottawa scales to AHRQ standards (good, fair, and poor):**

**Good quality:** 3 or 4 stars in selection domain AND 1 or 2 stars in comparability domain AND 2 or 3 stars in outcome/exposure domain

**Fair quality:** 2 stars in selection domain AND 1 or 2 stars in comparability domain AND 2 or 3 stars in outcome/exposure domain

**Poor quality:** 0 or 1 star in selection domain OR 0 stars in comparability domain OR 0 or 1 stars in outcome/exposure domain