

Appendix B The adapted Quality Assessment Tool for Quantitative Studies (QATQS)

Section A -Selection Bias (paper level)

Q1. Are the individuals selected to participate in the study likely to be representative of the target population ?

1. Very likely
2. Somewhat likely
3. Not likely (selected group of users e.g., volunteers)
4. Can't tell (no information provided)
5. Not applicable (using an existing database and authors refer to design article)

Q2 What percentage of selected individuals agreed to participate?

1. 80 - 100% agreement
2. 60 – 79% agreement
3. less than 60% agreement
4. Can't tell
5. Not applicable

Rating selection bias:

Strong: Q1 is 1 and Q2 is 1.

Moderate: Q1 is 1 or 2 and Q2 is 1 or 2. Q1 is 1 or 2 and Q2 is 4. Q1 is 5 and Q2 is 1 or 2.

Weak: Q1 is 3. Q2 is 3. Q1 is 4. Q2 is 4.

No rating: Q1 is 5 and Q2 is 5.

Section B – Study Design (paper level)

Q3. The study design is:

1. Experimental
 - Individual-randomised
 - Group-randomised
 - Non-randomised
2. Observational
 - Cross-sectional
 - Longitudinal (also natural experiment or pre-post tests)
 - Case-control
3. Any other method or did not state method (i.e. pre-post test without control group)

Q4. Was the study described as randomized? →

1. Yes – proceed
2. No – go to question 9

Q5 Was the method of randomization described?

1. Yes
2. No

Q6 Was the method appropriate?

1. Yes
2. No

Q7 Was (were) the outcome assessor(s) aware of the intervention or exposure status of participants?

1. Yes
2. No
3. Can't tell

Q8 Were the study participants aware of the research question?

1. Yes
2. No
3. Can't tell

Rating study design

Strong: Q3 is 1.

Moderate: Q3 is 2.

Weak: Q3 is 3.

Rating blinding

Strong: Q4 and Q5 are 2.

Moderate: Q4 is 2. Q5 is 2. Q4 and Q5 are 3.

Weak: Q4 or Q5 are 1

Section C – confounding

Q8 Were analyses appropriately adjusted for confounders? (the table in which information for our research question is presented)

1. For most confounders (meaning at least age and sex and/or education and/or SES)
2. For some confounders (meaning at least two of the following: age, sex, education or SES)
3. No or can't tell

Rating confounding

Strong: Q8 is 1.

Moderate: Q8 is 2.

Weak: Q8 is 3.

Section D – Blinding

This section is incorporated in section B *study design* as these questions are only applicable for intervention studies (Q7 and Q8).

Section E – Data collection (paper level)

The following question is only applicable if blood was collected.

Q9 Were the participants fasting before the blood sample was taken?

1. Yes
2. No
3. Can't tell

Rating Data collection

Strong: Q9 is 1.

Moderate: Q9 is 2.

Weak: Q9 is 3.

Section F – Representativeness (withdrawals and drop-outs) (paper level)

Q10 Were withdrawals and drop-outs reported in terms of numbers and reasons per group?

1. Numbers and reasons provided
2. Numbers but no reasons provided
3. Can't tell (if longitudinal data)
4. Not applicable (if cross-sectional data or if using an existing database and authors refer to design article)

If Q10 is 1 or 2, proceed to Q11. Otherwise, proceed to Q12.

Q11 What was the loss to follow-up/percentage completing the study? (If % 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 Representativeness

Strong: Q11 is 1

Moderate: Q11 is 2 or Q11 is 5

Weak: Q11 is 3 or Q11 is 4

Section I – Reporting

Q12 Are the hypothesis/aim/objective of the study clearly described? (paper level)

1. Yes
2. No

Q 13 Were inclusion/exclusion criteria specified and number of exclusions reported? (paper level)

1. Criteria and number of exclusions reported
2. Criteria or number of exclusions not reported
3. Criteria and number not reported

Q14 Were the methods to measure the lipid profile discussed?

1. Yes
2. No

Q15 Were the important descriptive statistics for lipid variables reported ?

1. The mean, SD/SEM or the median, IQR and the N per urban-rural category are reported
2. No

The following question is only applicable if the study concerns an urban-rural comparison

Q16 Is a definition of urban – rural provided? (paper level)

1. Yes (for example, definition used from national statistics office)
2. No, only the names of the places are stated
3. No.

Rating Reporting

Strong: Q12 is 1 and Q13 is 1 and Q14 is 1 and Q15 is 1 and if applicable Q16 is 1.

Moderate: Q12 is 1, Q13 is 1 or 2, Q14 is 1 or 2 and Q15 is 1 or 2 and if applicable Q16 is 1 (In case of Q12-Q16 at least 3 questions are 1 and in case of Q12-Q15 at least 2 questions are 1).

Overall rating

7 ratings

Strong

No weak + at least four strong

Moderate

Two weak or fewer than four strong

Weak

More than two weak