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| **Table 4. Shows the quality score of each study using** Newcastle-Ottawa Scale **(NOS) quality assessment tool adapted for cross-sectional studies**.  |
| **Sample selection (maximum 5 stars)** | Wasie et al., | Fentie et al., | Hadgu et al., | Mitiku et al., | Fufa et al., | Woldemariam et al., | Mulu et al., | Daniel et al., |
| 1.**Representativeness of the sample**: 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 and d) No description of the sampling strategy | d | a\* | a\* | a\* | a\* | d | a\* | d |
| 2. **Sample size**: a) **Justified and satisfactory.** \* and b) Not justified. | \* | \* | \* | \* | b | b | \* | b |
| 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 and c) No description of the response rate or the characteristics of the responders and the non-responders. | c | c | c | c | c | c | c | c |
| 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. | b | c | b | b | a | b | c | b |
| **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. \* | b\* | b\* | b\* | b\* | b\* | b\* | b\* | a\* |
| **Outcome: (Maximum 3 stars)** |  |  |  |  |  |  |  |  |
| 1) Assessment of the outcome: a) Independent blind assessment. \*\*, b) Record linkage. \*\* c) Self report. \* and d) No description. | a\*\* | a\*\* | a\*\* | a\*\* | d | a\*\* | a\*\* | a\*\* |
| 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). \* and b) The statistical test is not appropriate, not described or incomplete. | \* | \* | \* | \* | b | \* | \* | \* |
| **Overall quality score (máximum of eight stars)**  | 6 | 7 | 7 | 7 | 3 | 6 | 7 | 5 |
| **Sample selection (maximum 5 stars)**  | Tiyou et al., | Asnakew et al., | Gedle et al., | Hailemariam et al., | Habtamu et al., | SisayTadesse., | Amza et al., |  |
| 1.Representativeness of the sample: 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 and d) No description of the sampling strategy | a\* | a\* | d | a\* | a\* | d | a\* |  |
| 2. Sample size: a) **Justified and satisfactory.** \* and b) Not justified. | b | b | \* | \* | b | \* | \* |  |
| 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 and c) No description of the response rate or the characteristics of the responders and the non-responders. | c | c | a\* | c | c | c | c |  |
| 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. | b | a | a | b | b | b | c |  |
| **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. \* | a\* | a\* | b\* | b\* | b\* | b\* | b\* |  |
| **Outcome: (Maximum 3 stars)** |  |  |  |  |  |  |  |  |
| 1) Assessment of the outcome: a) Independent blind assessment. \*\*, b) Record linkage. \*\* c) Self report. \* and d) No description. | a\*\* | a\*\* | a\*\* | a\*\* | d | a\*\* | a\*\* |  |
| 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). \* and b) The statistical test is not appropriate, not described or incomplete. | b | \* | b | \* | \* | \* | \* |  |
| **Overall quality score (máximum of eight stars)** | 5 | 7 | 7 | 7 | 4 | 6 | 6 |  |

**\*Note: NOS adapted for cross-sectional studies.**

A study can award a maximum of two stars (representing “yes”) for each item within the sample selection and outcome categories. A maximum of one star can be given for each item within comparability.