

## **Materials Design Analysis Reporting (MDAR) Checklist for Authors**

The MDAR framework establishes a minimum set of requirements in transparent reporting applicable to studies in the life sciences (see Statement of Task: [doi:10.31222/osf.io/9sm4x](https://doi.org/10.31222/osf.io/9sm4x)). The MDAR checklist is a tool for authors, editors and others seeking to adopt the MDAR framework for transparent reporting in manuscripts and other outputs. Please refer to the MDAR Elaboration Document for additional context for the MDAR framework.

**Materials**

<b>Antibodies</b>	<b>Yes (indicate where provided: section/paragraph)</b>	<b>n/a</b>
For commercial reagents, provide supplier name, catalogue number and RRID, if available.	No antibodies were used for this study	n/a
<b>Cell materials</b>	<b>Yes (indicate where provided: section/paragraph)</b>	<b>n/a</b>
<b>Cell lines:</b> Provide species information, strain. Provide accession number in repository <b>OR</b> supplier name, catalog number, clone number, <b>OR</b> RRID	No cell lines were used for this study	n/a
<b>Primary cultures:</b> Provide species, strain, sex of origin, genetic modification status.	No primary cultures were used for this study	n/a
<b>Experimental animals</b>	<b>Yes (indicate where provided: section/paragraph)</b>	<b>n/a</b>
<b>Laboratory animals:</b> Provide species, strain, sex, age, genetic modification status. Provide accession number in repository <b>OR</b> supplier name, catalog number, clone number, <b>OR</b> RRID	No laboratory animals were used for this study	n/a
<b>Animal observed in or captured from the field:</b> Provide species, sex and age where possible	No laboratory animals were used for this study	n/a
<b>Model organisms:</b> Provide Accession number in repository (where relevant) <b>OR</b> RRID	No model organisms were used for this study	n/a
<b>Plants and microbes</b>	<b>Yes (indicate where provided: section/paragraph)</b>	<b>n/a</b>
<b>Plants:</b> provide species and strain, unique accession number if available, and source (including location for collected wild specimens)	No plants were used for this study	n/a
<b>Microbes:</b> provide species and strain, unique accession number if available, and source	No microbes were used for this study	n/a
<b>Human research participants</b>	<b>Yes (indicate where provided: section/paragraph)</b>	<b>n/a</b>
Identify authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval.	Methods section, Statistical Analysis sub-heading, 1 <sup>st</sup> paragraph, line 176	Y
Provide statement confirming informed consent obtained from study participants.	Methods section, Study Population sub-heading, 1 <sup>st</sup> paragraph, line 124	Y
Report on age and sex for all study participants.	Result section, Descriptive Analysis sub-heading, 1 <sup>st</sup> paragraph, line 183	Y

**Design**

<b>Study protocol</b>	<b>Yes (indicate where provided: section/paragraph)</b>	<b>n/a</b>
For clinical trials, provide the trial registration number <b>OR</b> cite DOI in manuscript.	This study did not go through any clinical trials	n/a
<b>Laboratory protocol</b>	<b>Yes (indicate where provided: section/paragraph)</b>	<b>n/a</b>
Provide DOI or other citation details if detailed step-by-step protocols are available.	This study was not conducted in a laboratory-setting	n/a
<b>Experimental study design (statistics details)</b>	<b>Yes (indicate where provided: section/paragraph)</b>	<b>n/a</b>
State whether and how the following have been done, <b>or</b> if they were not carried out.	This study is not an experimental study	n/a
Sample size determination	This study is not an experimental study	n/a
Randomisation	This study is not an experimental study	n/a
Blinding	This study is not an experimental study	n/a
Inclusion/exclusion criteria	This study is not an experimental study	n/a
<b>Sample definition and in-laboratory replication</b>	<b>Yes (indicate where provided: section/paragraph)</b>	<b>n/a</b>
State number of times the experiment was replicated in laboratory	This study was not conducted in a laboratory-setting	n/a
Define whether data describe technical or biological replicates	This study was not conducted in a laboratory-setting	n/a
<b>Ethics</b>	<b>Yes (indicate where provided: section/paragraph)</b>	<b>n/a</b>
Studies involving human participants: State details of authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval.	This study used a secondary dataset to analyze the data. The original researcher collected the data as a primary data, by the main author for this manuscript received the data as a secondary dataset. Hence, this specific study did not involve any human participants.	n/a
Studies involving experimental animals: State details of authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval.	This study did not involve any experimental animals	n/a
Studies involving specimen and field samples: State if relevant permits obtained, provide details of authority approving study; if none were required, explain why.	This study did not involve any specimen or field samples	n/a
<b>Dual Use Research of Concern (DURC)</b>	<b>Yes (indicate where provided: section/paragraph)</b>	<b>n/a</b>
If study is subject to dual use research of concern, state the authority granting approval and reference number for the regulatory approval	This study is not subjected to DURC	n/a

**Analysis**

<b>Attrition</b>	<b>Yes (indicate where provided: section/paragraph)</b>	<b>n/a</b>
State if sample or data point from the analysis is excluded, and whether the criteria for exclusion were determined and specified in advance.	No sample or data from the analysis got excluded	n/a
<b>Statistics</b>	<b>Yes (indicate where provided: section/paragraph)</b>	<b>n/a</b>
Describe statistical tests used and justify choice of tests.	Methods section, Statistical Analysis sub-heading, 1 <sup>st</sup> paragraph, line 165	Y
<b>Data Availability</b>	<b>Yes (indicate where provided: section/paragraph)</b>	<b>n/a</b>
State whether newly created datasets are available, including protocols for access or restriction on access.	Because this dataset was originally a primary data, it is not publicly available. If requested, however, the data can be shared	n/a
If data are publicly available, provide accession number in repository or DOI or URL.	Because this dataset was originally a primary data, it is not publicly available. If requested, however, the data can be shared	n/a
If publicly available data are reused, provide accession number in repository or DOI or URL, where possible.	Because this dataset was originally a primary data, it is not publicly available. If requested, however, the data can be shared	n/a
<b>Code Availability</b>	<b>Yes (indicate where provided: section/paragraph)</b>	<b>n/a</b>
For all newly generated code and software essential for replicating the main findings of the study:	Software- Methods section, Statistical Analysis sub-heading, 1 <sup>st</sup> paragraph, line 175 Code-Not publicly available. If requested, however, the code can be shared	Y
State whether the code or software is available.	Software- Methods section, Statistical Analysis sub-heading, 1 <sup>st</sup> paragraph, line 175 Code-Not publicly available. If requested, however, the code can be shared	Y
If code is publicly available, provide accession number in repository, or DOI or URL.	Code is not publicly available. If requested, however, the code can be shared	n/a

**Reporting**

<b>Adherence to community standards</b>	<b>Yes (indicate where provided: section/paragraph)</b>	<b>n/a</b>
MDAR framework recommends adoption of discipline-specific guidelines, established and endorsed through community initiatives. Journals have their own policy about requiring specific guidelines and recommendations to complement MDAR.	No other framework was used for this study	n/a
State if relevant guidelines (eg., ICMJE, MIBBI, ARRIVE) have been followed, and whether a checklist (eg., CONSORT, PRISMA, ARRIVE) is provided with the manuscript.	ICMJE guidelines were followed, as the journal follows ICMJE recommendations for publication	

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