

## **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 in this study	n
<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 materials were used in this study	n
<b>Primary cultures:</b> Provide species, strain, sex of origin, genetic modification status.	No Cell materials were used in this study	n
<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 animals were used in this study	n
<b>Animal observed in or captured from the field:</b> Provide species, sex and age where possible	No animals were used in this study	n
<b>Model organisms:</b> Provide Accession number in repository (where relevant) <b>OR</b> RRID	No animals were used in this study	n
<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 or microbes were used in this study	n
<b>Microbes:</b> provide species and strain, unique accession number if available, and source	No plants or microbes were used in this study	n
<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.	In the "Methods" section: Paragraph 4 In the "Ethical Statement" section: Paragraph 1	a
Provide statement confirming informed consent obtained from study participants.	In the additional document named "Informed consent"	a
Report on age and sex for all study participants.	See Table 1	a

**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.	In the "Methods" section: Paragraph 4	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.	The study was not conducted in the Laboratory	n
<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, or if they were not carried out.		
Sample size determination	It was not necessary to determine the sample size	n
Randomisation	The case group and control group were compared in this study.	n
Blinding	The case group and control group were compared in this study.	n
Inclusion/exclusion criteria	In the "Methods" section: Paragraph 1-3.	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	It was not studied in the laboratory	n
Define whether data describe technical or biological replicates	It was not studied in the laboratory	n
<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.	In the "Methods" section: Paragraph 4 In the "Ethical Statement" section: Paragraph 1	a
Studies involving experimental animals: State details of authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval.	No animal was included in this study	n
Studies involving specimen and field samples: State if relevant permits obtained, provide details of authority approving study; if none were required, explain why.	No specimen and field samples was included in this study.	n
<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 was not a dual used Research.	n

**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.	In the "Methods" section: Paragraph 1-3.	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.	In the "Methods" section: "ROI selection and statistical analysis" paragraph 3 and Table 1.	a
<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.	In the "Data Sharing Statement".	a
If data are publicly available, provide accession number in repository or DOI or URL.	In the "Data Sharing Statement".	a
If publicly available data are reused, provide accession number in repository or DOI or URL, where possible.	In the "Data Sharing Statement".	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:		
State whether the code or software is available.	There was no code in this study.	n
If code is publicly available, provide accession number in repository, or DOI or URL.	There was no code in this study.	n

**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.		
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.	a

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