DRAFT | June 2019

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.). 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

Antibodies	Yes (indicate where provided: section/paragraph)	n/a
For commercial reagents, provide supplier name, catalogue number and RRID, if available.	Reason : the research did not involve antibodies.	n/a

Cell materials	Yes (indicate where provided: section/paragraph)	n/a
Cell lines: Provide species information, strain. Provide accession number in repository **OR** supplier name, catalog number, clone number, **OR** RRID	Reason : the research did not involve cell materials.	n/a
Primary cultures: Provide species, strain, sex of origin, genetic modification status.	Reason : the research did not involve cell materials.	n/a

Experimental animals	Yes (indicate where provided: section/paragraph)	n/a
Laboratory animals: Provide species, strain, sex, age, genetic modification status. Provide accession number in repository **OR** supplier name, catalog number, clone number, **OR** RRID	Reason : the research did not involve experimental animals.	n/a
Animal observed in or captured from the field: Provide species, sex and age where possible	Reason : the research did not involve experimental animals.	n/a
Model organisms: Provide Accession number in repository (where relevant) **OR** RRID	Reason : the research did not involve experimental animals.	n/a

Plants and microbes	Yes (indicate where provided: section/paragraph)	n/a
Plants: provide species and strain, unique accession number if available, and source (including location for collected wild specimens)	Reason : the research did not involve plants and microbes.	n/a
Microbes: provide species and strain, unique accession number if available, and source	Reason : the research did not involve plants and microbes.	n/a

Human research participants	Yes (indicate where provided: section/paragraph)	n/a
Identify authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval.	Study design and participants/paragraph1	
Provide statement confirming informed consent obtained from study participants.	Study design and participants/paragraph1	
Report on age and sex for all study participants.	table 1	

Design

Study protocol	Yes (indicate where provided: section/paragraph)	n/a
For clinical trials, provide the trial registration number **OR** cite DOI in manuscript.	Reason : the research is not clinical trials.	n/a

Laboratory protocol	Yes (indicate where provided: section/paragraph)	n/a
Provide DOI or other citation details if detailed step-by-step protocols are available.	Reason : the research did not involved laborator experiments .	n/a

Experimental study design (statistics details)	Yes (indicate where provided: section/paragraph)	n/a
State whether and how the following have been done**, or** if they were not carried out.	Study design and participants/paragraph1	
Sample size determination	Study design and participants/paragraph1	
Randomisation	Study design and participants/paragraph1	
Blinding	Study design and participants/paragraph1	
Inclusion/exclusion criteria	Study design and participants/paragraph1	

Sample definition and in-laboratory replication	Yes (indicate where provided: section/paragraph)	n/a
State number of times the experiment was replicated in laboratory	Reason : the research did not involved laborator experiments .	n/a
Define whether data describe technical or biological replicates	Reason : the research did not involved laborator experiments .	n/a

Ethics	Yes (indicate where provided: section/paragraph)	n/a
Studies involving human participants: State details of authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval.	The Research Ethics Board of the affiliated hospital of Panzhihua University in February 2018 (No. 102102410191)	
Studies involving experimental animals: State details of authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval.	Reason : the research did not involved anima experiments .	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.	Reason : the research did not involved specimen and field samples.	n/a

Dual Use Research of Concern (DURC)	Yes (indicate where provided: section/paragraph)	n/a
If study is subject to dual use research of concern, state the authority granting approval and reference number for the regulatory approval	Reason : the research did not involved dual use research.	n/a

Analysis

Attrition	Yes (indicate where provided: section/paragraph)	n/a
State if sample or data point from the analysis is excluded, and whether the criteria for exclusion were determined and specified in advance.	**Study design and participants/paragraph1.**	n/a

Statistics	Yes (indicate where provided: section/paragraph)	n/a
Describe statistical tests used and justify choice of tests.	SPSS,The software could meet statistical needs.	

Data Availability	Yes (indicate where provided: section/paragraph)	n/a
State whether newly created datasets are available, including protocols for access or restriction on access.	Reason:three years within the publication date, It is not convenient to open datasets because I am writing related articles with the database.	n/a
If data are publicly available, provide accession number in repository or DOI or URL.	Reason:the datasets are availabl ethree years within the publication date.	n/a
If publicly available data are reused, provide accession	Reason:the datasets arenot availabl recently.	n/a

number in repository or DOI or URL, where possible.		

Code Availability	Yes (indicate where provided: section/paragraph)	n/a
For all newly generated code and software essential for replicating the main findings of the study:	Reason:the research did not involved code and software.	n/a
State whether the code or software is available.	Reason:the research did not involved code and software.	n/a
If code is publicly available, provide accession number in repository, or DOI or URL.	Reason:the research did not involved code and software.	n/a

Reporting

Adherence to community standards	Yes (indicate where provided: section/paragraph)	n/a
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.	

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