

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.		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		N/A
Primary cultures: Provide species, strain, sex of origin, genetic modification status.		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		N/A
Animal observed in or captured from the field: Provide species, sex and age where possible		N/A
Model organisms: Provide Accession number in repository (where relevant) OR RRID		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)		N/A
Microbes: provide species and strain, unique accession number if available, and source		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.	Methods/ 1 paragraph Line 138-139/page 7	
Provide statement confirming informed consent obtained from study participants.	Methods/ 1 paragraph Line 139-140/page 7	
Report on age and sex for all study participants.	Results/ Table1	

Design

Study protocol	Yes (indicate where provided: section/paragraph)	n/a
For clinical trials, provide the trial registration number		N/A

OR cite DOI in manuscript.		
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Laboratory protocol	Yes (indicate where provided: section/paragraph)	n/a
Provide DOI or other citation details if detailed step-by-step protocols are available.		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.		
Sample size determination		N/A
Randomisation		N/A
Blinding		N/A
Inclusion/exclusion criteria		N/A

Sample definition and in-laboratory replication	Yes (indicate where provided: section/paragraph)	n/a
State number of times the experiment was replicated in laboratory		N/A
Define whether data describe technical or biological replicates		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.	Methods/ 1 paragraph Line 138-139/page 7	
Studies involving experimental animals: State details of authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval.		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.		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		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.	Methods/ 3-5 paragraph Line 154-170/ page 8-9	

Statistics	Yes (indicate where provided: section/paragraph)	n/a
Describe statistical tests used and justify choice of tests.	Methods/ 8-9 paragraph Line 197-215 /page 10-11	

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.		N/A
If data are publicly available, provide accession number in repository or DOI or URL.		N/A
Provide details on any data generated, stored, or processed.		N/A

If publicly available data are reused, provide accession number in repository or DOI or URL, where possible.		N/A
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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:		
State whether the code or software is available.		N/A
If code is publicly available, provide accession number in repository, or DOI or URL.		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.	

Article information: <http://dx.doi.org/10.21037/atm-20-7569>

Consolidated criteria for reporting qualitative studies (COREQ): 32-item checklist

Section	Item	Checklist description	Reported on Page Number/Line Number	Reported on Section/Paragraph
Domain 1: Research team and reflexivity				
Personal Characteristics				
1.	Interviewer/facilitator	Which author/s conducted the interview or focus group?	Page 9/Line 175-177	Methods/ paragraph 6
2.	Credentials	What were the researcher's credentials? <i>E.g. PhD, MD</i>	Page 9/Line 177	Methods/ paragraph 6
3.	Occupation	What was their occupation at the time of the study?	Page 9/Line 177	Methods/ paragraph 6
4.	Gender	Was the researcher male or female?	Page 9/Line 178	Methods/ paragraph 6
5.	Experience and training	What experience or training did the researcher have?	Page 9/Line 176-177	Methods/ paragraph 6
Relationship with participants				
6.	Relationship established	Was a relationship established prior to study commencement?	Page 9-10/Line 184-185	Methods/ paragraph 7
7.	Participant knowledge of the interviewer	What did the participants know about the researcher? <i>e.g. personal goals, reasons for doing the research</i>	Page 10/Line 185-187	Methods/ paragraph 7
8.	Interviewer characteristics	What characteristics were reported about the interviewer/facilitator? <i>e.g. Bias, assumptions, reasons and interests in the research topic</i>	Page 9/Line 177-180	Methods/ paragraph 6
Domain 2: study design				
Theoretical framework				
9.	Methodological orientation and Theory	What methodological orientation was stated to underpin the study? <i>e.g. grounded theory, discourse analysis, ethnography, phenomenology, content analysis</i>	Page 10/Line 197-198	Methods/ paragraph 8
Participant selection				
10.	Sampling	How were participants selected? <i>e.g. purposive, convenience, consecutive, snowball</i>	Page 8/Line 158	Methods/ paragraph 3

11.	Method of approach	How were participants approached? e.g. <i>face-to-face, telephone, mail, email</i>	Page 9/Line 176	Methods/ paragraph 6
12.	Sample size	How many participants were in the study?	Page 11/Line 220	Results/ paragraph 1
13.	Non-participation	How many people refused to participate or dropped out? Reasons?	Page 10/Line 192-193	Methods/ paragraph 7
Setting				
14.	Setting of data collection	Where was the data collected? e.g. <i>home, clinic, workplace</i>	Page 8/Line 129-130	Methods/ paragraph 2
15.	Presence of non-participants	Was anyone else present besides the participants and researchers?	Page 9/Line 173-175	Methods/ paragraph 6
16.	Description of sample	What are the important characteristics of the sample? e.g. <i>demographic data, date</i>	Table1	Results/ table1
Data collection				
17.	Interview guide	Were questions, prompts, guides provided by the authors? Was it pilot tested?	Page 9/Line 180-183	Methods/ paragraph 6
18.	Repeat interviews	Were repeat interviews carried out? If yes, how many?	Page 10/Line 193-194	Methods/ paragraph 7
19.	Audio/visual recording	Did the research use audio or visual recording to collect the data?	Page10/Line 191-192	Methods/ paragraph 7
20.	Field notes	Were field notes made during and/or after the interview or focus group?	Page10/Line 191-192	Methods/ paragraph 7
21.	Duration	What was the duration of the interviews or focus group?	Page 10/Line 192	Methods/ paragraph 7
22.	Data saturation	Was data saturation discussed?	Page 11/Line 210-215	Methods/ paragraph 9
23.	Transcripts returned	Were transcripts returned to participants for comment and/or correction?	None	
Domain 3: analysis and findings				
Data analysis				
24.	Number of data coders	How many data coders coded the data?	Page 11/Line 207	Methods/ paragraph 9
25.	Description of the coding tree	Did authors provide a description of the coding tree?	None	
26.	Derivation of themes	Were themes identified in advance or derived from the data?	Page 10/Line 198-200	Methods/ paragraph 8
27.	Software	What software, if applicable, was used to manage the	Page 10/Line 203	Methods/ paragraph

		data?		9
28.	Participant checking	Did participants provide feedback on the findings?	None	
Reporting				
29.	Quotations presented	Were participant quotations presented to illustrate the themes / findings? Was each quotation identified? e.g. <i>participant number</i>	Page 11-24	Results
30.	Data and findings consistent	Was there consistency between the data presented and the findings?	Page 11-24	Results
31.	Clarity of major themes	Were major themes clearly presented in the findings?	Page 11-24	Results
32.	Clarity of minor themes	Is there a description of diverse cases or discussion of minor themes?	Page 11-24	Results

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*As the checklist was provided upon initial submission, the page number/line number reported may be changed due to copyediting and may not be referable in the published version. In this case, the section/paragraph may be used as an alternative reference.