

Some Title

Lorenzo Fabbri^{1,2,*}

Martine Vrijheid^{1,2}

¹ Barcelona Institute for Global Health (ISGlobal), Barcelona, Spain

² Pompeu Fabra University, Barcelona, Spain

* Correspondence: [Lorenzo Fabbri <lorenzo.fabbri@isglobal.org>](mailto:lorenzo.fabbri@isglobal.org)

Abstract

Background

Objectives

Methods

Results

Discussion

- 10 • The title should be less or equal than 300 characters. It should indicate the study design,
11 the subject of the paper, information regarding exposures and outcomes assessed, and
12 whether the study was observational or experimental.
- 13 • The suggested length of the abstract is less or equal than 300 words.
- 14 • The suggested length is <7,000 words, excluding abstract, references, tables, figure cap-
15 tions, acknowledgments, and Supplementary Material.
- 16 – Concise sub-headings should be less or equal than 8 words, and they should be used
17 to organize information rather than summarize the results.
- 18 – In-text citations with superscript numbers: outside periods and commas, but inside
19 colons and semicolons.

20 **1 Introduction**

21 **1.1 Background and rationale**

- 22 • Brief review of the literature to summarize current knowledge.
 - 23 – Acknowledge inconsistencies.
 - 24 – For each study, indicate whether it was observational or experimental, and note key
25 characteristics of study populations or experimental models.
- 26 • Explain the scientific background and rationale for the investigation being reported.
 - 27 – Identify knowledge gaps addressed by the current study.
- 28 • Provide context for the study: include information on exposures and outcomes, and why
29 they are relevant to environmental health.

30 **1.2 Objectives**

- 31 • Provide a clear description of the study hypotheses/aims/objectives, and eventually an
32 overview of the approach used to address them.

33 **2 Methods**

34 **2.1 Study design**

- 35 • Present key elements of study design

36 2.2 Setting

- 37 • Describe the setting, locations, and relevant dates, including periods of recruitment,
38 exposure, follow-up, and data collection.

39 2.3 Participants

- 40 • Cohort study: eligibility criteria, and the sources and methods of selection of partici-
41 pants. Describe methods of follow-up.
- 42 • Cross-sectional study: give eligibility criteria, and the sources and methods of selection
43 of participants.
- 44 • Describe informed consent protocols.
- 45 • Report how and by whom *race* or *ethnicity* was defined, and why this information was
46 included in the study design. Disaggregate race and ethnicity data to the fullest extent
47 possible.

48 2.4 Variables

- 49 • Clearly define all outcomes, exposures, predictors, potential confounders, and effect mod-
50 ifiers.
- 51 • Explain the rationale for treating race as an exposure, confounder, effect modifier, or
52 other type of variable in analyses.

53 2.4.1 Confounders

54 2.4.2 Endocrine disrupting chemicals

55 2.4.3 Corticosteroids

56 2.4.4 Neurodevelopment

57 2.5 Data sources and measurement

- 58 • For each variable of interest, give sources of data and details of methods of assessment
59 (measurement).

60 2.6 Bias

- 61 • Describe any efforts to address potential sources of bias.

62 2.7 Study size

- 63 • Explain how the study size was arrived at.

64 2.8 Quantitative variables

- 65 • Explain how quantitative variables were handled in the analyses. If applicable, describe
66 which groupings were chosen and why.

67 2.9 Statistical methods

- 68 • Methods for selecting potential confounders (provide DAGs).
- 69 • Describe all statistical methods with assumptions, including those used to control for
70 confounding.
 - 71 – Description of outcome model, weighting method, estimand, and balance assess-
72 ment.
 - 73 – Description of method used to estimate effects (e.g., g-computation).
 - 74 – Description of method used for SE and CI.
- 75 • Describe any methods used to examine subgroups and interactions (sub-group analysis
76 or moderation analysis or analysis of effect-modification).
- 77 • Explain how missing data were addressed.
- 78 • Cohort study: explain how loss to follow-up was addressed.
- 79 • Cross-sectional study: describe analytical methods taking account of sampling strategy.
- 80 • Describe any sensitivity analyses.
- 81 • When referring to previous publications for methods' details, include a brief description
82 of the approach, key assumptions and limitations, and any deviation.
- 83 • Names and version numbers for the used software packages, including non-data argu-
84 ments if deviating from the default ones.

85 3 Results

86 output/paper/tables.qmd@tbl-chem-info

87 3.1 Participants

- 88 • Give reasons for non-participation at each stage.

89 3.2 Descriptive data

90 3.3 Outcome data

91 3.4 Main results

- 92 • All results on which study conclusions or inferences are based, including null findings
93 and results of secondary or sensitivity analyses, must be reported. Use of sub-headings
94 that describe the nature of the results (but no declarative statements).
 - 95 – Provide a clear and concise description of all findings without extrapolating beyond
96 the study results.
 - 97 – Do not limit results to those *statistically significant* or that support the study hy-
98 potheses. Avoid using statistical significance testing as the sole or primary criterion
99 for interpreting the obtained results. If significance testing or *p*-values are used,
100 report numeric *p*-values, rounded to 1-2 digits, for all results.
- 101 • Give unadjusted and confounder-adjusted estimates and their precision (e.g., 95% con-
102 fidence interval). Make clear which confounders were adjusted for and why they were
103 included. Include the number of observations for each analysis after accounting for miss-
104 ing data. Include numeric data within figures (e.g., forest plots), or provide tables with
105 corresponding numeric data for all figures.
 - 106 – `marginaleffects` tables.
- 107 • Report category boundaries when continuous variables were categorized.

108 3.5 Other analyses

- 109 • Report other analyses done (e.g., analyses of subgroups and interactions, and sensitivity
110 analyses).

111 4 Discussion

112 4.1 Key results

- 113 • Summarise key results with reference to study objectives.
- 114 • Provide a review of the relevant literature to put the study findings into context.
 - 115 – It should be complete and balanced, including inconsistent results.
 - 116 – It should include, for each source, sufficient details: study design, sample size,
117 population, specific exposures and outcomes.

118 4.2 Limitations

- 119 • Discuss limitations of the study, taking into account sources of potential bias or imprecision.
120
- 121 • Discuss both direction and magnitude of any potential bias.

122 Some limitations:

- 123 • Cross-sectional study.
- 124 • Chemicals measured in night and morning samples, whereas metabolites (the outcome)
125 were measured only in night samples.
- 126 • Cortisol measured at night, when should be lowest.
- 127 • Change of estimand when trimming weights.
- 128 • Model misspecification.
- 129 • Mixtures effect.
- 130 • Residual confounding.
- 131 • Some confounders were not used since large percentage of missing values.
- 132 • Multiple comparisons.

133 4.3 Interpretation

- 134 • End with a summary of the key findings and their implications for the study hypotheses,
135 future research, and policy.
- 136 • Give a cautious overall interpretation of results considering objectives, limitations, mul-
137 tiplicity of analyses, results from similar studies, and other relevant evidence.

138 4.4 Generalisability

- 139 • Discuss the generalisability (external validity) of the study results.

140 **5 Funding**

- 141 • Give the source of funding and the role of the funders for the present study and, if
142 applicable, for the original study on which the present article is based.

