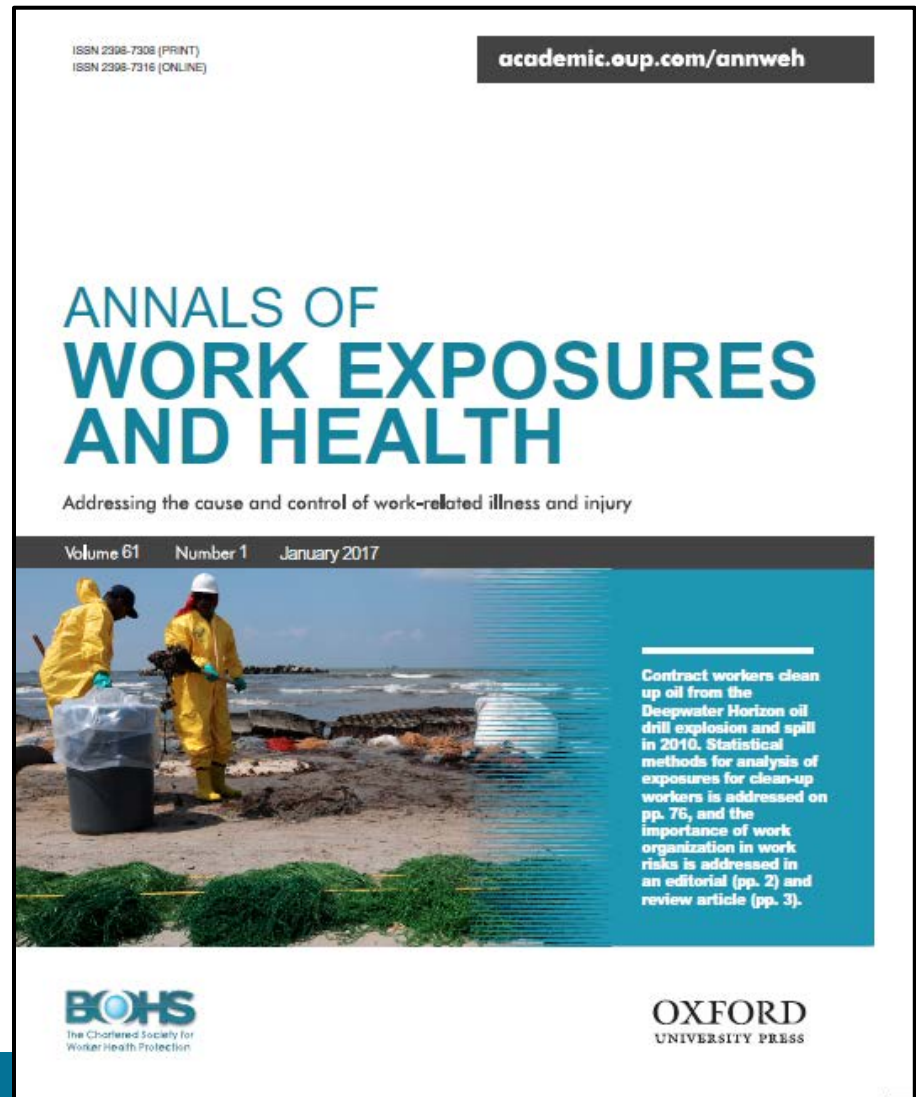


How to Publish in the Annals of Work Exposures and Health

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Chief Editor

Harrogate, UK
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What is “research”?

Oxford English Dictionary:

“the *systematic* investigation into and study of materials, sources, etc., in order to establish *facts* and reach *new conclusions*”

Might add:

Italics added

Dissemination of the results in the wider community in order to establish those conclusions.

Methodical Process

- What is (are) the question(s)
 - Introduction
- How were the data obtained and analyzed
 - Methods
- Describe the results
 - Results: text, tables and figures
- Interpretation
 - Discussion

Why Publish?

- Allow others to learn from your work
 - Avoid redundant efforts
- Establishes what is known
- Stimulates thinking
 - What are the next issues/questions for the field?
- Research ethics expect findings to be published
- Not to mention
 - Your reputation, CV, job prospects, etc.

Why in the Peer-reviewed Literature?

- Quality assurance
- Meets standards and methods for evidence
- Reproducibility?
- Does not prove truth!
- Plenty of abuses
- Open Access vs. Traditional

What makes your work publishable?

- Generalizable
- Novel
- Significance of potential impact
- Applicability to further investigation
 - Or practice
- What is not publishable?
 - Practical, applied research is good
 - As long as it meets criteria above

What do we publish?

- Descriptive studies
 - E.g., Exposure assessments
- Methods development
 - Validation of a new device or technology
 - Statistical methods with OH applications
- Evaluations
 - PPE or control effectiveness
 - Management systems, educational programs
- Intervention studies

Scope

<https://academic.oup.com/annweh/pages/About>

- ***Annals of Work Exposures and Health*** is dedicated to presenting advances in exposure science supporting the recognition, quantification, and control of exposures at work, and epidemiological studies on their effects on human health and well-being.
- "Is this paper going to help readers better understand, quantify, and control conditions at work that adversely or positively affect health and well-being?"
- Interests:
 - Quantification of exposures (broadly defined)
 - Relationship between exposures and health (i.e., epidemiology)
 - Vulnerable populations
 - Intervention effectiveness (technical controls, or systematic controls)
 - Policy and management affecting worker health
 - Methodologies, mechanisms underlying the above

Types of Papers

- Original Research
 - 5000 words; 6 tables/figures
- Short Communications
 - 1500 words; 2 tables/figures
- Reviews
 - 5000 words; 6 tables/figures
- Commentaries
 - 2000 words
- Editorials
 - 1500 words
- Letters to the Editor
 - (1000 words)

How: Preparing a Manuscript

- Read the instructions to authors
 - https://academic.oup.com/annweh/pages/Author_Guidelines
- Spare, crisp, succinct, clear, unambiguous!
- Say what the reader needs to know
 - (not what you think is an interesting fact)
- Avoid first person
 - Conveys concept of generalizability
- Use online supplemental files for important but not core material
- Language is important
 - Non-English speakers should get good, critical reviews/editing

Tips on Paper Writing

- Introduction
 - Why you are asking the question – what does the reader need to know about the subject
 - Beware exaggerated claims and unreferenced statements
 - Ends with clear statement of research aim(s)
- Methods must be clear (most often criticised)
 - Can someone else reproduce what you did?
- Results
 - Facts not interpretation here
 - Tables and Figures (don't reproduce same information)
 - Don't reproduce data from tables in the text
- Discussion
 - Briefly state your most important finding
 - How do findings compare with what has been found elsewhere?
 - [Strengths and weaknesses]
 - Some sort of winding up sentence/conclusion

Tables and Figures

- Present your key findings
 - Tables:
 - Detailed results
 - Specificity of findings
 - Figures:
 - Usually for presentation more than publication
 - Make a specific point
 - Display complex data
 - Format carefully
 - Structure should support understanding of key findings

White space, Run-on

Table 4. Plant-specific determinants of thoracic aerosol exposure^a in cement production workers (Model 2). Random effects models without plant (Model 0) and with plant (Model 1) are shown for comparison. *N* = 6111

Factor	Model 0		Model 1		Model 2		LR test
	B	SE	B	SE	B	SE	
Fixed effects							
Intercept	-0.34	0.12	-0.24	0.068	-0.51	0.098	
Number employed							<0.001
69-138					REF		
144-204					-0.084	0.058	
212-483					0.34	0.054	
Maximum cement production, 10 ⁴ ton year ⁻¹							<0.001
0.43-1.1					REF		
1.2-1.8					0.07	0.055	
1.9-4.0					-0.095	0.053	
Maximum cement production/ employee, 10 ³ ton year ⁻¹							0.02
2.7-6.3					REF		
6.4-8.5					0.056	0.023	
8.7-12.4					0.0024	0.027	
Tidiness							<0.001
Clean					REF		
Less clean					0.18	0.019	
Bag filling							
0-4%							
6-17%							
18-40%							
Annual cement production							
38-86%							
86-98%							
100%							
Random effects							
Plant		Variance		SE		Variance	SE
		n. i.		0.087		0.031	n. i.
Job type		0.105		0.057		0.064	0.011
						0.072	0.039

Table 4. Continued

Factor	Model 0		Model 1		Model 2		LR test
	B	SE	B	SE	B	SE	
Workers	0.151	0.0089	0.071	0.0070	0.111	0.0077	
Season	0.026	0.0077	0.024	0.0073	0.023	0.0074	
Error	0.161	0.0049	0.163	0.0050	0.162	0.0050	
Sum	0.443		0.409		0.368		

B, regression coefficient; LR test, likelihood ratio test between full model and model without the fixed effect; n. i., not included in the model.
^aLog₁₀-transformed exposure in mg m⁻³.

Should be informative, necessary
and with appropriate structure
(statistics should have n and SE associated with them)

Table 3. The established regression describing the effect of the process on BSF (Ln values).

Intercept β_0	Variable 1 β_1	Variable 2 β_2	Variable 3 β_3	R^2 (%)	P-value	Remark
-11.53	Asphalt temp. (°C) 0.064	Large-size finisher -0.542	Manual work 0.011	44	<0.001	Small-size finisher as fixed variable

- Avoid unneeded columns
- Arrange parameters horizontally
- Title over-kill

Table 3. Data of average particle mass concentration, metal content of interest in the welding fume (WF) from WF-derived metal concentrations in air, and exposure duration to reach the final dose of 15 mg h m⁻³ of all nine exposure days sorted by zero emission, low alloyed welding, or high alloyed welding (ZE/LA/HA)

		Units	ZE	LA	HA
Average particle mass concentration	Mean	mg m ⁻³	<0.1	2.51	2.55
	SD		NA	0.013	0.020
	Range		<0.1	2.50–2.52	2.53–2.57
Total chromium concentration WF	Mean	%	NA	NA	3.82
	SD		NA	NA	0.22
	Range		NA	NA	3.47–4.07
Chromium (VI) concentration in WF	Mean	%	NA	NA	2.20
	SD		NA	NA	0.04
	Range		NA	NA	2.17–2.25
Nickel concentration in WF	Mean	%	NA	NA	1.17
	SD		NA	NA	0.14
	Range		NA	NA	1.01–1.38
Total chromium concentration in air	Mean	mg m ⁻³	NA	NA	0.095
	SD		NA	NA	0.006
	Range		NA	NA	0.087–0.102
Chromium (VI) concentration in air	Mean	mg m ⁻³	NA	NA	0.055
	SD		NA	NA	0.001
	Range		NA	NA	0.054–0.056
Nickel concentration in air	Mean	mg m ⁻³	NA	NA	0.029
	SD		NA	NA	0.004
	Range		NA	NA	0.025–0.035
Exposure duration	Mean	H	5.79	6.05	6.04
	SD		0.2	0.2	0.1
	Range		5.50–6.08	5.82–6.28	5.88–6.18

NA, not available; h, hour.

Redundant Text

Table 1. Performance of models predicting trunk and arm posture from administrative data, workers' ratings and observations

Exposure	Predictors	AIC	R ²	SE
Administrative data				
Median trunk angle	Age, night shift, staff, paper rolls	647	6%	13.5
Time in neutral trunk posture	Age, night shift, staff, paper rolls	614	2%	10.8
Frequency of periods in neutral trunk posture	Age, night shift, staff, paper rolls	515	3%	5.8
Median upper arm angle	Age, night shift, staff, paper rolls	538	15%	7.2
Time in neutral arm posture	Age, night shift, staff, paper rolls	607	6%	11.0
Frequency of periods in neutral arm posture	Age, night shift, staff, paper rolls	557	9%	8.4
Workers' ratings				
Median trunk angle	Δfatigue, Δlow back pain, extreme back postures, Tmax	633	27%	11.6
Time in neutral trunk posture	Δfatigue, Δlow back pain, extreme back postures, Tmax	611	8%	10.4
Frequency of periods in neutral trunk posture	Δfatigue, Δlow back pain, extreme back postures, Tmax	504	21%	5.1
Median upper arm angle	Δfatigue, Δshoulder pain, extreme arm postures, Tmax	538	14%	7.1
Time in neutral arm posture	Δfatigue, Δshoulder pain, extreme arm postures, Tmax	601	17%	10.4
Frequency of periods in neutral arm posture	Δfatigue, Δshoulder pain, extreme arm postures, Tmax	536	36%	6.8
Observations				
Median trunk angle	Observed median trunk angle, time in sitting, time MMH, observed Tmax	1920	27%	11.7
Time in neutral trunk posture	Observed time in neutral trunk posture, time in sitting, time MMH, observed Tmax	1859	7%	10.5
Frequency of periods in neutral trunk posture	Observed time in neutral trunk posture, time in sitting, time MMH, observed Tmax	1511	20%	5.2
Median upper arm angle	Observed median upper arm angle, time in sitting, time MMH, observed Tmax	1595	21%	6.7
Time in neutral arm posture	Observed time in neutral arm posture, time in sitting, time MMH, observed Tmax	1795	25%	9.9
Frequency of periods in neutral arm posture	Observed time in neutral arm posture, time in sitting, time MMH, observed Tmax	1490	56%	5.6

Format to make intended comparisons

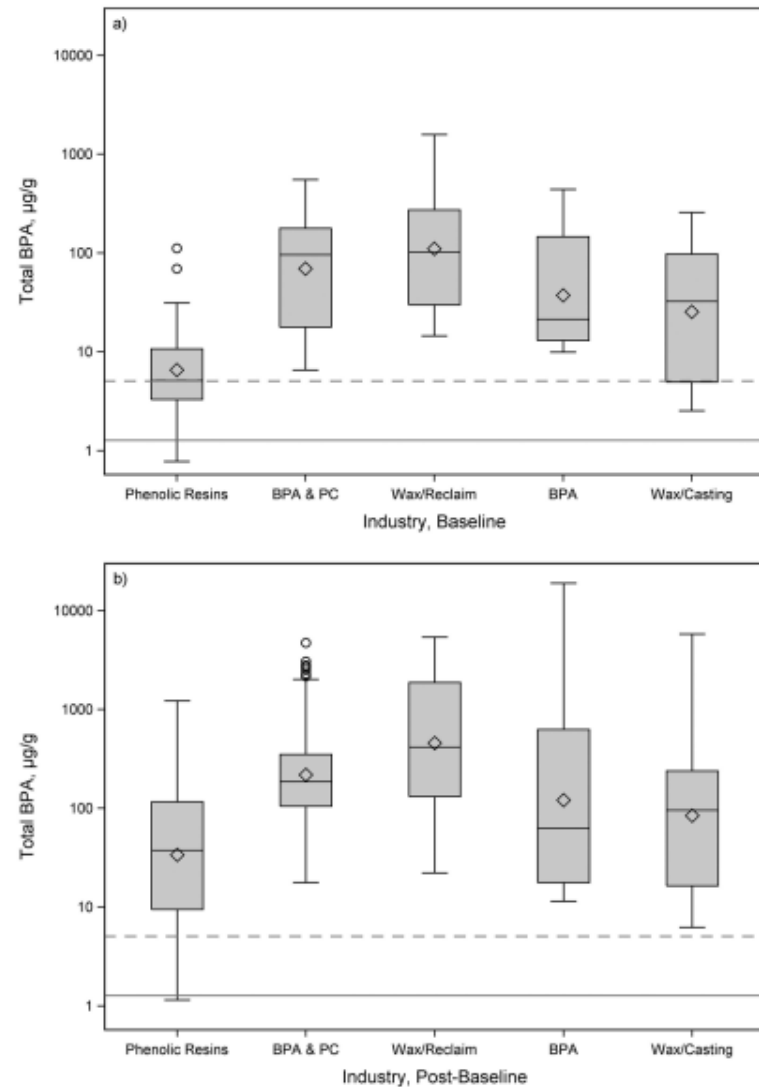


Figure 2. Box plots of total BPA ($\mu\text{g g}^{-1}$) by industry for (a) baseline ($n = 77$) and (b) post-baseline ($n = 448$) samples. The box represents the interquartile range, and the diamond represents the GM. Solid horizontal line is the GM ($1.27 \mu\text{g g}^{-1}$); dashed horizontal line is the 95th percentile ($5.09 \mu\text{g g}^{-1}$) for total BPA from NHANES 2013–2014, adults 20 years and older. PC, polycarbonate.

More Tips

- Abstract
 - Write this after the main sections
 - Must read as stand alone and convey the main points
- Key words
- Title, write it last
 - Adequate but succinct
- References
 - Accurate and complete
- Acknowledgments/conflicts of interest
 - Funding source
 - Other contributors



Titles:
Complete but Succinct

Could have been:
“Using Hierarchical Cluster
Models to Identify Job Groups
from questionnaires”

Or

“Grouping Jobs by similar
questionnaire responses”

Using Hierarchical Cluster Models to Systematically Identify Groups of Jobs With Similar Occupational Questionnaire Response Patterns to Assist Rule-Based Expert Exposure Assessment in Population-Based Studies

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ABSTRACT

Objectives: Rule-based expert exposure assessment based on questionnaire response patterns in population-based studies improves the transparency of the decisions. The number of unique response patterns, however, can be nearly equal to the number of jobs. An expert may reduce the number of patterns that need assessment using expert opinion, but each expert may identify different patterns of responses that identify an exposure scenario. Here, hierarchical clustering methods are proposed as a systematic data reduction step to reproducibly identify similar questionnaire response patterns prior to obtaining expert estimates. As a proof-of-concept, we used hierarchical clustering methods to identify groups of jobs (clusters) with similar responses to diesel exhaust-related questions and then evaluated whether the jobs within a cluster had similar (previously assessed) estimates of occupational diesel exhaust exposure.

Submitting your paper

- Prepare a clean document
- Make separate files for figures
 - Photos must be high quality
- Authors must (all of following):
 - Contribute to design, conception, data acquisition
 - Writing or revising manuscript
 - Approve final version
 - Willing to stand by results and conclusions
- Acknowledge non-author contributors
- Acknowledge potential conflicts of interest

Process takes time

- Chief Editor Screens
 - Reject
 - Assign Editor for Paper
- Editor Screens
 - Sends paper to 2 or more reviewers (busy & unpaid)
- Reviewers read & send comments to Editor
- Editor collates and sends back to Chief Editor
 - Accept
 - Accept with minor revisions
 - Major revision
 - Reject
- Chief Editor considers recommended decision
 - Revise letter, or approves notification
- Repeat as necessary

Responding to Reviews

- You're 90% there
- Read reviews carefully and multiple times
 - Can be unclear, but doesn't mean they aren't on to something important
- Three types of comments
 - Clarify, clean up, make more concise, add citation or justification, or adjust interpretation
 - Provide additional detail, conduct additional analysis, consider an alternative interpretation of results
 - Do a different study, collect different data, etc.

Tips for Responding

- Find something positive in the comments and thank the reviewer for their insights
- Be polite but clear and direct
- Timeliness is really helpful to all involved
- Collect responses from each reviewer and see where they overlap
- Organize the response in a way that will help the reviewer see clearly how you have responded
- Quote or paraphrase the comment before each response
- Respond thoroughly and thoughtfully
 - But only conduct additional analysis if it is needed for a thoughtful response
- OK to disagree. But, explain thoroughly why not, and why your approach is correct.
- Multiple rounds are ok, don't get discouraged.

What would you like to publish?