

# PEER REVIEW

Reviewers (ISZ 4):

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Section	Criterion	Points	Argumentation
Problem formulation		5/5	
	Is the problem clearly stated	1	Yes, problem is clearly stated.
	What is the point of creating model, are potential use cases defined	1	Potential use cases were described.
	Where do data comes from, what does it contain	1	Source and contents of data were described.
	DAG has been drawn	1	Yes
	Confoundings (pipe, fork, collider) were described	1	Description of potential confoundings was made.
Data preprocessing		2/2	
	Is preprocessing step clearly described	1	Steps of preprocessing were provided and described.
	Reasoning and types of actions taken on the dataset have been described	1	It was described, as stated above.
Model		4/4	
	Are two different models specified	1	Yes.
	Are difference between two models explained	1	Yes, it is explained (more predictors in second model)
	Is the difference in the models justified (e.g. does adding additional parameter makes sense? )	1	Yes. Decision based on research note included in raport.
	Are models sufficiently described (what are formulas, what are parameters, what data are required )	1	All inputs, parameters and formulas are provided and described.
Priors		4/4	
	Is it explained why particular priors for parameters were selected	1	Yes, it is explained.
	Have prior predictive checks been done for parameters (are parameters	1	Yes.

	simulated from priors make sense)		
	Have prior predictive checks been done for measurements (are measurements simulated from priors make sense)	1	Yes, they do make sense, there aren't any impossible values.
	How prior parameters were selected	1	.Justification provided for chosen priors.
Posterior analysis (model 1)		3.5/4	
	were there any issues with the sampling? if there were what kind of ideas for mitigation were used	1	Issues and solution for them were described.
	are the samples from posterior predictive distribution analyzed	1	Samples were analyzed.
	are the data consistent with posterior predictive samples and is it sufficiently commented (if they are not then is the justification provided)	0.5	Samples were consistent, but only comment was that it follows data.
	have parameter marginal distributions been analyzed (histograms of individual parameters plus summaries, are they diffuse or concentrated, what can we say about values)	1	Plots were drawn and described.
Posterior analysis (model 2)		2.5/4	
	were there any issues with the sampling? if there were what kind of ideas for mitigation were used	1	Issues and solution for them were described.
	are the samples from posterior predictive distribution analyzed	0	Samples were plotted, but weren't described.
	are the data consistent with posterior predictive samples and is it sufficiently commented (if they are not then is the justification provided)	0.5	Samples were consistent, but not commented.
	have parameter marginal distributions been analyzed (histograms of individual parameters plus summaries, are they diffuse or	1	Plots were drawn and described.

	concentrated, what can we say about values)		
Model comparison		4/4	
	Have models been compared using information criteria	1	Yes, both criteria were used.
	Have result for WAIC been discussed (is there a clear winner, or is there an overlap, were there any warnings)	1	Model outcome was discussed, warnings were described.
	Have result for PSIS-LOO been discussed (is there a clear winner, or is there an overlap, were there any warnings)	1	Model outcome was discussed.
	Whas the model comparison discussed? Do authors agree with information criteria? Why in your opinion one model better than another	1	Comparison results were discussed, authors agree with them.

Total points: 25/27 (%)