

Response to Letter to the Editor, “Directed Acyclic Graphs for Oral Disease Research”

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and C. Poole¹

We thank Dr. Schwan and colleagues (2016) for their comments on our paper (Akinkugbe et al. 2016).

We agree that case definitions sometimes oblige the outcome assessor to draw causal connections as part of case ascertainment. A good example is the DC/TMD (Diagnostic Criteria for Temporomandibular Disorders) classification of “degenerative joint disease,” where history of joint noises is a necessary component of the case ascertainment. If history of joint noises was an exposure of interest, it would be fine to study TMD myalgia as the outcome but not degenerative joint disease. In the latter instance, there could not logically be any unexposed cases.

We also concur that exposures more amenable to intervention should receive higher priority from a pragmatic perspective.

Finally, as noted in our paper, we agree that directed acyclic graphs are at least as useful for selection bias as they are for confounding and that DAGitty is a very helpful piece of freeware.

Acknowledgments

A.A.A. was partly supported by the NRSA T90 Training Grant, National Institutes of Health / National Institute of Dental and Craniofacial Research (5T90DE021986). The authors declare no

potential conflicts of interest with respect to the authorship and/or publication of this article.

References

- Akinkugbe AA, Sharma S, Ohrbach R, Slade GD, Poole C. 2016. Directed acyclic graphs for oral disease research. *J Dent Res.* 95(8):853–859.
Schwan C, Mundt T, Biffar R. 2016. Letter to the editor: “Directed acyclic graphs for oral disease research.” *J Dent Res.* 95(11):1314. 10.1177/0022034516659871

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