

Neuromodulation Guidelines:

Do They Pass the Test?

Guidelines On Neurostimulation for Chronic Pain: A Compliance Appraisal of Reporting Standards

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BACKGROUND

- Neuromodulation has experienced substantial growth, accompanied by an increase in practice guidelines.

- Adherence to reporting standards remains critical in developing comprehensive and transparent clinical practice guidelines.

- The Reporting Items for Practice Guidelines in Healthcare (RIGHT)¹ and the Appraisal of Guidelines for Research and Evaluation (AGREE)² checklists are two recent reporting standards for guidelines.

OBJECTIVES

- Critically appraise the compliance to reporting standards among guidelines on neurostimulation for chronic pain using established reporting standards (RIGHT and AGREE checklists).

- Identify potential predictors of reporting adherence, thereby assisting guideline article authors, editors and peer reviewers.

- Primary outcome was the percentage of completed checklist items. Secondary outcomes included the identification of under-reported checklist items, predictors of reporting quality, and the agreement between the two checklists.

METHODS

- Ovid MEDLINE(R) and Epub Ahead of Print, In-Process & Other Non-Indexed Citations, and Daily, Ovid EMBASE, Ovid Cochrane Database of Systematic Reviews, and Scopus databases were conducted with the assistance of an experienced librarian.

- Only English full-text guidelines that appraised evidence related to neurostimulation therapy (spinal cord stimulation, dorsal root ganglion stimulation, or peripheral nerve stimulation) for the treatment of chronic pain in adults were included.

- Case reports/series, observational studies, randomized controlled trials, and systematic reviews were not included.

- Each article was graded using the RIGHT and AGREE checklists for adherence to reporting standards.

- The RIGHT checklist includes 35 total items, with each item being scored as “yes”, “no”, or “unclear”. The AGREE checklist includes a total of 87 items, which were determined to be “completed” or “not completed”. Simple linear regression analysis identified the relationship between the percentage of completed items on each checklist and the following predictor variables: (1) journal impact factor, (2) publication year, (3) number of authors, and (4) guideline’s topic or theme.

- An interclass correlation coefficient (ICC) was used to assess the inter-checklist agreement, with values <0.5 signifying poor agreement, and >0.9 signifying excellent agreement.

RESULTS

- A total of 24 articles (2007 to 2023) from 13 different journals were included in the final analysis.

- The mean journal impact factor was 3.27±1.25, and the average number of authors per guideline article was 15.67±10.71.

- Most guidelines (75%) focused on the theme of “best practices/patient selection” while four addressed themes related to neuromodulation-related complications.

- The mean overall percentage of completed RIGHT checklist items across all guideline articles was 55.12%±12.68%.

- Seven of 35 (20%) RIGHT checklist items were severely under-reported, including “year of publication included in the title”, “intended setting for the guideline”; “consideration of target population values and preferences”; “cost and resource implications”; “consideration of other contextual factors (eg, equity)”; “quality assurance measures”; and “limitations of the guideline”.

- The mean overall percentage of completed AGREE checklist items across all guideline articles was 52.16%±10.51%.

- Notably, 28 of 87 (32.18%) AGREE checklist items were severely under-reported (<25% completion across all articles).

FIGURE 1

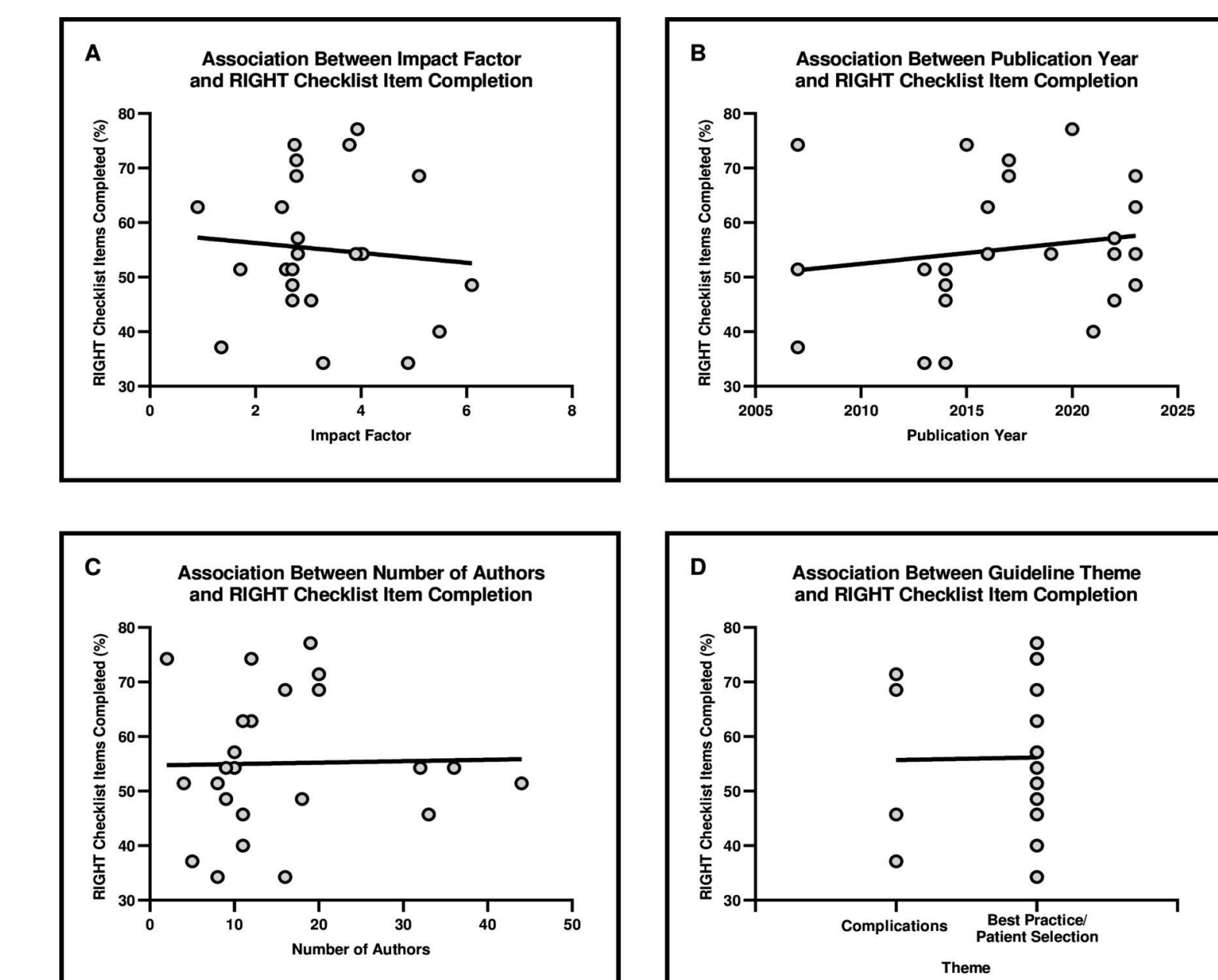
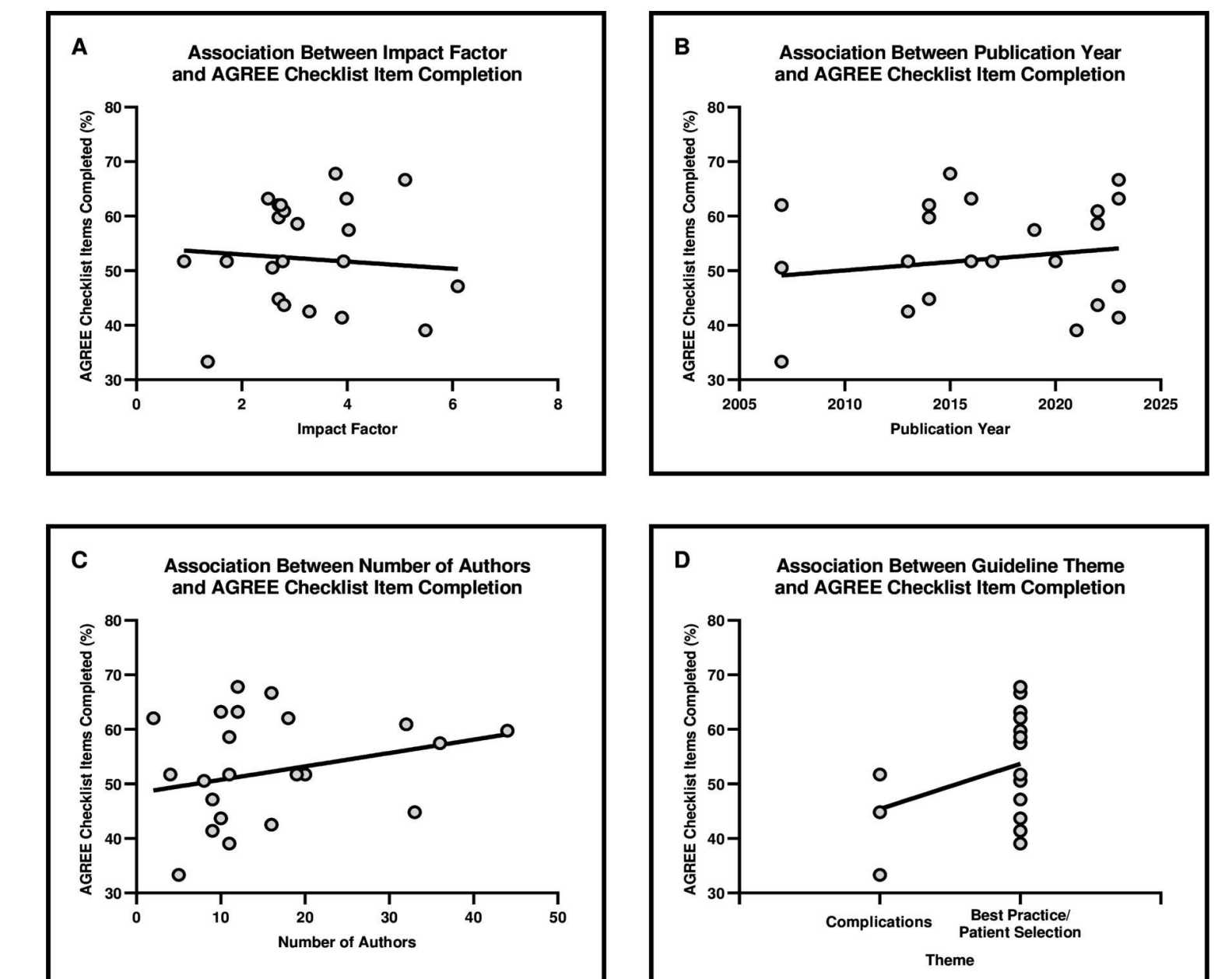


FIGURE 2



- No significant association between the percentage of completed RIGHT checklist items and journal impact factor, publication year, number of authors, or theme of guideline (Figure 1). This was also true for the AGREE checklist (Figure 2).

- The ICC value between the RIGHT and AGREE scores was 0.76 (95% CI 0.44 to 0.90), suggesting overlapping but distinct evaluation criteria.

CONCLUSION

- We highlight poor adherence to reporting standards within clinical practice guidelines for neurostimulation in chronic pain, as assessed by the RIGHT and AGREE checklists.

- On average, fewer than 60% of checklist items were met, with specific domains being severely under-reported.

- By identifying gaps in the reporting of key checklist items within existing guideline articles, this article can assist authors, editors, and peer reviewers to enhance adherence to reporting standards in future guideline articles.

REFERENCES

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