Abstract

Network meta-analyses (NMAs) are statistical analyses that integrate direct and indirect evidence from randomized controlled trials (RCTs) to compare multiple treatments simultaneously. However, high comparability between primary sources is typically required, and the availability of usable studies and the effort required for systematic research may limit the use of NMAs outside of medicine.

To address this issue, the present study used social network analysis on standardized keywords of medical articles related to $N = 100$ specific diseases (n = 50 with and n = 50 without NMA) to determine whether NMAs could be identified from the network properties of the research literature. The study found that the number of classical pairwise meta-analyses in research literature on diseases can be predicted well by MeSH network parameters, but no network parameter can specifically predict the presence of NMAs.

The author advocates for the inclusion of non-RCTs and studies with transitivity issues in NMAs, which can expand research scope and promote the use of NMAs outside of medicine. However, the quality of non-RCTs and studies with transitivity issues should be strictly checked to ensure data validity and reliability.