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Covidence. Covidence Pty Ltd, Level 10, 446 Collins ST, Melbourne VIC 3000, Australia; support@covidence.org; https://www.covidence.org/; pay per review.

Rayyan. Rayyan, 1 Broadway, 14th Floor Cambridge, MA, 02142 USA; https://www.rayyan.ai/; pay per user.

EPPI Centre. EPPI Centre, Social Science Research Unit, UCL Social Research Institute, 10 Woburn Square, London WC1H 0NS; eppisupport@ucl.ac.uk; https://eppi.ioe.ac.uk/cms/; pay per user.

Distiller SR. DistillerSR Inc, 505 March Road, Suite 450, Ottawa, Ontario, Canada, K2K 3A4; support@distillersr.com; https://www.distillersr.com/; contact for pricing.

RevMan. The Cochrane Collaboration, 11-13 Cavendish Square, London, W1G 0AN, United Kingdom; https://revman.cochrane.org/info; pay per user.

Systematic reviews are critical in evidence-based medicine, yet their execution demands substantial resources in both time and personnel. The growing volume of scientific publications, the adoption of increasingly rigorous methodological standards, such as PRISMA [1,2], the use of evidence-quality assessment tools [3] and the need of conducting exhaustive searches across multiple databases [4] have amplified their complexity and workload. This complexity underscores the need for specialized tools to optimize the review process. This analysis summarizes and compares the leading software for systematic reviews and meta-analyses, showing how an informed choice can enhance both efficiency and quality. To this end, we conducted a targeted literature review of the most commonly used software for systematic reviews and meta-analyses followed by a critical evaluation of their features to guide researchers in selecting the tool best suited to their needs.

The most widely used softwares for conducting systematic reviews are Covidence [5], Rayyan [6], EPPI-Reviewer [7], DistillerSR [8], and Review Manager (RevMan) [9].

Covidence is widely recognized for its intuitive interface —usually associated with a shorter learning curve— and its capacity to streamline screening and data extraction. As a web-based platform, it facilitates real time collaboration among team members. Its pricing model is based on a per-review fee, allowing unlimited users per project, an advantage for teams with many contributors. Rayyan, in contrast, offers a basic free version (with optional paid) and leverages artificial intelligence to accelerate screening and duplicate detection. It is particularly accessible and integrates well with reference managers. Its paid model is user-based, making it potentially more cost-effective for smaller teams. However, Rayyan lacks built-in functionalities for data extraction and quality assessment, which limits its utility beyond the initial screening phases. Despite these limitations, both Covidence and Rayyan are excellent, low-cost solutions for researchers prioritizing efficiency and collaboration in the early stages of a systematic review. Neither, however, offers meta-analysis capabilities.

For more advanced requirements, platforms such as EPPI-Reviewer or DistillerSR provide extended functionalities, including machine learning tools and comprehensive process automation. These solutions offer greater power and flexibility but are generally more complex, with steeper learning curves and higher costs. Their ability to integrate with other systems and workflows varies by platform. RevMan, the reference software supported by the Cochrane Foundation, stands out for its user-friendly environment for data analysis and writing. Although it lacks automation capabilities and robust screening functionalities, it includes built-in meta-analysis functions and generates standard graphs such as forest plots. Its limited interoperability with external applications, however, may be a constraint in more integrated or customized workflows. A detailed comparison of the features, strengths, and limitations of these platforms is provided in Table 1.

While it is theoretically possible to conduct a systematic review without dedicated software, doing so is inefficient, time-consuming, and increases the risk of error. Critical stages such as duplicate removal, study screening and quality assessment, data extraction, and collaborative analysis can benefit substantially from the use of specialized tools. The selection of a specific platform depends on multiple factors, including the complexity of the review, team size, budget constraints, required functionalities, acceptable learning curve, and compatibility with the researcher's existing digital ecosystem.

Importantly, the choice of software does not have to be limited to a single tool. An optimal workflow may involve the combined use of several platforms —such as employing Rayyan for its efficient screening capabilities, followed by export to RevMan for meta-analysis and reporting. Therefore, prioritizing and tailoring tool selection to specific needs of each phase is essential. Ultimately, the strategic use of appropriate software is critical to enhancing the efficiency of research teams and ensuring the methodological rigor and overall quality of systematic reviews.

CONFLICT OF INTEREST

The authors declare no conflicts of interest related to the content of this letter.

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Table 1

A comparative analysis of the features, strengths, and limitations of leading software for systematic reviews.

Key feature	Covidence	Rayyan	EPPI-Reviewer	DistillerSR	RevMan
Referral Management	✓	✓	✓	✓	⚠
- Import (from databases)	✓ (Multiple)	✓ (Multiple)	✓ (Multiple)	✓ (Multiple)	⚠ (RIS)
- Import (from reference managers, etc.)	✓	✓	✓	✓	⚠ (RIS)
- Automatic deduplication	✓	✓	✓	✓	✗
- Assisted manual deduplication	✓	✓	✓	✓	✗
Screening					
- Title/abstract screening	✓	✓	✓	✓	✗
- Full-text screening	✓	✓	✓	✓	✗
- Blind screening (multiple reviewers)	✓	✓	✓	✓	✗
- Conflict resolution	✓	✓	✓	✓	✗
- AI assistance (prioritization, etc.)	⚠ (ranking beta)	✓ (ML-based)	✓ (Active Learning)	✓ (Prioritization)	✗
Data extraction					
- Customizable forms	✓	✗	✓	✓	⚠
- Extraction by multiple reviewers	✓	✗	✓	✓	✓
- Comparison of extracted data	✓	✗	✓	✓	✓
Quality/risk of bias assessment	✓	✗	✓	✓	✓
- Built-in standard tools	RoB (Cochrane)	✗	RoB-2, AMSTAR, JBI	RoB-2, AMSTAR, JBI	RoB-2
- Customizable Checklists	⚠	✗	✓	✓	✗
Synthesis and analysis					
- Basic meta-analysis functions	✗	✗	EPPI-Mapper integration	✗	✓
- Generation of graphics (forest plot)	✗	✗	Basic (via EPPI-Mapper)	✗	✓
- Structured data export	✓ (CSV, RevMan)	✓ (CSV)	✓ (CSV, XML)	✓ (CSV, RevMan)	✓ (CSV)
Collaboration					
- Multiple simultaneous users	✓	✓	✓	✓	✓
- User roles and permissions	Basic	Basic	Advanced	Advanced	Basic
- Change tracking/auditing	Basic	✗	✓ (Detailed log)	✓ (Detailed log)	✓
Reporting and transparency					
- PRISMA diagram generation	✓	✓ (Beta)	✓	✓	✗
- Detailed audit trail	Basic	Basic	✓	✓	✓
Usability and support					
- Intuitive	High	High	Medium	Medium	Medium-High
- Documentation and tutorials	✓	✓	✓	✓	✓
- Responsive technical support	Medium	Limited	Medium	High	Medium
AI integration (beyond screening)	✓ (dedup, extraction)	✓ (auto-tagging)	✓	✓ (dedup, extraction)	✗
- Live revision support	✓	✗	✓	✓	✓
- Other Feature	API REST	Export to RIS/CSV	XML/JSON Export	API REST	Cochrane ecosystem integration
Costs	$	$	$$	$$$	$$
- Free version	Basic functions	Basic functions	✗	✗	✗
- Paid version	Pay per review (unlimited reviewers)	Pay per user	Pay per user + extra payment for sharing review	Contact supplier	Pay per user

✓, Present functionality; ⚠, Limited functionality; ✗, Absent functionality
RoB, Risk of Bias; ML, Machine Learning; Dedup, Deduplication

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