

Peer Review

Review of: "Effect of Animal-Assisted Activities on Symptoms and Emotions of Children with Neoplastic Disease: A Systematic Review with Meta-Analysis"

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This systematic review and meta-analysis addresses an important and increasingly relevant topic in pediatric oncology, evaluating the potential role of animal-assisted activities (AAAs) as supportive nonpharmacological interventions for children with neoplastic diseases. The manuscript demonstrates several notable strengths, particularly its rigorous adherence to PRISMA reporting standards and registration of the protocol in PROSPERO, which enhances methodological transparency and reduces the risk of selective reporting. The comprehensive multi-database search strategy, inclusion of grey literature, and absence of language restrictions further strengthen the review's comprehensiveness and reduce the likelihood of search bias.

Another major strength of the study is the decision to restrict inclusion to randomized controlled trials, which increases the internal validity of the evidence synthesis compared to prior reviews that combined heterogeneous study designs. The use of validated methodological tools, including RoB 2 for bias assessment and GRADE methodology for evaluating certainty of evidence, reflects a high level of methodological rigor. The statistical approach, including the use of random-effects meta-analysis, standardized mean differences, heterogeneity assessment, and attempts to estimate clinical relevance through number-needed-to-treat conversion, demonstrates a thoughtful and technically sound analytical framework.

The manuscript also provides valuable contextual discussion regarding infection control considerations, theoretical mechanisms underlying human-animal interaction, and practical implementation issues in

pediatric oncology settings. The clear distinction between animal-assisted activities and animal-assisted therapy is particularly helpful and enhances conceptual clarity within the field.

Despite these strengths, several limitations reduce the overall robustness and interpretability of the findings. The meta-analysis includes only three randomized trials with relatively small sample sizes, limiting statistical power and contributing to wide confidence intervals and low certainty of evidence. Considerable heterogeneity in intervention protocols, duration of exposure, outcome measurement tools, and patient clinical characteristics further complicates interpretation of pooled results. In particular, the absence of standardized descriptions of “standard of care” across included studies limits comparability between intervention and control groups.

Declarations

Potential competing interests: No potential competing interests to declare.