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A systematic review of epidemiological studies on the prevalence of complementary and alternative medicine (CAM) use by pediatric cancer patients.

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Purpose and Background: Pediatric cancer patients are likely to use complementary and alternative medicines (CAM) alongside more conventional interventions. A number of individual studies have been carried out to examine prevalence rates of CAM use among pediatric cancer patients. These studies have varied findings and are of mixed quality. This meta-analytic review therefore aimed to assess the quality of this literature and to determine what is known about the prevalence of CAM use in pediatric cancer. Secondary research questions focused on the types of CAM used, trends in CAM use over time, reasons for CAM use, and demographic characteristics associated with CAM use.

Method: Electronic and manual searches for relevant studies identified 26 English-language journal articles of primary research studies investigating the prevalence of CAM usage among pediatric cancer patients in peer-reviewed journals. A Quality Assessment Checklist was rigorously developed based on the Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) Statement in collaboration with Dr Erik von Elm (lead author of the STROBE Statement). Data was extracted and validated by more than one author and analyzed using meta-analytic techniques.

Results: The prevalence of CAM use by pediatric cancer patients ranged from 40% to 53%. The quality of the studies was mixed and did not correlate with the estimated prevalence of CAM use. "Herbals" was the most popular CAM modality. Pediatric cancer patients use CAM for various reasons. Higher level of education and income were associated with CAM use in North America; the opposite was true for CAM use in Mexico and Turkey.

Conclusion: A substantial proportion of pediatric cancer patients use CAM. There is a need to use standardized definitions of CAM in future studies to generate comparable data. The Quality Assessment Checklist has potential to be a useful quality assessment instrument for other reviews of similar epidemiological studies.