A comprehensive review of the ethnobotanical, phytochemical, and pharmacological properties of the genus Bambusa

ABSTRACT

Throughout Africa, China, India, and other parts of the world for ages, the genus Bambusa (Poaceae) has been utilized in folk medicine. Various studies have concentrated on the ethnobotany, phytochemistry, and pharmacology of Bambusa spp. in recent years. This scoping study employed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses guideline to analyze articles published from 2003 to 2021 on Bambusa spp. The articles were also retrieved from the Scopus database. As a result, 97 articles were selected based on the criteria given: 50 articles for the ethnobotanical aspect, 11 articles for the phytochemical aspect, and 44 articles for the pharmacological aspects (including 8 similar articles from other aspects). A large variety of pharmacological activities, including antioxidant, anti-inflammatory, antibacterial, antifungal, antimalarial, anticancer, antidiabetic, abortifacient, and cytotoxicity activities, were found in the crude extracts and purified bioactive components of Bambusa spp. Alkaloids, flavonoids, phenolics, terpenoids, and other compounds have all been isolated and named from Bambusa spp. Bambusa spp. have a sizable worldwide marketplace due to their outstanding medicinal benefits and minimal toxicity, which has sparked increased attention from academics. Nevertheless, there is no available review article that has compiled all the information regarding the utilization and properties of Bambusa spp. Hence, this review aims to identify and reveal the widely used Bambusa spp. that have grown worldwide. The review mainly summarizes the phytoconstituents and their corresponding pharmacological properties, which are significant in providing a collective scientific evaluation of Bambusa spp. for the development and utilization of a potential novel ethnomedicine.