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Phytochemical and nutritional composition of commonly used plants for the treatment of dysmenorrhoea in Ilorin, Kwara State

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Ethno botanical study revealed *Annona senegalensis*, *Axonopus compressus*, *Gongronema latifolium*, *Lacosperma secundiflorum*, *Mitragyna inermis*, *Piliostigma thonningii*, *Piliostigma reticulatum*, *Senna podocarpa* and *Trema orientalis* as the most frequently used medicinal plants in the treatment of dysmenorrhea in Ilorin. Phytochemical and nutritional composition analysis was carried out using standard procedures. Results revealed that the plant materials were preserved dry and the common method of preparation is decoction. The phytochemical screening confirmed the presence of alkaloids, anthraquinones, cardiac glycosides, flavonoids, polyphenols, saponins, tannins and terpenoids in all the plants however, anthraquinones and cardiac-glycoside were absent in *P. reticulatum* while terpenoid and polyphenol were also not present in *T. orientalis*. Proximate analysis showed that *S. podocarpa* (39.83 ± 0.02) had highest dry matter content, ash content was high in *G. latifolium* (65.60 ± 0.02) and protein was high in *M. inermis* (14.21 ± 0.02) while *T. orientalis* (36.24 ± 0.02) was high in crude fibre. There is significant difference in the percentage ash, crude fibre, dry matter, ether extract and protein content at $p < 0.05$. Nevertheless, the crude fibre content varies among the species: No significant difference between *G. latifolium*, *P. thonningii* and *S. podocarpa* (a); *P. reticulatum* and *A. compressus* (b); *A. senegalensis* and *T. orientalis* (cd) and *L. secundiflorum* and *M. inermis* (bc). Saponins, polyphenols and cardiac glycosides are responsible for the relief of muscle contractions in the uterus for easy flow of the blood. Flavonoids are significantly recognized for their anti-oxidant which helps to reduce pains due to oxygen received in the uterus. Likewise, alkaloid are analgesic, anti-inflammatory and improves blood circulation while terpenes also have antibiotic, antiviral, anti-parasitic and antifungal properties Hence, the synergistic effects of plant/herb recipes play a noteworthy role in the treatment of dysmenorrhoea and several ailments in human.

Biography

Adeyemi Sherif Babatunde has his expertise in ethno botany and medicinal plant research. He is a lecturer of University of Ilorin and pursuing PhD from Uka Tarsadia University, India. He has published articles in both local and international journals about the usage and provision of scientific insight to the usage of medicinal plants in Nigeria.

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