

Medicinal plants used for the treatment and management of malaria in Zimbabwe - review and perspectives.

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Abstract

Background: Malaria is a global health problem that has been bedeviling many countries for millennia. Estimates suggest that over 90% of all malaria infections and deaths occur in Africa, with a 75% mortality in children. The world is struggling to effectively respond to this malaria crisis in part due to the growing *Plasmodium falciparum* drug resistance. Traditional medicinal plants have been used as alternative and complementary medicine, due to their ease of accessibility and low cost.

Methods: Extensive literature search focused on published abstracts and papers accessed from online databases, scientific reports, book chapters, textbooks and theses available in repositories at Zimbabwe Universities.

Results: In total, 70 species of plants belonging to 35 families have been used to treat and manage malaria in Zimbabwe. The family with the highest number of medicinal plants used in Zimbabwe was the Fabaceae family, represented by a total of 10 species. The dominant plant parts used in the preparation of remedies were roots (43%). About 75.7% of the antimalarial plants reported have been scientifically validated and documented to exhibit anti-plasmodial activity. In-vitro anti plasmodial activity reports of 22 of the plants extracts exhibiting high anti-plasmodial activity towards *P. falciparum*.

Conclusions: While this review concentrates on the identification of antimalarial plants documented in previous studies in Zimbabwe including their pharmacological and toxicological profiles. More definitive research into the mechanisms of action, as well as pharmacodynamic and pharmacokinetic profiles, could significantly contribute to the standardisation of herbal preparations.

Keywords: Herbal medicine Ethnobotanical, ethnomedicine, pharmacological, toxicology, traditional plants, malaria, Zimbabwe, *Plasmodium falciparum*