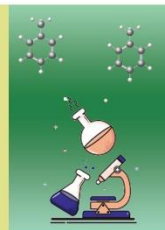


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Medicinal Flora and Local Knowledge on Shoulder Pain Relief in Ilam City, Western Iran: An Ethnobotanical Study

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ABSTRACT

Introduction: Shoulder pain is a common musculoskeletal problem resulting in functional impairment, reduced life quality and high health care costs. Traditional plant-based treatments continue to play a vital role in regions with restricted access to conventional healthcare although they lack proper documentation. The research investigates traditional medicinal plants and local treatment methods which people in Ilam city western Iran use to treat shoulder pain.

Methods: A cross-sectional ethnobotanical survey took place from April through November 2024 in Ilam city, western Iran. The research team conducted semi-structured interviews with 25 traditional healers who were recognized in their community. The research team obtained voucher specimens which underwent authentication procedures. The study used ethnobotanical indices to calculate use reports (UR) and relative frequency of citation (RFC) and percentage frequency of use (PFU) and informant consensus factor (ICF).

Results: Eleven identified medicinal species were identified by the informants from 9 botanical families which they used to treat shoulder pain. The most frequently used plant parts for treatment were aerial parts and the most common preparation method involved infusions. The total number of use reports (Nur) was 63 and the ICF value of 0.84 indicated strong agreement between informants. The highest citation values were found in *Datura innoxia* (UR=8, RFC=0.32, 95% Wilson CI=0.172–0.516), followed by *Medicago polymorpha*, *Crocus haussknechtii*, and *Ziziphora capitata* (UR=7, RFC=0.28).

Conclusion: The research used index-based ethnobotanical methods to identify culturally significant plant species in Ilam city which need further phytochemical and pharmacological assessment for shoulder pain treatment. The study documents and analyzes local practice, highlights species that require urgent toxicology, and underscores the need for conservation and ethically governed translational research.

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