## ABSTRACT

The ethnobotanical investigation of District Kot Addu's natural flora offers important insights into the native knowledge systems and the cultural importance of local plant species. This study looks at how local populations have traditionally used native flora, with an emphasis on material, dietary, and medical purposes. Plant species, their applications, and the cultural practices related to them have been documented through field surveys and interviews with local herbalists and community members. Medicinal plants serve as a valuable source of bioactive compounds, and many human ailments are treated using plant-based remedies. The primary objective of this study is to document the traditional use of medicinal plants by indigenous communities in District Kot Addu, Pakistan, with a specific focus on the health challenges faced by the local population. Ethnobotanical data has been collected from 150 local informants through field surveys, where questionnaires and faceto-face interviews were employed to gather information. Several quantitative measures have been applied to analyze the collected data, including use value (UV), informant consensus factor (ICF) and fidelity level (FL). The study revealed that the local people frequently used 103 plant species from 38 families for various purposes. The identification and preservation of these plants has been supported by references to the Flora of Pakistan and Flora of Punjab. The Poaceae and Fabaceae families have been the most frequently reported, with 14 species each. Ethnobotanical findings indicated that 55% of the plants were used medicinally, 5% for fodder, 16% for food, 8% as ornamental plants, 9% for timber, 4% for making hand fans and baskets, and 3% as insect repellents. Among the 138 identified plant species, 26 were trees, 65 were herbs, and 12 were shrubs. Pie charts were usd to visually present the various ethnobotanical uses of these plants.