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School learners' knowledge and views of traditional medicinal plant use in two regions in Namibia

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INTRODUCTION

Local knowledge about natural resources that may be of use to communities, including medicinal plants, is becoming increasingly important globally. This knowledge is important for the participation of indigenous peoples in the conservation and maintenance of indigenous forests (Gazzaneo, de Lucena, & de Albuquerque, 2005) in addition to the frequent use of these resources in the treatment of common ailments and diseases.

Knowledge about the use of local fauna and flora, nowadays, is minimal. To ensure the preservation of indigenous knowledge, this state of affairs needs to be rectified. In fact, Teklehaymanot, Giday, Medhin and Mekonnen (2007, p. 272) note that 'traditional knowledge is rapidly eroding', hence, there is real danger that if something is not urgently done, this knowledge might be lost for good. This is due to the fact that often indigenous knowledge is passed on from older to younger generations orally, and is not documented. According to Kambizi and Afolayan (2006), it is essential to make an effort to avoid the loss of this important knowledge in order to conserve medicinal plants, especially in rural communities. There is an increasing advocacy for the integration of indigenous knowledge into mainstream science curricula.

School can play an important role in ensuring this knowledge is not lost. The school is thus seen as a conduit through which this knowledge could be passed from one generation to the next. One way of doing this is to integrate indigenous

knowledge systems (IKS) into the mainstream science curriculum in our schools so that it is taught formally (Onwu & Mosimege, 2004).

This chapter presents research findings from a study of the views and knowledge of junior-high-school learners in the Omusati and Oshana regions of Namibia on the use of medicinal plants and how such knowledge could be integrated into the school science curriculum. The study addressed the following research questions: What views do junior-high-school learners have on the use of traditional medicinal plants for the treatment of common ailments? What knowledge do they have of traditional medicinal plants used for treatment of common ailments? How do they think such knowledge should be integrated into the science curriculum?

BACKGROUND

The study of African medicinal plants has not been documented as fully as Indian and Chinese treatments, although more than 5,000 plants are known to be used for medicinal purposes on the African continent (Taylor, Rabe, McGaw, Jäger, & van Staden, 2001). However, in recent years, several studies have been conducted on traditional medicinal plants in relation to their knowledge and use (Teklehaymanot et al., 2007); the impact of their use on conservation (Kambizi & Afolayan, 2006); scientific validation of their efficacy (Taylor et al., 2001; Chinsembu & Hedimbi, 2010; Cheikhyoussef, Shapi, Matengu, & Mu Ashekele, 2011), as well as the integration of indigenous knowledge into African school science curricula (Mpofu, Vhurumuku, Kapenda, Kasanda, & Dudu, 2011).

According to Teklehaymanot et al. (2007), Ethiopia has about 800 species of plants that are used in the traditional healthcare system to treat nearly 300 mental and physical disorders. Teklehaymanot and colleagues carried out a study around the Debre Libanos Monastery (Ethiopia), which involved 250 villagers, 13 monks and three nuns. They used semi-structured questionnaires to interview the participants on the 'knowledge and use of medicinal plants' in their area. Their results showed that the villagers had knowledge on traditional medicines, especially on the use of plants that were used to treat diseases characterized by fevers, headaches and sweating; *Herpes labialis* (cold sores); muscle spasms or *mich*; intestinal illnesses and parasites; problems related to rabies; and unidentified swellings and cancers. Unfortunately, the monks and nuns refused to give information on the known medicinal plants and their uses, although they were perceived to be resourceful informants.

According to Taylor et al. (2001), there is an increasingly pressing demand to develop new effective drugs. Hence, traditionally used medicinal plants are receiving the attention of pharmaceutical and scientific communities. Taylor et al. (2001, p. 32) carried out an intensive study to scientifically validate the use