Background: Research on medical ethnobotany shows that ordinary community members in the rural areas have knowledge of self-preventive care which is accomplished through administration of plant medicine to prevent the onset of disease and create a sense of well-being. Several medicinal plants and traditional medicines derived from them have been used to enhance resistance to several disease agents. The present study documented the indigenous plant-derived medicines used by Mohlaletsi community members to minimize the chances of contracting disease thus promoting good health and well-being.

Materials and Methods: Structured interviews were used to collect data among 80 respondents purposely sampled to share knowledge about the use of indigenous plant-derived medicine for preventive health care.

Results: The results of the study revealed six indigenous plant species belonging to six families identified as sources of medicine administered for preventive care of primary health care. Preventive medicine is prepared from the mixture of plant parts administered to limit susceptibility to disease and improve the general well-being. The medicine is repeatedly reported to promote good health and well-being of the children by limiting the children’s vulnerability to disease and promote their welfare.

Conclusion: Ordinary community members use plant-derived medicine to prevent attack by disease in an effort to promote good health and well-being. This type of preventive care may form the basis for community participation towards the achievement of primary health care needs in the rural areas.

Key words: Preventive health care, health promotion, preventive medicine, well-being, Limpopo Province.
Mohalelets community falls within Fetakgomo Local Municipality in Sekhukhune District in Limpopo Province, South Africa. Sekhukhune is a place of majestic beauty with legal mountains, lush valleys and meandering rivers. The climate is fairly typical of the Savanna Biome with warm, moist summers and cool, dry winters. The mean annual rainfall ranges from 400 mm in the valleys to 600 mm on the mountain slopes and mean summer temperatures from 25°C. The area is home to more than 2200 indigenous species of vascular plants, making it an area of exceptionally high biodiversity that is globally recognized. Many plants used in traditional medicine are slow-growing and, once lost, are unlikely to return to the area. Their presence depends on sustainable harvesting as well as the maintenance of vegetation condition. Medicinal plant species in degraded grasslands also occur in pristine grasslands (Sekhukhune District Municipality Integrated Development Plan [IDP], 2014/2015).

A small number of community members depend on staple crops as their major food source which they have to supplement with indigenous plants which are harvested to provide the additional dietary requirements of a balanced intake. A large amount of biomass is harvested green and cooked for everyday requirements. Many indigenous species have potential as food, but they have to be sufficiently abundant and accessible to come into everyday use. Community members have relatively easy access to health care facilities. Primary health care is obtained in the clinic and hospital. HIV/AIDS strategy is developed and implemented to guide public interventions in the area. The Sekhukhune HIV/AIDS Council is launched to make awareness raising, support for people living with HIV/AIDS and care for children in distress (Statistics South Africa, 2011).

Ethnobotanical Survey

Fieldwork was carried out between January and December 2014. Data were collected through interactions with a sample of 80 respondents (36 men and 44 women) randomly selected in Mohalelets community. The respondents were ordinary community members aged between 65 and 90 years. This sample was purposely constituted to examine the extent of indigenous plant-derived medicine use for preventive health care. Selection of the respondents was informed by observations that ethnobotanical knowledge and indigenous systems of health care are held by elderly members of the community (Lawal et al. (2014; Semenya and Potgieter, 2014).

The interview schedule was developed and validated by botanists in the host institution to collect information about the indigenous plant species used by ordinary community members to make preventive medicine. The research questions included the local name of the plant species, part of the plant used, method of preparation and administration for preventive care. The questions were developed in English and translated to Sepeedi by a language translation expert. Medicinal plant species identified by the respondents were collected from the local wild. The voucher specimens of the species were collected and submitted to the host institution herbarium for identification. The voucher specimens are deposited in the herbarium for future reference. Microsoft Excel 2007 version was used to generate data. The information collected during the study and the identities of the respondents remained anonymous.

Results and Discussion

Indigenous Plant-Derived Medicines Administered for Preventive Care

The study revealed six plant species belonging to six families which are source of medicine administered to prevent susceptibility to disease. The list of the species is presented in Table 1. The table presents each species’ scientific name, family name, habit and the part used to make the medicine administered for preventive care. The species are alphabetically arranged by scientific names. Of the six species, three were identified by respondents of age 78 and above only. This observation is attributed to the observation that parents and grandparents are reluctant to pass their knowledge of medicinal plant use to their offspring because they shun traditional medicine (York et al., 2011; De Wet and Ngubane, 2014). The respondents reported that they have learnt to use plant-derived preventive medicine from their parents and relatives. Of the respondents, 22 reported that being born into a family where self-care was experienced from an early age, and the fact that a family member in the household provides health care to the people; knowledge about the disease and how it could be avoided, is known to almost all family members. Thirty four elderly women mentioned that they administer plant-based preventive medicine to maintain the well-being of their family members and in rare instances, they offer help to other people particularly when requested to assist. This knowledge is derived from community members’ extensive knowledge of the ecology and medicinal properties of the local flora (Negi and Palyal, 2007). Furthermore, this knowledge is derived from centuries of use within families; and every community member had their own lists of medicinal plants for prevention of particular disease or disorder (Ahmed and Azam, 2014). De Wet and Ngubane (2014) observe that among the Zulu of South Africa, this type of knowledge is passed verbally and through practice to the offspring.

Table 1: List of plant species harvested as sources of preventive medicine

<table>
<thead>
<tr>
<th>Scientific name</th>
<th>Family name</th>
<th>Habit</th>
<th>Part</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amaranthus hybridus (sebjane)</td>
<td>Amaranthaceae</td>
<td>herb</td>
<td>root</td>
</tr>
<tr>
<td>Berchemia discolor (monoko)</td>
<td>Rhamnaceae</td>
<td>shrub</td>
<td>root</td>
</tr>
<tr>
<td>Cadaba aphylla (monna-motsho)</td>
<td>Capparaceae</td>
<td>herb</td>
<td>root/leaf</td>
</tr>
<tr>
<td>Drima robusta (phaya-basimane)</td>
<td>Hyancinthaceae</td>
<td>herb</td>
<td>bulb/leaf</td>
</tr>
<tr>
<td>Rhoicissus tridentate (mopidikwa)</td>
<td>Vitaceae</td>
<td>herb</td>
<td>tuber</td>
</tr>
<tr>
<td>Siphonochilus aethiopicus (seroko)</td>
<td>Zingiberaceae</td>
<td>herb</td>
<td>bulb</td>
</tr>
</tbody>
</table>
Preventive Health Care

The respondents reported the use of plant-derived medicine to limit susceptibility to disease in small children and adults. Knowledge of the use of plant-derived preventive medicine for preventive care was observed among the respondents. The roots of *Berchemia discolor* and the tubers of *Rhoicissus tridentata* are ground and rubbed on the body to render children immune to infectious diseases. When the outbreak of whooping cough and measles is announced, the same medicine is applied on the child’s body to decrease the chances of contracting the disease.

The bulb of *Siphonochilus aethiopicus*, the leaves and bulb of *Drima robusta* and the root of *Cadaba aphylla* are crushed, ground and mixed together and applied on all body parts to limit attack by measles.

Preventive medicine is also prepared from the root of *Berchemia discolor* and the roots of *Amaranthus hybridus*. The different plant parts are burnt, mixed with animal fat and rubbed into the body to render a new born baby immune and strengthen its well-being. Another health promotion medicine is derived from a mixture of the roots of *Berchemia discolor* and *Cadaba aphylla* and the bulb of *Siphonochilus aethiopicus*. The plant parts are crushed and wrapped into a piece of cloth which is sewn and put around the neck of a child to render it less susceptible to disease.

The bulb of *Siphonochilus aethiopicus* makes a strong preventive medicine. The bulb is chewed and the resulting medicine is rubbed on the body parts for prevention against defilement which is the most common cause of disease such as stomach-ache, roaming stomach, diarrhoea and headache. Lawal et al. (2014) reported this type of preventive health care practice as the most prevalent throughout Africa.

The methods of making plant-derived preventive medicine range from crushing, grounding and burning of plant parts. These methods find support in Abera’s (2014) observation that among the Oromo people of Ethiopia, crushing, grounding and burning of plant parts are effective for complete extraction of the potential content of the plant and increase the power of the medicine or its efficacy. The study revealed a combination of the plant parts to prepare preventive medicine. York et al. (2011), De Wet et al. (2013), Ahmed and Azam (2014) prove that plant part mixtures increase the quality and efficacy of medicines.

Conclusion

Ordinary community members use plant-derived preventive medicine to limit the chances of contracting disease to promote good health and well-being. Preventive medicine is mostly used to promote good health and well-being of the children. The medicine is applied to limit the children’s susceptibility to disease to promote their welfare. Most importantly, the study reflects continued reliance on indigenous plant-derived medicine which implies that knowledge of the use of indigenous plant medicine is transmitted throughout generations as part of the community’s cultural heritage. The indigenous plant-derived medicines used for preventive care could be tested of their safety and efficacy, and validated and used to enable community members have control of their lives and well-being. This type of preventive care may form the basis for community participation towards the achievement of primary health care needs in the rural areas.

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References


