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Knowledge and Practice of *Ubar Kampung* by the Sundanese Community in Kecamatan Pangalengan, West Java, Indonesia

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Abstract

The people of Sundanese, the largest ethnic group in West Java, have been using traditional medicine known as *ubar kampung* for a long time. The study aims to document the indigenous medical knowledge and practice of among Sundanese community. An exploratory study was conducted on the indigenous medical knowledge of Sundanese community living in Pangalengan, West Java. A total of 357 inhabitants living among 81 households were interviewed using structured and semi-structured questionnaire. Among 357 household members 156 members reported experience of illness in the past 12 months. This study indicates that the traditional medicine is well functioning in the area. Majority of respondents hold much knowledge (57.1%) and belief (58.3%) on *ubar kampung.* Most of the respondents are able to name the component of traditional medicine, which include the name, use of MAC plants and the recipe to make the *ubar kampung*. 115 MAC plants for promotion of the general health and several ailments were reported by key informants and community members in the research area. The majority of the plant species used for the medicinal purposes belong to the family *Asteraceae*, *Lauraceae*, and *Liliaceae*. Inhabitants in the research area sometimes combined several ways in preparing medicinal plants for health treatment generally in the forms of infusion (40.4%). Most of the medicinal plants reported by key informants and used by the respondents in the research area are already publicly acknowledged for their medicinal properties and also reported in other research settings.

Keywords : Medicinal plants, indigenous knowledge, Sundanese, sustainable use

Introduction

Indigenous knowledge (IK) plays a central role in disease diagnosis and healthcare practices in traditional medical system worldwide (Zuberi, 2004). Over the centuries, medicinal plants have been used by most of the Indonesian people for health enhancement and the treatment of diseases (Elfahmi *et al.* 2014; Roosita *et al*., 2008). Yusro *et al.* (2014) report that 78 species of plants have been used by 34 ethnic groups in Indonesia for the treatment of malaria; 133 species are used by 30 ethnic groups for the treatment of common fever, and 110 species have been used by 30 ethnic groups for the treatment of gastrointestinal disorders. Those rich potentials of biological resources in Indonesia, integrated with knowledge of plants utilisation by various ethnic group in Indonesia, creating a knowledge system including traditional medical knowledge or ethnomedicine (Ramdhan *et al*. 2015). Different environment, tradition, manner and also behaviour establish variation in the traditional medical knowledge among each of ethnic groups in Indonesia (Waluyo, 2004).

Every community and ethnic groups in a certain area has its local knowledge and wisdom in utilising biological resources to support their life. The people of Sundanese, the largest ethnic group in West Java, have been using traditional medicine for a long time. Known as *ubar kampung*, Sundanese indigenous knowledge, belief and practice of the traditional medicine is based on the local people's knowledge and use of Medicinal, Aromatic, and Cosmetic (MAC) plants. MAC plants have continuously provided Sundanese community practical and readily available traditional medicine. The use of plants in religious ceremonies and medicinal purposes is very common and widespread among the Sundanese community.

Despite the remarkable contribution of indigenous medical knowledge in the society, the practical utilisation of indigenous resources at the community level hardly been the focus of the research. The practice of Sundanese traditional medicine in West Java is at risk of being lost. Theoretical and contextual problems have been hampering the comparative study of the relationship between medicine, culture, and its society, resulting in lack of understanding of health service delivery in Indonesia (Slikkerveer & Slikkerveer 1995).

To address the lack of study on indigenous knowledge this study aims to assess medicinal practice and document indigenous knowledge of Sundanese community. The study presents the documentation of the traditional medical practices of Sundanese community in Kecamatan Pangalengan.

Methods

The study was conducted in Kecamatan Pangalengan, Kabupaten Bandung, West Java. Kecamatan Pangalengan has been endowed with a rich plant diversity base because of its heterogenous ecologies condition fertile land, cool and humid climate. In general, the characteristics of Kecamatan Pangalengan, in the context of bio-cultural diversity, provide a valuable resource for the study of people's behaviour and their interaction with the natural environment.

This study has been approved by Ethical Committee Universitas Padjadjaran No.Reg 0617060773 and Badan Kesatuan Bangsa dan Politik, Kabupaten Bandung, West Java, Indonesia. After the approval was obtained, then the strategies of sampling

the target population are determined. Since this study targets the information at the individuals' level, the sampling method implements the combination of non-probability and probability sampling techniques. The data collection is focused on the knowledge-belief-practice of *ubar kampung*. Interview techniques used in the present study are the structured, the semi-structured, and the unstructured interview.

The two strands of field data were, to some extent analysed separately, using the methods typical of each approach. The demographic characteristics were presented for all the household members (N=357), while knowledge, belief, and practice of *ubar kampung* were presented for the number of the respondents who have experienced illness in past 12 months (N=156). Qualitative data regarding the use of *ubar kampung* were presented in the narrative form. Nevertheless, some of the statistical analysis the results and qualitative finding are combined in various ways during the report writing.

Results

Demographic characteristics of the respondents

Kecamatan Pangalengan is located in the northern part of Kabupaten Bandung. It covers 27.294,77 hectares in total, of which 4.805,69 hectares is used for tea fields. Pangalengan is well-known for its cow farms, tea plantations, and Cikondang traditional village (Official Website of Pangalengan, 2017).

The sample in this research consists of 357 inhabitants living among 81 households. Among 357 household members 156 members reported experience of illness in the past 12 months. Descriptions of the demographic characteristics of the sample are provided in Table 1.

Table 1 indicates that the distribution of male (49.6%) and female (50.4%) population is almost equal. In general, most of the household members (77.6%) were born in the village where they are currently living. This finding is also supported by residential status reported by the community members which majority of the respondents are native inhabitants.

In relation with the dependency ratio, the distribution of the age based on productivity is shows that majority of the sample are still in the productive age. The majority of the respondent is married (58.5%) and only a minor percentage of the respondent are divorced (0.6%). The relatively low occurrence of divorce in the research villages are seemingly related to the social esteem and pride associated with marriage in rural communities.

Furthermore, another important component in demographic composition with relation to social significance occupation and level of education. In the research area, majority of the respondent (49.0%) completed basic education (until Senior High School). The children under the age of twelve belong to the category 'other' as in general, the children start basic school at the age of six then complete the six years basic school at twelve years old.

Table 1. Demographic Characteristics of the Sample in the Research Area

Characteristics		N	%
Gender	Male	177	49.6 %
	Female	180	50.4 %
Age	<45	242	67.8 %
	45 - 65	83	23.2 %
	> 65	32	9.0 %
Place of birth	In this village	277	77.6 %
	In another village	49	13.7 %
	In another municipality	27	7.6 %
	In another province	4	1.1 %
Residential status	Native inhabitant	326	91.3 %
	Migrant	25	7 %
	Temporary inhabitant	6	1.7 %
Education	Primary education	175	49.0 %
	Secondary education	117	32.8 %
	Higher education	37	10.4 %
	Others	28	7.8 %
Marital status	Single	126	35.3 %
	Monogamy Marriage	209	58.5 %
	Widow/Widower	20	5.6 %
	Divorced	2	0.6 %
Occupation	Farmer	73	20.4 %
	Labour worker	56	15.7 %
	Civil servant	11	3.1 %
	Self-employed	27	7.6 %
	Un-employed	190	53.2 %
Total		357	100.0 %

The distribution of occupation in Table 1 shows that the majority of the household head of the respondents are working as a farmer (20.4%). Category un-employed also refers to housewife and children who are not economically active.

Indigenous Knowledge and Practice of Ubar Kampung

Indigenous knowledge of plants provides a valuable indication of the use of plants for several ailments. In several regions, local knowledge including plant species is gradually disappearing. In view of knowledge, belief, and practice of *ubar kampung*, the respondent in the research area commonly familiar with the medicinal plants. The distribution of the knowledge of *ubar kampung* among respondents is presented in the Table 2.

Table 2. Distribution of Knowledge of *Ubar Kampung* in the Research Area

Level of Knowledge	N	%
A little knowledge	27	17.3 %
Average	40	25.6 %
Much Knowledge	89	57.1 %
Total	156	100.0

Table 2 indicates that majority of respondents (57.1%) hold much knowledge of *ubar kampung*. Most of the respondents are able to name the component of traditional medicine, which include the name, use of MAC plants and the recipe to make the *ubar kampung*.

Likewise, as traditional medicines are deeply rooted in cultural preference, belief in traditional medicine become one of the reasons to use traditional medicine among the Sundanese community. The distribution of belief on traditional medicine among community members in the research area is presented in Table 3.

Table 3. Distribution of Belief on *Ubar Kampung* in the Research Area

Level of Knowledge	N	%
A little belief	29	18.6 %
Average	36	23.1 %
Much belief	91	58.3 %
Total	156	100.0 %

Table 3 indicates that the majority of the respondent in the research area holds much belief in the efficacy of traditional medicine. In the present study, 115 MAC plants for promotion of the general health and several ailments were reported by key informants and community members in the research area. The majority of the plant species used for the medicinal purposes belong to the family *Asteraceae*, *Lauraceae*, and *Liliaceae*. In the research area, a number of MAC plants such as aloe vera, orthosiphon, and ginger are commonly planted in the home garden. While other plants are usually obtained from the traditional market.

Inhabitants in the research area sometimes combined several ways in preparing medicinal plants for health treatment. The information about the preparation of medicinal plants is presented in Table 4.

Table 4. Herbal preparations by patients in the research area

Means	N	%
Fresh plants	45	28.8 %
Dried plants	26	16.7 %
Boiled	63	40.4 %
Other	22	14.1 %
Total	156	100.0 %

To facilitate the administration of the active constituents of the medicinal plants, respondents in the research area employ several types of herbal preparations. While some plants are used in a fresh condition, immediately after collection, most of the plants are usually used in dried forms. For the drying process, parts of the plants are usually spread in a *tampah*. The medicinal plant is either consumed as a single preparation or in a combination of several plants.

The method of preparation of the plants is sometimes different between communities. In general, the concoction is the most common preparation in the research area. The frequent used of concoction or infusion makes it possible to extract the most active constituents from the plants. To prepare an infusion, usually, the dried part of plants, commonly leaves, are soaked in a glass of hot water for 5 – 10 minutes, while for thicker parts such as bark or rhizome, the dried plant's parts are boiled in water for at least 15 minutes after the water reach its boiling point.

Discussion

From ancient literature to recent scientific records, it has become evident that plants are the source of people's healthcare around the world. Several indigenous medicinal systems such as Ayurvedha, Siddha, Unani and Allopathy employ numerous plant species for the treatment of diseases (Surya *et al*. 2014).

Most Sundanese, especially in the rural area rely on traditional medicine or traditional healers for the treatment of common illness. Medicinal plants are easily obtained from their home garden which is called *Apotek Hidup* (Living Pharmacy) or from the nearby forest. Slikkerveer & Slikkerveer (1995) describe that the use and cultivation of medicinal plants for the family (*tanaman obat keluarga* or TOGA), which support the concept of self-reliance in family health, has contributed to building up the knowledge of medicinal plants among the local people. The conversion of the local traditions and indigenous knowledge into livelihood has the benefit of preserving indigenous knowledge which is gradually vanishing (Negi *et al.*, 2010).

Ubar kampung has been known for generations to the community in Sunda Region. This local medical practice is still widely used among the Sundanese community, especially in rural areas. The knowledge of traditional medicine is generally transferred orally, mainly from the parents to their children. Similarly, several studies reported that the transfer of local knowledge is hierarchically obtained from the family

(Meragiaw *et al*. 2016; Negi *et al*. 2010; Giday *et al*. 2009)

Roosita *et al.* (2008) document that there are about 117 species of plants in West Java which have been used by the villagers in the Sunda Region for the treatment of 96 cases of illness. Leaves are the most common part used for the metabolic disorders remedy in the research area as well as other research settings. Ease of preparation, readily available, and easy harvesting were the main reasons people use leaves (Ssenyange *et al*. 2015; Aadhan & Anand 2017; Chaachouay *et al*. 201), whereas the fruit cannot be taken all the time because the plants do not produce fruit all the time, and not all plants bear fruit. Roots are rarely used, unless for the small plants. The least used of roots is a good indicator because this practice helps to ensure plants continuing growth, reduce the threat of plants extinction/destruction, and sustainable harvesting (Bekalo *et al*. 2009; Ssenyange *et al*. 2015; Chaachouay *et al*. 2019). However, this finding is in contrast with a study conducted in South Africa which report that root is the most frequently used plants part for healing purpose because it is traditionally considered as 'strong medicine' (Mahwasane *et al*., 2013). Furthermore, the study shows that the people of Sundanese use more herbs and rhizomes than trees. The used of herbaceous plants provides more advantage because of easier to cultivate, faster harvesting time, and moreover, there are more herbaceous in nature compare to trees (Bekalo *et al*., 2009).

Most of the medicinal plants reported by key informants and used by the respondents in the research area are already publicly acknowledged for their medicinal properties and also reported in other research settings. Nisyapuri *et al*., 2018 reported that various medicinal plants used among local people in West Java are in accordance with scientific literature. A study in conducted by Kasole *et al*. (2019) report that medicinal plants such moringa seeds and leaves (*Moringa oleifera*), soursop leaves (*Anona muricata*), avocado seeds (*Persea americana*), and lemongrass (*Cymbopogon citratus*) are widely used by diabetes patients and herbalist in Kilimanjaro region. Thus, local knowledge about types and use of medicinal plants can be integrated with scientific study to support the development of disease treatments and improvement of public health in the future.

Conclusion

Ubar kampung has been known for generations to the community in Sunda Region. Sundanese community in the research area rely on traditional medicine or traditional healers for the treatment common illness. The knowledge of traditional medicine is generally transferred orally, mainly from the parents to their children. Majority of respondents hold the much knowledge and belief on *ubar kampung.* Most of the respondents are able to name the component of traditional medicine, which include the name, use of MAC plants and the recipe to make the *ubar kampung*. The majority of the plant species used for the medicinal purposes belong to the family *Asteraceae*, *Lauraceae*, and *Liliaceae*. Inhabitants in the research area sometimes combined several ways in preparing medicinal plants for health treatment. Most of the medicinal plants reported by key informants and used by the respondents in the research area are already publicly acknowledged for their medicinal properties and also reported in other research settings. Thus, this knowledge can be integrated with scientific study to support the development of disease treatments and improvement of public health in the future.

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