

**Writing Task: Scientific Argument Essay**

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We at Curtin College would like to pay our respects to the Aboriginal and Torres Strait Islander members of our community by acknowledging the traditional owners of the land on which the Perth Campus is located, the Wadjuk people of the Nyungar Nation. We recognise their continuing connection to land, sea and community, and pay our respects to Elders, past present and emerging.

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## **The indigenous knowledge in Bangladesh should work with modern science to cure diseases**

Indigenous knowledge is a knowledge that every culture, society, nation has, also which provides structure for farming, cuisine, healthcare, natural surroundings and so on (Heyd, 1995). According to Islam et al. (2020) we can determine that almost every culture and nation has its own age-old knowledge and techniques for making medicine. He also mentioned that, Indigenous medicinal knowledge means the age-old knowledge of making medicine applying convenient native ingredients and their own techniques in order to cure sickness. Natives live close to nature and have a strong connection to the environment; therefore, they are familiar with plants and their benefits including medicinal value (Senthilkumar et al., 2013). Moreover, the usage and popularity of indigenous knowledge of plant-based medicine have been growing rapidly (Tugume et al., 2016). According to the World Health Organization (WHO), more than four-fifths of people worldwide rely on plants for medicinal uses. Like other country, Bangladesh which is not very much develop country has many tribes' community in the northern and south-eastern forest regions of the country and also have its own age-old knowledge and traditional practices on medicinal therapy. From the research, Rahman et al. (2007) it is thought that the local tribe and the Bangladeshi people still practice indigenous knowledge of using medicinal herbs to treat human ailments. Medicinal plants are used as "herbal remedies" in many parts of Bangladesh, especially in rural areas. As stated by Rahmatullah et al. (2010) plants were used not only for curing but also for preventing various illnesses. There are three reasons why should indigenous knowledge in Bangladesh work with modern science in curing diseases. First of all, medicinal plants are easy to get as well as cost-effective, these medicinal herbal plants are significant in terms of religious and cultural heritage, as well as these plants have more traditional healing properties.

It is estimated that, there are about 6500 plants in Bangladesh, among them 500 species have beneficials medicinal properties, where 250 plants are used in the medicinal preparation (Ahmed et al. 2009). Plant-based traditional medicinal knowledge of indigenous people using as medicine since these plants are easy to get as well as cost-effective. According to Hanif et al. (2009) the reason why it is easy to get because the most noticeable preparation method of medicine from plants or plant part are juice (extract or sap of plant or plant parts),curry, decoction ( a process when plant or plants part are boiled in the water ,then the water is being filtered through fabric), mixtures( soaking plants in water),paste(in which crushed plant parts are grounded with or without water), and pills or tables (in which dried plants are powdered and formed into tables or pills comes in a bean seed size). Moreover, all the materials which are transformed in paste, pills or juice are finally mixed with homemade ingredients like oil, honey, milk, various types of spicy and so on (Islam et al., 2020). His statement also indicates that, juice made from leaves and stems of *Achyranthes aspera L.* are massaged on to the area of inflammation. The powdered

made roots, and bark of *Aegle marmelos* (L.) Corr. is taken with water and sugar applied to heart palpitations, fever, clearing of bowels and also as an anti-inflammatory agent (Islam et al., 2020). We can easily made herbal medicine using homemade materials which will be available as our daily kitchen staff, will not cost much, and also saves time. Additionally, herbal plants are also significant in terms of religious and cultural heritage.

The traditional knowledge of practising various types of medicinal herbal plants is significant in terms of religious and cultural heritage. Rahman et al. (2022b) reported there are a few medicinal plants used for healthcare considered by the Hindu Muslim communities of religion as traditional spiritual plants with cultural significance. It also indicates that, *O. sanctum*, *Lawsonia inermis*, *M. indica*, *A. marmelos*, *C. nucifera* is used in when they worship of god, while the leaves of *Z. mauritiana* is used by the Muslim community people in showering before its burial. Besides, traditional the root and leaf of *Mangifera indica* L. is used by the traditional healers for Dental problem, Mouth wash, Skin irritations (Islam et al., 2020). Moreover, Rahman et al. (2022b) represented the believes that, bad spirits hide in the tree leaves, so *A. marmelos*, *Bambusa spp.*, *C. nucifera*, *Ricinus communis*, *Streblus asper* are planted on the homestead forest. , species like *Cobiaeum variegatum*, *H. rosa-chinenesis* are grown and cultivate for therapeutic purposes and enhancing beauty . This is how not only traditional cultural practices are being preserved, but also traditional healing plant based are also being protected (Rahman et al., 2022b). To further discuss, the benefits of using traditional knowledge of medicinal herbs in modern medicine as it has many traditional healing properties.

Indigenous herbal plants have more healing properties for healing different types of ailments. Hanif et al., (2009) indicates that around more than 16 plants are used for curing the gastrointestinal problems such as diarrhea, dysentery, inditation, constipation, helminthiasis, piles where 11 plants used for curing respiratory problem and skin problem respectively. Bark, leaves, flowers, fruit, whole plant, seed, stem, latex are the most used part of a plant in order to prepare herbal medicine (Alam et al., 2022). Leaves is the mostly used part of a plant because of its activeness and availability (Rahmatullah et al., 2009). He also demonstrates that, there are 2 methods of using herbal medicine either oral or surface application. According to the Sumbul et al. (2011) *Myrtus communis* was used for gastric problem, diarrhea, vomiting, dysentery, rheumatism, haemorrhages. Hanif et al., (2009) also mentioned that single plants is used to treat various illness, for example *Terminalia arjuna* Bedd. is used to curing heart disorders, hepatic disorders, jaundice and many more. In order to treat various illness different plant part of the same plants are used (Rahman et al., 2022b). He also mentioned that, the mixture of same or different parts of more than one plant is used to make the medicine of curing single sickness. Deng et al. ( 2020 ) states that *A. sativum* , *A. cepa* , *Cliteria ternatia* , *Morus alba* , *Solanum melongena* and *Z.*

*officinale* are kitchen cheap indigents which helped us to fight against COVID-1. Like this, herbal plants are using as medicine in order to treat different diseases by the native people, without having harmful effect like drugstore products. Though it's true, it takes time to get the best result or to getting properly recure from the diseases, as there are no chemical materials. However, there is a saying that, "every action has its reaction".

Some studies indicate that Bangladeshi Indigenous knowledge practices are highly threatened by forest loss, urbanization, inappropriate harvesting methods, and changing utilization of land (Motaleb & Khan, 2012). Moreover, Other studies (Khan et al. 2011; Rahman et al. 2011a; Rahman 2013) mentioned that the local knowledge of medicinal plants will be no longer available as it is handed down from generation to generation by oral tradition, having no documentation of this valuable traditional knowledge on herbal treatment. Furthermore, according to the research (Alam et al., 2022) knowledge of traditional medical is rapidly vanishing as the native healers are gradually shifting to other profession in order to get a better lifestyle.

Admittedly this may be a problem, but most people also believe that besides having dissimilarity, plants are being used for both preventing multiple ailments and healing various diseases (Rahmatullah et al., 2010). Also, majority people agreed that, multiple diseases are curable by using traditional remedy, as well as treatment is beneficial (Islam et al., 2020).

In conclusion, we need to take care, respect the traditional wisdom of native communities and preserve their traditional knowledge of herbal remedy (Islam et al., 2020). Indigenous knowledge in Bangladesh should be incorporated with modern science in order to cure diseases based on three reasons. First of all, Bangladesh is full of natural resources of medicinal plants which can be used in alternative methods of healthcare practices by providing a cost effective and accessible treatment options as these medicinal plants are available in locally. Secondly, the rural people of Bangladesh have traditional knowledge of practising various types of medicinal herbal plants which is significant in terms of religious and cultural heritage. These natural plants help to preserve its cultural and religious tradition by the native healers. Lastly, rural people as well as urban people rely number of medicinal plants, and herbs as these herbal plants are rich in many useful qualities or have more healing properties for not only healing different types of ailments but also preventing diseases. Though it will take time for recovery as it is completely herbal remedies, there is no use of harmful chemical drugstore elements. It's time to take initiative steps in order to preserve the indigenous knowledge of using herbal medicine in all areas of the country.

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