

HEALTH BENEFITS OF SELECTED LOCAL SPICES AND CONDIMENTS:A LITERATURE REVIEW

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Abstract

This paper looked at the health benefits of selected local spices and discussed the significant role and how the nutritive value of food could play a role in maintenance of good health and sustenance of life. Every edible food plants has their own major nutrients. Spices are edible plant which could be used raw in food preparation or dried and ground into powdered form. The spices reviewed in this paper include Aiden, Negro pepper, Nutmeg, African locust bean, West African pepper and Turmeric. The nutritive value of the spices and their chemical contents were proven to function like drugs to prevent and manage diseases, if included in diet daily to help live healthy as one aged gracefully. It is therefore recommended that serious attention should be given to local spices by using it in preparing food.

Keywords: local spices, condiments, health benefits

Introduction

Food plays a major role in the human body and it's nutritive value, include such basic nutrients as proteins, carbohydrates, fats and oil, vitamins mineral and water. These nutrients are very essential for sustenance of life in daily living. Nutrition researchers have reported that each of the nutrients or group of the nutrients have specific function in the body and that appropriate consumption of adequate quantity of each nutrient will help to maintain good health status. Clark (2013) grouped the basic nutrients and function in the body to include body warmer and energizer such as carbohydrates, fats and oil, body builders include protein, body protectors: vitamins and minerals and essential nutrients - water

Vitamins and minerals are essential nutrients required in a little quantities for biochemical functioning of organs and systems of the body. Gerber (2016) opined that vitamins and minerals are functional nutrients that works somewhat like drugs that can be used to prevent and manage ill-health challenges manage whereit has occurred, and their major sources are herbs and spices from the plant family. Every edible plant has its major nutrients value along side with other trace elements, but some have vitamins and minerals in large quantities, which made Nutritionists to refer to them as functional foods, because they can be used as drugs for prevention and management of ill-health condition. Herbs are obtained from the leafy parts of plants, while spices are obtain from the seeds roots and bark. They could be used raw in food preparation or dried and grounded into powdered form for use. The nutritive values of herbs and spices and their chemical contents have been proven to function like drugs that could be employed to maintain good health and sustain life. (Okafor & Uko-Aviomoh, 2019). This paper therefore, addressed selected local herbs and spices, their nutrient contents (chemical values) and health benefits in the prevention and management of ill-health challenges when it occurs. The main focus of this study is to review specific local spices, their nutritional components and functional properties to prevent and manage disease conditions.

Meaning of Spices:

According to John (2016), spices are aromatic or pungent vegetable substances used to add flavour to foods and also contain vital chemical compound that function like drugs. Duke (2017) also opined that spices could

be any dried part of a plant other than the leaves used for seasoning and flavouring a recipe but not used as the main ingredient. National Research Council (2016) defined Spices as any aromatic vegetable substance in the whole, broken, or grounded form. Therefore there are numerous local spices used in cooking foods in the society examples are as follows: Aiden, Negro pepper, Nutmeg, African locust bean, West African pepper and Turmeric.

AIDEN : (English Name), *tetrapleura tetraptera* (Botanical Name) and Local Name (Uyayak) Ibibio, (prekese) Ghana (Osakrisa; /oshosho) Ibo, (Aridan) Yoruba. Aiden is a spice of plant in the pea family in Western Africa. The tree has many uses. Its sweet fragrance is valued, its fruit is used to spice dishes, such as Banga soup, pepper soup, porridges, jollof rice and its bark is used for medicinal purposes. The major constituents are tannins, flavonoids alkaloids, steroids, phenol and starch

Aiden has many health benefits among which are:

Supports the Immune System: Aiden is an excellent source of key minerals such as potassium, iron, calcium, magnesium and zinc. Aiden helps to strengthen the immune system. Iron helps to regenerate lost blood, zinc offers protection against viruses especially those that can cause respiratory tract infections, while calcium and potassium help to manage, prevent and control bones and muscles disorders. (Ekwenye & Okorie, 2010)

Anti-Aging Properties: Aiden pod contains anti-aging properties such as polyphenols, flavonoids, tannins and alkaloids which are antioxidants that protect the body from free radicals and oxidative damages responsible for aging. Those who wish to continue to look young, especially women, must make Aiden fruits their friend, and use it to spice up their foods each time they are cooking. (Maillard, Adewumi & Hostettman, 2012).

Disease management and treatment: In folk medicine, both the stem, leaves and fruit of Aiden are used for producing herbal concoction for managing convulsion. Aderibegbe, Iwalewa, Adesina & Agboola (2010) revealed that the aqueous extract from the fruit exhibits anti-convulsant properties which confirms its inhibitory effects on the central nervous system. Ekwenye & okorie (2010) opined that Aiden can be used for treating leprosy, which is an infectious disease that affects mainly the skin, nerves and the mucous membranes thereby causing blemishes and lumps on the skin. Severe cases of leprosy can lead to deformities and mutilation (Abii & Amarachi, 2017). The extract of this plant is known for its anti-inflammatory properties and this suggests its inhibitory impacts against certain human pathogens. Aiden can be used for reducing inflammation of the body, arthritic pains and rheumatoid pains. Aiden supports the cardiovascular system due to its constituents of essential phytochemical and as such can be used for preventing and treating heart diseases and jaundice (Atawodi, Ene-Ojo & Yakubu, 2014). The stem and bark extracts of Aiden (*Tetrapleura tetraptera*) can be used for preventing and treating hypertension. Researchers agree that *Tetrapleura tetraptera* is effective for preventing high blood pressure and for improving the oxidative position in salt model of hypertension patients. The stem and bark extracts of *Tetrapleura tetraptera* can be used for preparing herbal medicines for treating diabetes and its complications such as Oxidative Stress and Hyperlipidemia. The leaves, roots, and bark can also be added for optimal performance. Aiden pods contain essential chemical compounds such as flavonoids, triterpenoid glycoside (aridan) and phenols, which have been reported to be effective for healing wounds (Uchechi & Chigozie, 2010).

Aiden fruits are highly effective in the prevention, shrinking and total treatment of fibroids in women. Women who use Aiden fruits to spice up their foods rarely develop fibroids. Those who already have fibroids can use *Tetrapleura tetraptera* to shrink it. Boil Aiden fruit for about 30 minutes and take one cup twice daily for two weeks (Mehmet, Riwan & Ahmet, 2016). Aiden pod is traditionally used for preparing special soups for postpartum mothers immediately they put to bed in order to avoid post-partum contraction. Although Aiden can be used alone for this sort of postnatal soup preparation. However, it can be used together with *piper guineense* (uziza), *gongronema Latifolium* (utazi) and *scotch bonnet* (fresh pepper) for supper action. Using this spice for post-partum care is attributed to its high constituents of calcium, iron and potassium, which are very important for new mothers. Furthermore, it helps to restore and replenish lost

blood for new mothers and promotes lactation, it also serves as contraceptives. (Nwanu & Allah, 2016). The Saponin and ethanol extract from the stem and bark of this plant has an inhibitory effect on luteinizing hormone released by the pituitary gland. This suggests why this plant equally serves as a contraceptive, (Akin-Idowu, Ibitoye, Ademogegun & Adenyi, 2011).

Preparation of Aiden for medications

To prepare the fruits for medication purposes, cut few pods into pieces and boil in water for about 40 minutes. Drink half cup morning and evening for a month. In serious cases, the pods are grinded and mixed with honey or palm kernel oil. Leaves, roots and bark are also cooked like the fruits and taken twice daily. (Mehmet et al 2016).

NEGRO PEPPER: (English name), *xylopia aethiopica* (Botanical Name)

Local Name: (Uda) Ibo, (unien) Benin. Negro pepper, is from the Annonaceae family. The high demand for the Negro pepper as a spice is due to its high constituents of essential phytochemical compounds, nutritional values and its contraceptive benefits for women since there are no side effects using Negro pepper water to prevent pregnancies on like the modern methods which have side effects such as cancer, depression, heart attack or stroke and obesity. It is also safe for women who are breastfeeding infants. Negro pepper water contains vitamins A, B1, B2, C, E and folic acid.”(Abd-Algader, El-kamali, Ramadan & Ghanem 2013). Negro peppers can be added whole or crushed before using to prepare assorted food dishes such as soups, yam porridge, pepper soup, stews, sauce, meat and fish among others. It can be used alone or mixed with garlic or ginger for making herbal tea. Negro pepper can also be used as a preservative. Every part of the Negro pepper plant such as the bark, seeds, stem, fruit, leaves are of great importance in folk medicine for therapeutic purposes. Furthermore, some parts of negro pepper can be combined with other plant parts for tackling many ailments and diseases. Researchers revealed that the Negro pepper contains anti-oxidizing, calmative, laxative and antimicrobial properties. (Okigbo, Mbajiuka & Njoku, 2015). Negro pepper can be used as a herbal stimulant for treating gastrointestinal problems such as stomachache, dysentery and gastric ulcers.

The bark of the Negro pepper is soaked in palm wine and used for treating respiratory system diseases such as bacterial pneumonia, asthma and bronchitis, and also rheumatism, arthritis and other inflammatory health conditions. (Puvanendran, Wickramasinghe & Karunaratne, 2018) Negro pepper seeds are crushed and applied topically on the skin for treating boils, itches and skin eruptions. It is also used to treat various premenstrual syndrome including any stomach ache, headache and even any unwell feeling. Therefore, it is good to consume negro pepper before menstruation period and also helps to regulate a better period too. Since Negro pepper is a good way to avoid inflammation and infection, it will lead to a better body immune system. Therefore, it is the best way to keep the body wellness and avoid any further effects of diseases. (Ezekwesili, Nwodo, Eneh & Ogbunugafor, 2010).

Negro Pepper contains the following compounds; phytosterols, tannin, glycosides flavonoid, alkaloids, cineol, beta-pinene, paradol and alpha-terpineol, (Kolawole & Omafuvbe, 2013).

Negro pepper has the following health benefits:

Hormonal Regulations: The seeds of negro pepper helps to improve the hormonal system of the body and help to regulate the hormone secretion and lead to a better body system and also improve the metabolic and digestive system too. (Tarun, Hoffman & Schieberle, 2019).

Postpartum Herbal Tonic: Negro pepper is used together with Uziza, utazi leaves and pepper for preparing local soup such as nsala soup served for post natal mothers immediately after childbirth. These spices help to boost the healing and recovery process of wounds after delivery. It also helps to stimulate appetite, reduces pain and helps the breast milk to flow. Some studies revealed that the negro pepper can also be used for inducing labour. Administering negro pepper to newborn mothers helps to clear blood clots in the womb after child delivery, this is done by boiling few seeds like seven in the water and drinking it when hot.

(Abolaji, Adebayo & Odesanmi, 2017). It is also use as contraceptives, some women prepare a herbal concoction with negro pepper seeds, which they take immediately after sexual activities or before sexual activities to reduce the chances of becoming pregnant.

Negro pepper contains anti-spirochete properties therefore can potentially destroy pathogens that are capable of causing syphilis, relapsing fever, yaws, and other related diseases. (Ijeh, Omodamiro & Nanna, 2015).

Negro pepper is an excellent source of antioxidants, which are substances capable of removing free radicals and oxidizing agents in a living being. Due to the anti-oxidizing properties of negro pepper, it can be used for preventing and destroying cancerous tumors. (Abolaji, Adegboye & Odesanmi 2017) The anti-oxidizing abilities of negro pepper is due to its constituent of flavonoids, phenolics, limonoids and polysaccharides. It is important to note that phenolic extracts have free radical scavenging activity and interestingly, the water extract of *Xylopiya aethiopica* fruit contains high amount of phenolic compounds. (Puvanendran, Wickramasinghe, Karunaratne & Carr, 2018).

Contraceptive: Take a glass of negro pepper solution immediately after sexual activities and some women also prefer to take this before sex (this is because some spermatozoa are stubborn). Madame (2013) explained that the presence of ethanol in negro pepper plant makes it to reduce the potency of spermatozoa which makes it possible to obstruct pregnancy.

Preparation of negro pepper Water

Negro pepper water can be prepared by purchasing a large quantity of negro pepper and putting in a pot e.g. 250 grams, Add about 60cl of clean water boil the negro pepper for 5 minutes, put down and allow to cool. Once the boiled negro pepper water has cooled, pour in a container and store in the chill room compartment of the refrigerator. Do not store in the freezer so that the active ingredient will be stable although it is more active when it is not stored for too long (Madame, 2013).

Side Effects of the Negro Pepper

When negro pepper is taken in excess the aqueous extract of the negro pepper can reduce the haemoglobin concentration. Moreover, it also increases the bleeding and clotting time and as well as reducing the white blood cell count. As a result of these side effects of the negro pepper seeds, people should be careful when using this spice to prevent any anomalous effects on the blood system. (Obembe, Ofutet & Okpo-ene, 2015)

NUTMEG (English Name) Botanical Name: (*Myristica fragrans*) Local Name: ("Umilo") itshekiri) ehreoyibo (urhobo)

Nutmeg is a seed of a tree particularly known for its numerous health advantages. According to the Gas chromatography (2019), Nutmeg oil constitutes 25 chemical components that contributes to its fragrance, therapeutic attributes, consistency and quality of its oil. of which some of the chemical components include sabinene, alpha.-Pine, .beta.-Pine, Terpinen-4-ol, Limonene, .gamma.-Terpinen, Elemicin, .alpha.-Terpinen, Myristicin, .beta.-Phellandrene, Terpinolene, and alpha.-Thune. (Latha, Sindhu & Suja, 2019).

Nutmeg is additionally an effective tranquilizer. Nutmeg is really staple in ancient Chinese medicine. The Chinese utilize the spice to deal with inflammation as well as abdominal pain. It is also helpful to those suffering from painful joints, muscle pain, arthritis, sores and other ailments. (Food and Agriculture Organization, 2018). To ease the pain, nutmeg oil is applied on the affected areas. Nutmeg can successfully provide relief from digestion related difficulties such as bowel problem bloating flatulence among others. Nutmeg oil reduces stomach aches by eliminating the excess gas through the intestines. Nutmeg also enhances appetite. Due to its anti-bacterial qualities, nutmeg is used successfully to treat halitosis (Kaefer & Milner, 2018). Bad breath is generally the result of a build-up of bacteria within the mouth. Nutmeg is a common ingredient in lots of brands of toothpastes and may also be.

Blood Pressure and Circulation: The mineral content of nutmeg is used for maintaining organ function. Potassium is really a vasodilator that relaxes blood vessels, therefore decreasing blood pressure as well as decreasing the strain on the cardiovascular system. In addition, nutmeg facilitates the uptake of nutrients from food making digestion effective as well as efficient and fast process. The calcium present in nutmeg can enhance the health of the bones by contributing to growth and repair, while relieving the signs of osteoporosis. Ultimately, the iron content can improve red blood cell count and lower the chances of developing symptoms of iron deficiency, also referred to as anemia. Nutmeg oil is believed to relieve cough and cold apart from the treating the respiratory disorder and asthma. (Patil, 2017). Nutmeg oil is highly beneficial for relieving menstrual cramps and treating menstrual irregularities and also boosts sexual activity, both libido and potency or sexual energy. Nutmeg extract is utilized just as one ingredient in lots of sex tonics intended for dealing with debility, impotency and spermatorrhoea, with great aphrodisiac properties, nutmeg is highly beneficial for curing impotence, premature ejaculation and low libido. (Marcene, 2018).

Brain Tonic: In the ancient times, Roman and Greek civilizations utilized nutmeg as a kind of brain tonic. It is because nutmeg can effectively excite the brain. For this reason, nutmeg gets rid of exhaustion as well as stress. If anyone suffers from anxiety or depression, nutmeg can also be a great treatment. Adding a dash of nutmeg in the diet, works as an antidepressant and releases stress by calming the nerves. It works as an adaptogen, which has sedative effects and also relieves stress and anxiety. Nutmeg usually increase concentration so that the individual can become more active as well at work. (Sangalli & Chiang, 2019).

Liver and Kidney Detox: Detoxification is a crucial factor in good health. The liver and kidney are two organs where toxin build-up generally. Nutmeg helps clean up the liver and kidney and take away these toxins. Nutmeg is good at stopping as well as dissolving kidney stones. Whenever the liver and kidney are effectively detoxified, then they will be able to execute their functions properly, therefore little nutmeg should be added to the diet. (Agbogidi & Azagbaekwe, 2013).

Skin Care: Nutmeg can be incorporated into regimen and assist to accomplish smoother as well as healthier skin and prevent a number of skin problems such as eczema, acne, scars and blackheads. A scrub produced from nutmeg powder and orange lentil powder will help eliminate blackheads, a kind of acne pores clogged with excess oil and dead skin cells. Nutmeg could also help make scars less noticeable. Mix some nutmeg powder with honey to make a paste and apply on acne mark to completely erase them. (Gupta, Bansal, Babu & Maithil, 2013).

Insomnia - Nutmeg has a high content of magnesium, an essential mineral in the body that reduces nerve tension, and even stimulates the release of serotonin which is a hormone that creates the feelings of relaxation or sedation. This is why it is commonly used to treat sleeplessness and insomnia. Serotonin is changed to melatonin in the brain, which is a sleep inducer. A pinch of nutmeg in a glass of warm milk to rectify insomnia. (Kim, Chen, Wang & McGregor, 2010).

Side-Effects of Nutmeg

Long-term use of nutmeg in doses of 120 mg or more daily has been linked to hallucinations, nausea, dry mouth, dizziness, irregular heartbeat, agitation, vomiting, diarrhea and other mental side effects (Joseph, 2019).

AFRICAN LOCUST BEAN (English Name) Botanical Name: *Parkia biglobosa*, Local Name: Ogiri (Ibo) iru (Yoruba) dawadawa (Hausa). Locust Bean belongs to the family of Mimosaceae plants. In West Africa the bark, roots, leaves, flowers, fruits and seeds are commonly used in traditional medicine to treat a wide diversity of complaints, both internally and externally, sometimes in combination with other medicinal plants. The bark is most important for medicinal uses, followed by the leaves. (Abioye, Akinpelu & Aiyegoro, 2013) Medicinal applications include the treatment of parasitic infections, circulatory system

disorders, such as arterial hypertension, and disorders of the respiratory system, digestive system and skin. In veterinary medicine, a root decoction is used to treat coccidiosis in poultry. Green pods are crushed and added to rivers to kill fish. (Abioye, et al 2013).

Locust bean has the following components: carotenoid, saponins, tannins and hydrocyanic acid. Ntui, Uyoh, Urua & Ogbu (2012) reported that the health benefits of locust beans include: good eyesight; helps people with eye problem such as cataract, myopia, glaucoma and others because it also contains natural nutrients that can maintain eye health; helps in the treatment of stroke by consuming it regularly. (Aremu, 2019). Locust bean is also used to treat blockage of blood vessels caused by cholesterol a precursor of heart related diseases. Locust bean has been used in the healing of diarrhea and other gastrointestinal disorder as a result of the presence of tannin. (Heuzé, Thiollet, Tran & Edouard, 2018). Eating a good amount of locust beans improves digestion. Proper digestion will promote a healthy body as the excretion process will be facilitated and prevent constipation. Locust bean is used to treat ulcer wounds internally by eating regularly as well as external wounds. The leaves when pounded and applied on wounds is capable of healing wounds. Consuming a good amount of locust bean reduce fever. It was traditionally used to reduce high fever and is still practiced in some rural African communities. Therefore, consuming healthy locust beans gives good health. (Gernah, Inyang & Ezeora, 2017).

Side-Effects of locust Bean: Some people are allergic to locust bean. This allergy takes the form of asthma and breathing issues, and can be serious and some premature infants have bad reactions to formula that contains locust bean gum if it has been mixed incorrectly. (Adewumi, 2017).

WEST AFRICAN BLACK PEPPER (English Name) Botanical Name: *Piper guineense*, Local Names: (uziza) Igbo, (Ehien) Benin and (Ashanti pepper) Ghana. The plant that provide West African black pepper is a vine that can grow up to 20 m in length, climbing whole of tree by means of adventitious roots. West African black pepper is semi-cultivated in countries such as Nigeria where the leaves, is used as a flavouring for stews. Like other members of the pepper family, West African black pepper contains 5–8% of the chemical piperine which gives them their piquant taste. By its nature; it is spicy, aromatic and carminative (Youngs & Mohamed 2019). West African black pepper has the following components such as alkaloids, steroids, glycosides and flavonoids.

Health benefits of West African black pepper

Immune enhancer: West African black pepper exhibits immunomodulatory effect on human body. It is able to boost and supports the number and the efficiency of white blood cells and assists the body to raise a powerful defense against invading microbes and cancer cells. The other health benefits of West African pepper leaves are: Treatment of rheumatism, lowers cholesterol, prevents diabetes, prevents hypertension, aids postpartum recovery, improves appetite, treats dysentery, eases indigestion. (Kiin-Kabari, Barimalaa, Achinewhu & Adeniji, 2011).

Management, prevention and treatment of diseases

Abila, Richens & Davies, (2010), recorded the following health benefits of West African black pepper. The spice generally clears the throat and causes a runny nose to cease. This ability is common to every spice. When one has a cough or finding it difficult to breathe due to influenza flu, chewing West African black pepper can quickly clear the mucus out of the way. To do this, one needs to get some West African black pepper leaves, whether fresh or dried, grind and put them in a clean bowl. Add some clean boiled water and allow to stand for at least ten minutes. Sieve the mixture and drink the filtrate. The spicy quality, coupled with the warm water, will help clear the cough as well as lubricate the throat for easy breathing. It prevents constipation when a person finds it difficult to have bowel movements for a few days, the problem is called constipation. Constipation is caused by the absence of roughages in our food. Roughages are dietary fiber. Interestingly, West African pepper is quite rich in dietary fiber. By adding West African pepper to meal always will help keep constipation out of one's health status. However, West African pepper cannot be used to treat constipation; it can only be used to prevent it from ever occurring. It also prevents cancer, by

consuming anti-inflammatory and anti-oxidants regularly, the free radicals will be neutralized, and the chances of the body developing cancerous cells will be significantly reduced. West African black pepper contains a substance called flavonoid; a powerful anti-oxidant that helps neutralize free radicals in the body. (Okoye & Ebeledike, 2013).

Improves fertility: West African pepper is used in many local herbal medicines to treat infertility. It is taken in combination with honey to address the problem of infertility in women and in men to improve low sperm counts. Thus, just like one of the health benefits of black pepper, West African black pepper boosts or improves fertility in men. It plays an important role in improving male fertility. It is known to increase testosterone levels as it is rich in zinc and magnesium, two minerals critical for male sex hormones. It also increases sperm count and its concentration. The zinc element also helps in the development and movement of sperm. In the eastern part of Nigeria, the leaves are used by local midwives to increase contraction rate of the uterine walls during childbirth. (Ashoke & Upadhyaya, 2012).

It keeps away mosquitoes: West African pepper leaves can also be used to keep mosquitos away from home. In some local areas, people sleep with West African pepper leafs close to their bed. This is because the leafs produce a scent that keeps mosquitos away. Many insecticides are also based on compounds extracted from the leaves. (Juliani, Koroch & Giordano, 2013).

Relieve pain: West African pepper leaves contains alkaloids. Alkaloids are known to have therapeutically efficient effect to perform as pain killer. Therefore, taking West African pepper leaves to relieve pain such as headache, toothache, and painful joints will be a perfect solution. It is also effective in treating menstrual pain. The leaves show the effective result in relieving pain. It can be used to relieve pain by chewing or pounding either the seeds or leaves and rubbing it on the joint or if it is headache rub it on the forehead and by adding it to food (Srinivasan, 2019).

Lose weight: The dietary fiber in West African pepper leaves is effective in losing weight. Just like the health benefits of drinking green tea on empty stomach for weight loss, West African pepper leaves can also perform the same function either boiled fresh or drink the tea of dried West African pepper leaves. (Echo, Osuagwu & Agbor, 2013).

TURMERIC (English Name) Botanical Name: *Curcuma Longa*, Local Name : (Atale pupa) Yoruba, (Ganga Maui) Hausa, (Ohu Boboch nwadum) Igbo, (Agi) Benin. Throughout history, our ancestors have relied on numerous herbs and spices, not only for cooking but for their healing properties. Few have survived the test of time like turmeric, arguably the most well-studied dietary supplement in modern natural medicine. Turmeric root powder originates from the *Curcuma longa* plant. The *curcumin* oils within it have potent anti-inflammatory and antioxidant activity with a wide variety of uses and benefits and very few side effects. (Kuo, Huang & Lin 2016). Turmeric has the following components alkaloids, flavonoids saponin and tannin.

Management and prevention of diseases: Numerous trials on turmeric's potential to serve as a complementary treatment in cancer patients. Curcumin can selectively target cancer cells and inhibit tumor initiation and growth. Turmeric also helps reduce inflammation and pain from chemotherapy. Turmeric helps to prevent diabetes. Curcumin appears to have both an insulin-sensitizing and glucose-lowering effect while improving glycemic regulation.

Turmeric reduces candida overgrowth and target fungal infections, Parkinson's disease, is a neurodegenerative condition in elderly populations characterized by motor symptoms, including tremors, muscle rigidity, and postural instability. Curcumin shows significant neuroprotective benefits, helping reduce neurotoxicity and oxidative stress linked to disease progression (Rodrigo, Miranda & Vergara, 2011). It also improves Allergies and Asthma, an allergy transpires when the immune system mistakenly identifies a foreign substance as harmful to the body and over reacts to it. During an allergic reaction, we produce

antibodies that respond to these allergens, ultimately leading to an unwanted collection of symptoms (coughing, sneezing and itching, among others.).

The anti-inflammatory activity of turmeric powder helps to fight off many allergy-related symptoms and decrease the likelihood of asthma attacks, curcumin supplement reduces signs of sneezing, nasal congestion, and runny nose linked to restricted nasal airflow and hay fever. Turmeric stimulates bile production and release from the gallbladder, helping to eliminate unwanted waste from the body. (Aggarwal & Sung, 2019).

Enhances Brain Function: Turmeric improves overall mental health and cognitive function. Research shows curcumin enhances Docosahexaenoic acid (DHA) synthesis that is crucial for brain. Antioxidants improve cognition and increase neuroplasticity, the brain's capacity to create new synaptic connections, it also reduces anxiety and depression, turmeric extract influences neurotransmitter balance in the brain. Curcumin appears to have an antidepressant and anxiolytic effect through its ability to modulate levels of serotonin and dopamine. Therefore, it is a good complementary treatment for depression. (Iniaghe, Malomo & Adebayo, 2019)

Side-Effects of turmeric: Side-effects are rare, but when taken in large amounts can include: upset stomach, including diarrhea yellow stools headache rash (Heger, 2017).

Conclusion

Health benefits of selected local spices and condiment shown that spices obtained from plant origin has nutritive values that work like drugs and can be used to prevent and manage ill-health challenges if included in daily meals. The health benefits of spice is widely known locally and internationally.

Recommendations

Based on the reviewed literature it was recommended that:

1. Spices should be used more in meal preparation to keep individual consumer maintain good health status.
2. Individuals should make conscious effort to find out the nutritive values of local spices around and take advantage of the useful constituents to enhance quality of life.
3. People who have ill-health challenges or the other, should seek out spices that have nutritive values that can help solve the problem instead of depending on drugs alone.
4. One should make conscious efforts to ensure that meal consumed from time to time contain spices that will help live healthy as one aged gracefully.

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