DAABS2,SABFAT5,SABFAT6 and SAAAB (African Polyherbal remedies) used in the Treatment of Parkinson Disease in Nigeria.

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I. Background of the Study

Applied approach is one of the important approach in medical anthropology,the medical industry use the information that medical Anthropologist gather to make decision regarding to the a diseases or health outcomes. Medical anthropologist research global health problem and find common ground between culture and politics. Parkinson can be found as global health and should get analyze to find a cure or comfortable suffering and common ground between culture and politics

Parkinson's disease (**PD**) is a long-term neuro-degenerative disorder of the Central Nervous System which affects the motor system mainly. The symptoms usually emerge slowly and, as the disease worsens, non-motor symptoms become more common. The most obvious early symptoms are tremor, rigidity, slowness of movement, and difficulty with walking, but cognitiveand behavioral problems may also occur.

Parkinson's disease Dementia becomes common in the advanced stages of the disease. Depression and anxiety are also common, occurring in more than a third of people with PD. Other symptoms include sensory, sleep, and emotional problems.The main motor symptoms are collectively called "Parkinsonism", or a "parkinsonian syndrome".

The aetiology of this disease is unknown ,but it is believed a combination of genetic and environmental factors a major role. Those with a family member affected are more likely to get the disease themselves. There is also an increased risk in people exposed to certain pesticides and among those who have had prior head Injuries while there is a reduced risk in tobacco smokers and coffee or tea drinkers. The motor symptoms of the disease result from the death of cells in the substantianigra, a region of the midbrain, leading to a dopamine deficit. The cause of this cell death is poorly understood, but involves the build-up of proteins into Lewy bodies in the neurons.

Parkinson's disease typically occurs in people over the age of 60, of whom about one percent are affected. Males are more often affected than females at a ratio of around 3:2.When it is seen in people before the age of 50, it is called early-onset PD.In 2015, PD affected 6.2 million people and resulted in about 117,400 deaths globally. The average life expectancy following diagnosis is between 7 and 15 years.

There is no cure for PD; treatment aims to improve the symptoms. Initial treatment is typically with the medication levodopa (L-DOPA), followed by Dopamine agonist when levodopa becomes less effective. As the disease progresses, these medications become less effective, while at the same time producing a side effect marked by involuntary muscle movement.Diet and some forms of rehabilitation have shown some effectiveness at improving symptoms. Surgery to place microelctrodes for deep brain stimulation has been used to reduce motor symptoms in severe cases where drugs are ineffective. Evidence for treatments for the non-movement-related symptoms of PD, such as sleep disturbances and emotional problems, is less strong.

The disease is named after the English doctor James Parkinson, who published the first detailed description in *An Essay on the Shaking Palsy*, in 1817. Public awareness campaigns include World Parkinson's Day (on the birthday of James Parkinson, 11 April) and the use of a red tulip as the symbol of the disease. People with Parkinson's who have increased the public's awareness of the condition include the boxer Muhammad Alli, actor Michael J. Fox, Olympic cyclist Davis Phinne

DAABS-2,SAAAB,SABFAT5,andSABFAT6 are African polyherbal remedies that had been used and still in use for the treatment of Parkinson Disease here in Nigeria with dramatic disappearance of the clinical feautures for parkinsonism in Five (5)patients diagnosed of Parkinson Disease.

Nigeria is a West Africa Country with the largest concentration of Black/Dark skin people in the world with over 206 Million people..

JUSTIFICATION FOR THE RESEARCH

The justification for this research is to create awareness on the prevalence,incidence, aetiology ,and treatment of Parkinson Disease with the application of Medical Anthropology.

Aim and Specific Objective of the Research
The aim of the research is to promote the use of DAABS-2,SAAAB,SABFAT5,SABFAT6 which are African polyherbal Formulation in the treatment of Parkinson Disease
OBJECTIVE OF THE RESEARCH
1.To recommend the use of DAABs-2, SAAAB ,SABFAT5 and SABFAT6 in the treatment of Parkinson Disease
2.To determine the use of DAABs-2 in the treatment of Parkinson Disease
3.To determine the use of SAAAB in the treatment of Parkinson Disease
4.To determine the use of SAABFAT5 in the treatment of Parkinson Disease
5. To determine the use of SAABFAT6 in the treatment of Parkinson Disease

Statement of the Problem
As it had been observed in previous studies ,pesticide is one of the environmental causes of this disease,Nigerians are mostly farmers, they use pesticides always without thinking of the long term health hazards like Parkinson Disease.This disease affects the emotional and Psychological state of a family.The income of the family is affected because of the high cost of the orthodox drug as well as the attention the care requires.
This research aims at using AfricanPolyherbal formulation to treat Parkinson Disease via answering the question below;
1.How does the use of DAABs-2,SAAAB , SABFAT5 & SABFAT6polyherbal formulation influence the outcome of the treatment of Parkinson Disease?

THE ANTHROPOLOGY OF THIS RESEARCH
Most Nigerians have taken into farming as a career and make use of a lot of pesticides on their crops to have a high yield in production,many of them do not know the impact of this on their health with regards to Parkinson Disease.Nigeria case and that of other tropical Africa Countries may not only be due to farming career but also due to the use of pesticides at home against Mosquitoes. Parkinson's disease typically occurs in people over the age of 60, of whom about one percent are affected. Males are more often affected than females at a ratio of around 3:2. When it is seen in people before the age of 50, it is called early-onset PD.[1]In 2015, PD affected 6.2 million people and resulted in about 117,400 deaths globally. The average life expectancy following diagnosis is between 7 and 15 years.
Experimental Approach is where we follow patients experience through the illness and use illness narrative to describe the illness. Illness narrative like chaos, restitution and quest (Illness narrative) can differentiate the illness in various category to find treatments and healing system that can be beneficial to culture, society and politics. Parkinson is categories chaos because it is chronic and there is lot of social suffering. Parkinson can have the patient's family in social isolation. Experimental Approach will help determine how the patient, family of the patient and society can affect the suffering of the patient.
Critical Approach looks at Biomedicine as an institution (cultural of Biomedicine) and establish the dichotomies within the realm of medicine (trends of biomedicine). Biomedicine looks at it as a mental illness which can out these diseases in stigma that might let to negative reaction from the society that can worsen patients suffering. Life/ Death, Male/ Female and Sick/ Health are all used in these illness because there is big range of ages where patients can have different social status, health status and financial status which can categories in specific dichotomies.

ANATOMY OF THE BASAL GANGLIA
The **basal ganglia** (or **basal nuclei**) are a group of subcortical nuclei, of varied origin, in the brains of vertebrates. In humans, and some primates, there are some differences, mainly in the division of the globuspallidus into an external and internal region, and in the division of the striatum. The basal ganglia are situated at the base of the forebrain and top of the midbrain. Basal ganglia are strongly interconnected with the cerebral cortex, thalamus, and brainstem, as well as several other brain areas. The basal ganglia are associated with a variety of functions, including control of voluntary motor movements, procedural learning, habit learning, eye movements, cognition and emotion
The main components of the basal ganglia – as defined functionally – are the striatum, consisting of both the dorsal striatum (caudate nucleus and putamen) and the ventral striatum (nucleus accumens and olfactory tubercle), the globuspallidus, the ventral pallidum, the substantianigra, and the subthalamic nucleus. Each of these components has a complex internal anatomical and neurochemical

organization. The largest component, the striatum (dorsal and ventral), receives input from many brain areas beyond the basal ganglia, but only sends output to other components of the basal ganglia. The globuspallidus receives input from the striatum, and sends inhibitory output to a number of motor-related areas. The substantianigra is the source of the striatal input of the neurotransmitter Dopaminewhich plays an important role in basal ganglia function. The subthalamic nucleus receives input mainly from the striatum and cerebral cortex and projects to the globuspallidus

The basal ganglia contains many afferent glutamatergic inputs, with predominantly GABAergic efferent fibers, modulatory cholinergicpathways, significant dopamine in the pathways originating in the ventral tegmental area and substantianigra, as well as various neuropeptides. Neuropeptides found in the basal ganglia include substance P, neurokininA, cholecystokinin, neurotensin, neurokinin B, neuropeptide Y, somatostatin, dynorphin, enkephaline. Other neuromodulators found in the basal ganglia include nitric oxide, carbon monoxide, and phenylethylamine

Literature Review of DAABS-2,SAAAB,SABFAT5& SABFAT6
Their constituents includes**;**
1.**DAABS2**-Maize seed,Bitter Leaf and White Yam Tuber
2.**SAAAB**- sesame seeds,bitterleaf,Garlic,Aloevera,sugar cane and Love-lie bleeding.
3.**SABFAT5-** Sesame seeds,Bitterleaf,GarlicBulb,AloeveraLeaf,Sugar cane Leaf, Love-lie bleeding Leaf and Lemon Leaf

4.SABFAT6- Love-lies bleeding leaves,Bitterleaves,Aloevera,sugarcane,Garlic bulb, Lemon leaves and Sesame seed.

Analysis of Some of these components
YAM TUBER
Dioscorearotundata the white yam, and *D. cayennensis* the yellow yam, are native to Africa. They are the most important cultivated yams. In the past, they were considered as two separate species, but most taxonomists now regard them as the same species. Over 200 varieties between them are cultivated.

White yam tuber is roughly cylindrical in shape, the skin is smooth and brown, and the flesh is usually white and firm. Yellow yam has yellow flesh, caused by the presence of carotenoids. It looks similar to the white yam in outer appearance; its tuber skin is usually a bit firmer and less extensively grooved. The yellow yam has a longer period of vegetation and a shorter dormancy than white yam.

The Kokoro variety is important in making dried yam chips.

They are large plants; the vines can be as long as 10 to 12 m (33 to 39 ft). The tubers most often weigh about 2.5 to 5 kg (6 to 11 lb) each, but can weigh as much as 25 kg (55 lb). After 7 to 12 months' growth, the tubersare harvested. In Africa, most are pounded into a paste to make the traditional dish of "pounded yam", known as Iyan.

Raw yam has only moderate nutrient density, with *appreciable content* (10% or more of the Daily Value, DV) limited to potassium, vitamin B6, manganese, thiamin, dietary fiber, and vitamin C (table). But raw yam has the highest potassium levels amongst the 10 major staple foods of the world. Yam supplies 118 calories per 100 grams. Yam generally has a lower glycemic index, about 54% of glucose per 150 gram serving, compared to potato products.

Bitter leaf-The biological active compounds of bitter leaf(Vernoniaamydalina)are saponins,flavonoids,alkaloids,terpenes,coumarins,phenolicacid,lignans,xanthones and anthraquinone,edotides.The chemo-preventive properties of bitter leaf have been attributed to their abilities to scavenge free radicals,inducedetoxification,inhibits stress response protein and interfere with DNA binding activities of some transcription factors. Bitter leaf also helps to cleanse such vital organs of the body like the Brain ,liver and the kidney. Bitter leaf is also used in the treatment of skin infections such as ringworm, rashes and eczema. However, bitter leaf and other vegetables contain both essential and toxic metals over a wide range of concentrations (Ogbonda et al. 2013).

Garlic Bulb: The herb plant belongs to the family of Alliaceae, in the genus, Allium; and scientifically known as Allium sativum. It is believed to be originating in the mountainous Central Asian region, from where it spread all over the temperate and subtropical regions the world.
•   Allicin and other essential volatile compounds also found to have antibacterial, antiviral, and anti-fungal activities.

• Garlic is an excellent source of minerals and vitamins that are essential for optimum health. The bulbs are one of the richest sources of potassium, iron, calcium, magnesium, manganese, zinc, and selenium. Selenium is a heart-healthy mineral and is an essential cofactor for antioxidant enzymes within the body. The human body uses manganese as a co-factor for the antioxidant enzyme, superoxide dismutase. Iron is essential for red blood cell formation.

• It contains many flavonoid antioxidants like β - carotene, zeaxanthin, and vitamins like vitamin-C. Vitamin-C helps the body develop resistance against infectious agents and scavenge harmful, pro-inflammatory free radicals.

Garlic cloves have amazingly high levels of vitamins and minerals. Just 100 g provides (in % of recommended daily allowance):

95% of vitamin B-6 (pyridoxine), 52% of vitamin C, 33% of copper, 21% of iron, 18% of calcium, 26% Selenium, and 73% of manganese .

In his Natural History, Pliny gives a list of scenarios in which garlic was considered beneficial (N.H. xx. 23). Galen, writing in the second century, eulogized Garlic as the "rustic's theriac" (cure-all) (see F. Adams' Paulus Aegineta, p. 99). Avicenna, in The Canon of Medicine (1025), recommends garlic for the treatment of a wide variety of ailments including arthritis, snake and insect bites, parasites chronic cough, and as antibiotic for infectious diseases. Alexander Neckam a writer of the 12th century (see Wright's edition of his works, p. 473, 1863), discussed it as a palliative for the heat of the sun in field labor. In the 17th century, Thomas Sydenham valued it as an application in confluent smallpox, and William CullensMateriaMedica of 1789 found some dropsies cured by it alone. Garlic was used as an antiseptic to prevent gangrene during World War I and World War II.

Aloe vera

Aloe vera (/ˈæloʊiː/ or /ˈæloʊ/) is a succulent plant species of the genus Aloe .An evergreen perennial, it originates from the Arabian Peninsula, but grows wild in tropical, semi-tropical, and arid climates around the world. It is cultivated for agricultural and medicinal uses. The species is also used for decorative purposes and grows successfully indoors as a potted plant.

Aloe vera contains 75 potentially active constituents: vitamins, enzymes, minerals, sugars, lignin, saponins, salicylic acids and amino acids:

i. Vitamins: It contains vitamins A (beta-carotene), C and E, which are antioxidants. It also contains vitamin B12, folic acid, and choline. Antioxidant neutralizes free radicals.

ii. Enzymes: It contains 8 enzymes: aliiase, alkaline phosphatase, amylase, bradykinase, carboxypeptidase, catalase, cellulase, lipase, and peroxidase. Bradykinase helps to reduce excessive inflammation when applied to the skin topically, while others help in the breakdown of sugars and fats.

Iii Minerals: It provides calcium, chromium, copper, selenium, magnesium, manganese, potassium, sodium and zinc. They are essential for the proper functioning of various enzyme systems in different metabolic pathways and few are antioxidants.

iv. Sugars: It provides monosaccharides (glucose and fructose) and polysaccharides: (glucomannans/polymannose). These are derived from the mucilage layer of the plant and are known as mucopolysaccharides. The most prominent monosaccharide is mannose-6-phosphate, and the most common polysaccharides are called glucomannans [beta-(1,4)-acetylated mannan].

v. Anthraquinones: It provides 12 anthraquinones, which are phenolic compounds traditionally known as laxatives. Aloin and emodin act as analgesics, antibacterials and antivirals.

vi. Fatty acids: It provides 4 plant steroids; cholesterol, campesterol, β-sisosterol and lupeol. All these have anti-inflammatory action and lupeol also possesses antiseptic and analgesic properties (Chithra et al. 1998;Roberts&Travis 1995;Sato et al,1990).

Antiseptic effect: Aloe vera contains 6 antiseptic agents: Lupeol, salicylic acid, urea nitrogen, cinnamonic acid, phenols and sulfur. They all have inhibitory action on fungi, bacteria and viruses (Hart et al 1990;Heggers et al 1996;Hutter et al 1996;Ishii et al 1994;Kim et al 1997,1999;Sydiskis et al 1991;West DP, Zhu YF,2009).

II. Research Methodology

RESEARCH MATERIALS
-Informed Consent Form
-Structured Questionaires were administered to participants.
-Patients diagnosed of Parkinson Disease with satisfactory clinical and EEG result
-DAABS2(500mg capsule)
-SAAAB(500mg Capsule)
-SABFAT5(500mg Capsule)
-SABFAT6(500mg Capsule)

-Placebo(500mg Capsule Each)
-Laptop computers for analysis and recording of data
-Pen/pencil
-paper(A4)
-Sphygnomanometer
-Thermometres(6)
-Stethoscopes(6)

METHOD
Sample Size -The Sample size for the survey was 10 patients .All diagnosed of Parkinson disease with slightly variable clinical features.

Cross sectional simple random sampling technique using the lottery method was adopted in selecting the patients and the control for the research. Five patients labeled X were given the DAABs2,SAAAB,SABFAT5 &SABFAT6 combo while the 2ndgroup labeled Y were placed on the placebo combo all were 500mg capsule each at a single dose twice daily for 15 days. The research started on the 30th of November,2020 and ended on the 14th of December,2020.This was a double-blind research carried out at the African Alternative Medicine Clinic, Apo,Abuja,Nigeria.Patients were placed on two appoints a week apart.We were focusing on the following motor symptoms- 1.tremor, 2.rigidity, 3.slowness of movement, and 5.difficulty with walking and also on Anxiety and Depression

III. Results

Ist Appointment-6th December 2020
Group X-
Tremor^{+},
 Rigidity^{+},
Slowness of movement^{+},
 Difficulty with walking^{+},
Anxiety^{++}and
 Depression++
GroupY-
Tremor^{-},
Rigidity^{-},
Slowness of movement^{-},
Difficulty with walking^{-},
Anxiety^{--} ,and
Depression^{--}
2nd Appointment -13th December,2020
Group X-
Tremor^{++},
 Rigidity^{++},
Slowness of movement^{++},
 Difficulty with walking^{++},
Anxiety^{++} ,and
Depression++
GroupY-
Tremor^{--}
Rigidity^{--}
Slowness of movement^{--}
 Difficulty with walking^{--}
Anxiety^{--}
and Depression^{--}
Key-(+)=Good,(++)=Better.
   (-)=Bad,(- -)=Worse

IV. Discussion of Results

On theFirst Appointment- The patients on the DAABS2,SAAAB,SABFAT5 & SABFAT6 combo(GroupX) felt good on their first appointment on the medication much happy noticing that most of the features of the disease had reduced dramatically.On the contrary those on the placebo combo(Group Y) were sad and depressed their condition was getting worse.

On the 2nd Appointment-The group X patient were feeling better than in the previous appointment with great improvement on their motor symptoms while the Group Y patients were getting worse in both motor and Emotional symptoms.

The distinct contrast can be attributed to the various constituent in the combo that aid in the formation of the neurotransmitter (dopamine) which aid in restoring the patient to normalcy.This combo contains Anthraquinolones,Vitamins,Minerals,fats which aid in the formation of dopamine.The lack of Dopamine is the main aetiology of this disease.

Parkinson's diseases is a Neuro-degenerative disorder that affects movement of the Upper and Lower Limbs. Medical Anthropology can help learning the suffering of the patient and family.This is a global disease with each culture approaching the disease in their own way in terms of Cure. Orthodox Medicine treats Parkinson Disease as any other disorder which can be fixed by use of orthodox Medication and Surgery to easy up the symptoms. Here in Nigeria the use of these African Polyherbal remedies remarkably made the clinical features for Parkinson disease to disappear within a month of taking the polyherbal remedies. Ethnomedical approach looks how the patients are treated in different medical system and what kind of healing system they go through.

Ethnomedical approach in medical Anthropology researches into different explanatory models regarding health and sick roles, healing systems and health seeking behaviors.

DAABS2,SAAAB,SABFAT5& SABFAT6 are derived from the following African plants: Maize seed,Bitter Leaf ,White Yam Tuber,Garlic,Aloevera,sugar cane and Love-lie bleeding,etc as listed above.

The biological active compounds of bitter leaf(Vernoniaamydalina)are saponins,flavonoids,alkaloids,terpenes,coumarins,phenolicacid,lignans,xanthones and anthraquinone,edotides.The chemo-preventive properties of bitter leaf have been attributed to their abilities to scavenge free radicals,inducedetoxification,inhibits stress response protein and interfere with DNA binding activities of some transcription factors. Bitter leaf also helps to cleanse such vital organs of the body like the Brain ,liver and the kidney. Bitter leaf is also used in the treatment of skin infections such as ringworm, rashes and eczema. However, bitter leaf and other vegetables contain both essential and toxic metals over a wide range of concentrations (Ogbonda et al. 2013).

The research aim and objectives are met with the anecdoctal evidence of efficacy in treating Parkinson disease.This will benefit Nigerians,Africans and the world at large.We wish to state here that the occupational hazards in farmers that leads to the disease as a result of the use of pesticides may not apply to Africans who live in tropical rainforest zones because patients seen where not farmers but civil servants,retired military personel,retired public servants who have little to do with farming but still got affected by the diesae.Our observation is that the presence of mosquitoe and the use of pesticides to control them at homes is a strong link .We advocate further research into this in sub-Saharan Africa.The insecticides treated mosquitoe nets may also be a predisposing factor.

V.   Conclusion

African polyherbal formulations like DAABS2,SAAAB,SABFAT5&SABFAT6 should be given a chance in Nigeria,Africa and globally in the treatment of most diseases that appear to have no cure.

RECOMMENDATIONS-We will wish to partner mega pharmaceutical companies in embarking on this research on a larger scale.
ACKNOWLEDGEMENT-We wish to thank our volunteers for your acceptance

To participate in the research and also members of the alternative Medicine clinic,Apo who participated in the research.

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