

DEVELOPING MUSCULOSKELETAL TERMS IN IGBO LANGUAGE

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Abstract

In the western world today, Asian medicine (Chinese and Indian in particular) which was once seen as being diabolic is taught in universities and higher institutions. This was possible as Asians developed medical terms with which they were able to explain their practice. Other tribes such as the Igbo people have a lot to contribute in various domains of human endeavor but are handicapped by the lack of terminology. The aim of this work is to excavate, develop, and create where necessary terms, in the area of the musculoskeletal system. We believe that the availability of terms in various domains will help to keep the Igbo people abreast of the unfolding scientific development and also help them to showcase their indigenous knowledge.

Introduction

The musculoskeletal system consists of the bones and the muscles. The combination of bones which provide the frame work of the body is known as the skeleton. At birth, the human skeleton is composed off 270 bones but decreases to 206 at adulthood because of the fusing together of some bones (Wikipedia free encyclopedia). The skeleton serves six important functions: support, movement, protection, production of blood cells, storage of irons and endocrine regulations.

The muscles on the other hand are fibers with an elasticity that allows it to expand and contract, thus producing movement. According to (Larson 1990), there are about 650 muscles in the human body. These muscles are composed of striated or skeletal muscles and non striated or soft muscles (muscles found in areas such as the bladder, the stomach, and the blood vessels) Not all muscles form part of the musculoskeletal system.

Status of Igbo medical terms

Practically speaking, most internal organs of the body which cannot be seen with the physical eyes or touch by feeling are not named in Igbo language. This situation can be attributed to the nature of the medical system of the Igbo people.

Brief overview of Igbo traditional medical system

Adesina (2011) defined traditional medicine “as the sum total of all knowledge and practices, whether explicable or not, used in diagnosis, prevention and elimination of physical, mental or social imbalance and relying exclusively on practical experience and observation handed down from generation to generation whether verbal or in writing”

From this definition, one can deduce that traditional medicine is handed from generation to generation and has its own diagnostic method of identifying ailment and solution to the problems identified. Its diagnostic measures are not based on empirical studies like the orthodox medicine. Infact, traditional medicine requires the practitioners to be initiated into a secret cult. This initiation enables them to

access the invisible realm to get insight into the matter at hand. Iroegbu strengthens this view by postulating that:

...consulting super human forces in matters of healing rather than throwing the Igbo man into an epistemological dilemma, enables them to reach beyond the endless limitations of human mind. In a serious sense, it allows them engage in the symbolic and intellectual pursuit of resolving the dilemma of achieving true knowledge in regard to suffering and cures

Igbo traditional medicines rely heavily on the spirit intervention because they believe that the psycho-spiritual aspect controls the physical. Hence, the spiritual aspect should be addressed before the medical aspects. The wikipedia free encyclopedia further explains that traditional practitioners look at the ultimate "who" rather than the "what" when locating the cause of an ailment and the answer given comes from the cosmological beliefs of the people rather than looking for the medical or physical reason behind an illness. They attempt to determine the root cause underlying the problem, which is believed to stem from a lack of balance between the patient and his or her social environment or the spiritual world.

Just as the Igbo traditional diagnostic system is shrouded in mystery so is its cure. A healer in Obowo (Nene Elechi) during an interview revealed that the herbs she uses are actually revealed to her by the spirits. . The spirits at times go to the extent of putting marks or signs on leaves to avoid confusions and mistakes. This situation reveals that most Igbo healers and pharmacists are descendants of medical or pharmaceutical family lineage. This does not mean that Igbo trained medical traditional doctors are not potent.

Based on the traditional medical practice, empirical studies have less importance since most of the diagnosis and cure are directed by the spirits. Hence, knowing every little part of the body does not affect the diagnosis and cure of an ailment. On the other hand, in orthodox medicine every detail is very important to diagnose and suggest remedies for an ailment. This is exactly why orthodox medical practitioners were able to identify the number of bones and muscles in the human body.

Today, there is need for the hybridization of medical practice. Some ailments are said to defy orthodox medicine. In such cases, traditional medicine is employed for faster and effective healing. This situation is very prevalent in bone setting.

Davis (2012) posits that:

Well educated traditional healers are preferred option for African patients because of their shared belief system and because they offer personalized information, counseling and treatment based on an understanding of their environment.

Iroegbu (2011) further explain that

...indigenous medical practitioners in Nigeria need to be taken seriously in modern ways of training healers in university settings and moreso in the context of promoting integral health care for development at all levels. The key focus is on how levels of care should necessitate the recognition of the rich medical resources requiring endogenous imagination and biomedical logic and creativity. It calls that ethnographic studies are of necessity to further

examine the dimensions of Igbo medicine and culture – and advances that critical reports from endogenous medical studies will open avenues to harvest and use the valuable cultural resources and results meaningfully – in giving care and in sustaining the identity of Igbo medicine and culture in its own right

This, therefore, implies that African traditional medicines (Igbo traditional medicine) have a lot to contribute in the field of medicine if well harnessed. Hence, For the Igbo people to contribute this all important quota, there is need for the availability of terminology in special areas.

Issues on terminology

Terminology can be defined as a structured set of concepts and terms of a specific subject field in a specific language. As an abstract noun, terminology denotes the subject field of terminology studies, guided by theories. The first terminology theory is known as the General Traditional Terminology theory (GTT) was inspired by Wuster. It emerged from the experience he gained in the process of compiling a multilingual dictionary he called ‘the Machine tools’. In his work, Wuster was concerned with the methodological and normative aspects of terms. For him, Terminology is a tool for effective communication and disambiguation of scientific and technical expression Cabre (2000). The GTT was then developed by the School of Vienna. In this theory, Wuster’s successors interpreted his ideas and outlined the general principals of terminology.

The GTT is to be the most prominent terminology theory. It inspired most research and spread its influence beyond Europe. This theory is criticized in some areas by the socio terminologists. According to them, the GTT main focus is on concepts and they also concentrate their practical application on the standardization of terms and concepts while ignoring the fact that, the search for universal conceptual units and its aim at uniformity of communication does not account for the complexity of the actual terminological phenomena occurring in texts. This criticism led to the introduction of socio terminology approach which introduced the socio-cognitive theory. This approach, questioned the validity of the traditional theory and its principles of application. They also identified the importance of culture in terminology research. For them, the social acceptability of terms is more important than its standardization. Today, there is a high demand for the revision of terminological theory and the need for a propagation of a terminology theory which will account for both representational and communicative function of terms.

A brief history of medical terminology

Greek was the first language of medicine. After the Roman conquest, most practicing doctors in the Roman Empire were Greeks. Hence Greek language strived for a longer period in the medical parlance. In the beginning of the 1st century BC, a Roman aristocrat called Aulus Cornelius wrote a book called DE Medicina (an encyclopedic overview of medical knowledge) in Latin. In the process of writing this book, he encountered the problem of lack of terminology in the target language. To solve this problem, he employed the following strategies.

- a) He imported a few Greek terms directly to Latin (loaning). In importing the terms, he preserved their Greek grammatical endings. Example pyloros now pylorus, eileos now eileus (adapted from Henrick.R.Wulff)
- b) He Latinized Greek words writing them with Latin letters (naturalization). He replaced Greek endings with Latin endings. Example, stomachus, bronchus.

He retained the vivid imagery of the Greek terminology by translating Greek phrases into Latin. (Calques/loan translation). For example, words like *dentes canini- kynno dente*, (dog teeth). From the above, most medical terms have Latin origin. Hence medical terminology is defined as:

the language of the medical field, with roots in Latin and Greek words. This terminology has evolved over time; in fact, it's often described as a "living language" because it has continued to change in shape and scope over generations of usage. For a medical terminology research paper, you could focus on different elements about the study of and practical uses for medical terminology. Hollis (2014)

During the middle ages, scholar from Arab world made contribution to medical literatures by introducing Arab terms into medicine. The renaissance and the publication of *De Medicina* introduced the full era Latin medical terminology. This led to the translation of all Greek and Arabic medical terms into Latin.

The national medical languages which comprise of medical English, medical French, medical German, medical Italian and many others followed the medical Latin. These national languages did not confine themselves to importing terms all ready found in medical Latin, they created new terms in their languages, borrowed and naturalized some terms. New concepts were named in their languages. The world is advancing into the era of medical local languages terminology. Igbo language is not left out in this race.

Methodology

There are various methods of term creation and development in Igbo language. No one method is good enough. Terminology research involves a combination of methods to arrive at an acceptable result. The following strategies are useful in terminology research and development in Igbo language, extra-language borrowing, intra-language borrowing, calques, slang elevation, naturalization, compounding, coining, equivalence, explanation. The above mentioned strategies are fully discussed in Emenanjo (1989), Cookey and Iwunze (2006). In this work, some strategies of term creation and development featured more than the other. They are: calques, explanation, and intra language borrowing.

Calque is said to be a type of loan translation. It implies a word for word translation of an expression or a sentence. In the case of medical terminology research, this strategy is very useful due to the nature of medical terms. It is an established fact that medical terms have Latin origin. Even today, some of them are still in Latin. These Latin terms by nature are compound words (the combination of two or three different words with different meanings to form a term in medical parlance). Examples: *Gyneacology* *gynea* + *logy* (Woman +study)
Osteoporosis *oste* + *poro* + *sis* (bone+ poor/weak + condition, state, action)

To an individual conversant with Latin language, understanding medical terms will not be a difficult task even if he is uninitiated to the domain, he will be able to grasp a global knowledge of the term in question. We believe this was the aim of Celcus while writing his book *De Medicina* in Latin. Hence to remove this mysterious veil that is associated with medical terms and also for easy understanding of the term, the strategy of calquing was employed. This time not to add cultural color

to the work as it at times implies in translation but to facilitate understanding and inspiration that is mostly needed in medicine.

Ex. Cheek bone - ọkpụkpụ agba
Knee cap - okpo ọkpụkpụ ikpere

Explanation is another strategy employed in this work. Most terms in European languages do not have equivalents in Igbo language. To combat this problem, some terms are explained. This brief explanation could take the form of transposition. The motivation in the explanation process in the source language could be taken from the cause of the ailment while that of the target language could be extracted from the effect of the ailments. Ex. Osteitis is the sickness cause by excess calcium in the body. In the source language, it is the effect while in the target language the cause was taking into consideration.

Osteitis	-	oke ogo nzu
Dislocation	-	gbahe ọkpụkpụ
Sprain	-	ndọka akwara

We also looked at explanation from a different angle; explanation by position, nature and function. A good example is seen in the vertebrae.

Cervical vertebrae	-	ọkpụkpụ olu
Caudal vertebrae	-	ọkpụkpụ ọdụdụ
Axial vertebrae	-	ọkpụkpụ okpiripki ahụ
Thoracic vertebrae	-	ọkpụkpụ obi azụ
Lumbar vertebrae	-	ọkpụkpụ afo

These terms were coined based on their positions in the human body. It is important to note that in terminology development, the motivational factor in the creation of term in the source language may not be the same with that of the target language. A look at the following terms gives us a clearer understanding of the subject at hand.

Sacral vertebrae- according to the Collins English dictionary sacral was created from the word “**sacrum**” which means “**Holy**.” In the 1745-55, this bone was used for sacrifice. Hence it was named out of the value it represented in the culture of origin. In our target language, it does not have the same value. Hence naming the term with the same motivational value will not be appreciated by the target language speakers. The sacral vertebra is positioned at the buttocks. Hence it is called “ọkpụkpụ ike”

Conclusion

Inter-language borrowing is one of the strategies in terminology development and creation. But, in this work, the researcher tried to minimize or entirely avoided borrowing. Borrowing is said to be the easy way out. It is mostly employed by researcher who cannot dig dip into his working language. Inter language borrowing is the last resort in terminology development. From this work we can conclude that every language is capable of expressing its realities in all facets of life (scientifically, socially, economically and also spiritually. It is left for language experts, translators, terminologists and interested people to put heads together to combat this mount hill task if we desire to showcase our indigenous knowledge, and also to imbibe, study and access other people’s knowledge. A popular statement states that if you want to hide information to an Igbo man put it in writing and tell him

stories. Even when the book is given to him, he will not discover what is in the book. Today, the Igbo man is striving to pen down what he knows. For this desire to be achieved there should be enough terminology in the desired domain.

Glossary of some terms and ailments of the musculoskeletal system

English	Igbo	Methodology
Appendicular skeleton	ọkpukpụ ọrụ	coining/position/explanation
Axial skeleton	ọkpukpụ okpirikpi ahụ	coining/position
back ache	azụ mgbụ	equivalence
Ball and socket joints	oghere nkwyue	composition by form
Biceps muscles	akwara mkpi	calques
Bone	ọkpukpụ	equivalence
Carpals	ọkpukpụ ncheke ncheke aka	composition by onomatopic
Carpals tunnel syndrome	mbụ ọba aka	coining/ function
Cartilage	akwara ụdọ	explanation
Caudal vertebrae	ọkpukpụ ọdụdụ	explanation
Cervical vertebrae	ọkpukpụ olu	calques
Check bone	ọkpukpụ agba	calques
Coccyx	ngwucha ọkpukpụ azụ	coining/position
Compact bone	ọkpukpụ asurūasụ	explanation
Disc	efere mbajara	coining/form
Dislocation	mgbahē/nchipụ ọkpukpụ	explanation
Femur	ọkpukpụ apata ukwu	equivalence
Fibula	ogodo nta	equivalence
Fracture	mgbaji ọkpukpụ	equivalence
Ganglion	etuto nchike nchike aka	coining/position
Girdle	njikọ ukwu ọkpukpụ	explanation
Head of femur	isi ogodo	equivalence
Head of the humerus	isi ọkpukpụ akpata aka	calques
Humerus	ọkpukpụ akpata aka	explanation
Humerus radius	gburugburu ogodo aka	explanation
illium	bada bada ọkpukpụ ụkwụ	equivalence
ischium	ọkpukpụ/azụ ọkpukpụ ụkwụ	coining /position
lumbar vertebrae	ọkpukpụ azụ afọ	coining/ position
lower jaw	agba ala	equivalence
muscles	akwara	equivalence
marrow	ụmị	equivalence
meta carpals	ọkpukpụ ọba ụkwụ	coining /position
muscles cramps	ọta ngwere	equivalence
muscles tumor	etuto akwara	explanation
osteporosis	mbelata ogo nzu	explanation
osteomalacia	ụkọ ogo nzu	explanation
osteitis	oke ogo nzu	explanation
ostemeomyelitis	mfuli ụmị ọkpukpụ	explanation
orbit	oghere onya	equivalence
phalanges	ọkpukpụ mpisi aka	equivalence
patella/knee cap	okpu ikpere	calques
pelvis	ọkpụ	equivalence

pelvic girdle	njikọ ọkpukpụ ọkpụ	coining /function
pubis	ọkpukpụ otile	coining /position
pectoral girdle	mbaba ọkpukpụ ukwu	explanation
ribs	mkpisi ngu/ngigara	equivalence
ricketts	ụkọnzụ n'ahụ ụmụaka	explanation
red marrow	umi uhie	calques
skeleton	ngaragada ahu	equivalence
scapula	ọkpukpụ ngu/ ọkpukpụ obu aka	equivalence
sterium	ọkpukpụ abata anra	coining /position
skull	okpokoro isi	equivalence
sacral vertebrae	ọkpukpụ ike	coining/position
sprain	ndọka akwara	explanation
spinal cord	ụdọ ọkpukpụ azụ	explanation
scoliosis	nroji ọkpukpụ azụ	coining/ explanation
spondylosis	nkwegide ọkpukpụ azụ	explanation
supra scapula cartilage	oke akwara ngu	coining/position/ explanation
spine	ọkpukpụ azụ	equivalence
sacrum	ntuala ọkpukpụ azụ	coining/position
spongy bone	ọkpukpụ vurinvuri	coining/onomatopieic explanation
tarsal	ọkpukpụ nchike nchike ụkwụ	coining/ position
thoracic vertebrae	ọkpukpụ obi azụ	coining/position
tibia	ogodo	equivalence
triceps muscles	akwara bara mkpi atọ	explanation
tooth	eze	equivalence
ulna	nne ogodo aka	explanation
upper jaw	agba elu	equivalence
vertebrae colum	ahiri ọkpukpụ azụ	calques
yellow marrow	umi odo odo	calques

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