

Examining the cross-cultural differences that affect longevity globally and strategies that will enhance longevity in Nigeria

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Abstract

The term longevity is used to describe to length or duration a person lives. It is interchangeably used with the term life expectancy and vary across the globe significantly. Longevity vary among countries and also within the same country and is said to be as a result of a combination of factors ranging from Biogenetic, Socio-economic and Psycho-social factors. A close look at the longevity across the globe highlight some nativities that have outstanding history of prolonged longevity. This paper examines the characteristics behaviours of such natives; the Abkhazians' of Georgia, the Hunza of India and the Okinawa's of Japan. Apart from the biogenetic makeup of these natives than are hope to contribute to their prolonged longevity, common activities characterize these natives and seem to be responsible for their outstanding life expectancy. The authors of this paper cleave the indulgence of the good people of Nigeria to embrace these health seeking behaviours (behavioural immunogens) to help prolong the life expectancy of an average Nigeria.

Keywords: Longevity, Life Expectancy, Centenarians, Behavioural, Immunogens

Introduction

As a result of recent demographic changes, such as improved healthcare facilities and declining mortality rates among older adults, reaching advanced old age has become an increasingly common experience in the US and around the world. Bell and



Miller (2002).¹The rapid growth in the number of very old people raises questions about the quality of additional years of life lived by those achieving exceptional longevity.

The World Health Organization has declared that “increased longevity without quality of life is an empty prize”. WHO (1997).² What then is Longevity? Longevity is literary defined as length or duration of life, however the English Encyclopaedia (Wikipedia) articulate that longevity is synonymous to life expectancy, it demographically describe longevity as a term that refers to the long-lived members of a population. The term longevity is globally relative as a man recognised as long-lived in one region of the world may be said to be short-lived in another part of the world. Although much of the research has focus on longevity and quality of life and emphasized health as a major factor, we argue that a more comprehensive understanding of quality of life at advanced old ages could be achieved by additionally considering psychosocial well-being.

Traditional approaches to studying quality of life among those who reach advanced old age are rooted in a biomedical paradigm that emphasizes the avoidance of disease and cognitive and physical declines, Rowe and Kahn[1987].³ There is concern, for instance, that those who survive to very old age spend their remaining years in a state of poor health and functioning and, therefore, have a poor quality of life. Crimmins and Heyward [2010].⁴ Prior research on long-lived individuals indeed confirms that among individuals who survive to exceptional old age there

¹ F. C. Bell and M. L. Miller, Life Tables for the United States Social Security Area, 1900–2100, Social Security Administration, Office of the Chief Actuary, 2002

² World Health Organization, The World Health Report: Report of the Director-General, World Health Organization, Geneva, Switzerland, 1997, http://www.who.int/whr/1997/en/whr97_djmessage_en.pdf/.

³ J. W. Rowe and R. L. Kahn, “Human aging: usual and successful,” Science, vol. 237, no. 4811, pp. 143–149, 1987. View at Google Scholar · View at Scopus

⁴ . M. Crimmins and H. Beltran-Sanchez, “Mortality and morbidity trends: is there compression of morbidity?” The Journals of Gerontology Series B, vol. 66B, no. 1, pp. 75–86, 2010. View at Google Scholar

is a high prevalence of disease and disability as well as impaired cognitive performance, Andersen-Ranberg, et'al [2001].⁵

However, aging is a multidimensional concept, and psychosocial factors that assess psychological and social well-being should be included in conceptual frameworks used to understand the aging process, Aldwin and Gilmer [2004]. It is possible, for instance, that those experiencing health and functioning declines that accompany the aging process are still able to maintain a high quality of life with respect to social and psychological well-being. Thus, while the predominant conceptual framework for understanding the aging process places a strong emphasis on health and functioning, a more inclusive conceptualization of quality of life in advanced ages should also focus on psychosocial well-being.

The Global, Africa and Sub-Sahara Variation in Longevity

The inter-continental and cross-cultural variation in longevity is a clear evidence that health behaviours are related to mortality, for instance, in the United State of America (USA) and the United Kingdom (UK), only three (3) persons out of every one hundred thousand (100,000) live up to one hundred (100) years, whereas in Georgia among the Abkhazian's, four hundred (400) out of every one hundred thousand (100,000) live up to one-hundred (100) years and the longest ever-lived among them was up to one-hundred and seventy (170) years. Odgen (2000)

Global life expectancy at birth in 2015 was 71.4 years (73.8 years for females and 69.1 years for males), ranging from 60.0 years in the WHO African Region to 76.8 years in the WHO European Region, giving a ratio of 1.3 between the two regions. Women live longer than men all around the world. The gap in life expectancy between the sexes was 4.5 years in 1990 and had remained almost the same by 2015 (4.6). WHO (2015).

⁵ K. Andersen-Ranberg, M. Schroll, and B. Jeune, "Healthy centenarians do not exist, but autonomous centenarians do: a population-based study of morbidity among Danish centenarians," *Journal of the American Geriatrics Society*, vol. 49, no. 7, pp. 900–908, 2001. View at Publisher · View at Google Scholar · View at Scopus

According to the World Health Organization (WHO), the average life expectancy in Africa is 52 years of age, while the Global average is 66. Based on the same data, the highest life expectancy in Africa is Tunisia with a 75 year average. Moreover, the highest life expectancy average for a non-island Sub-Saharan country is Eritrea, with a 65 year average.

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The table below summarize the life expectancy across countries in Africa with their respective global ranking in term of longevity.

Table 1. Average life expectancy in Africa for both sex

S/ N	Country	Life Expecta ncy	Wor ld Ran k	S/ N	Country	Life Expecta ncy	Wor ld Ran k
1.	Mauriti us	74.62	78	25	Gambia	61.22	159
2.	Cape Verde	73.29	93	26	Zimbab we	60.66	160
3.	Seychell es	73.19	95	27	Benin	59.95	162
4.	Sao Tome	67.52	127	28	Burkina Faso	59.89	163
5.	Senegal	66.68	128	29	DR Congo	59.85	164
6.	Rwanda	66.06	134	30	Burundi	59.63	165
7.	Gabon	65.97	135	31	Guinea	59.00	166
8.	Namibia	65.81	136	32	Swazilan d	58.92	167
9.	Botswa na	65.67	138	33	Togo	58.43	168

10	Madagascar	65.48	140	34	Malawi	58.28	169
11	Ethiopia	64.80	141	35	Mali	58.25	170
12	Eritrea	64.71	142	36	Equ. Guinea	58.15	171
13	Congo	64.70	143	37	Mozambique	57.62	172
14	Djibouti	63.54	146	38	Cameroon	57.27	174
15	Comoros	63.52	147	39	Somalia	55.04	175
16	Kenya	63.37	149	40	Nigeria	54.46	176
17	Mauritania	63.14	150	41	Guinea-Bissau	53.90	177
18	South Africa	62.86	152	42	Lesotho	53.67	178
19	Ghana	62.44	153	43	Cote d'Ivoire	53.30	179
20	Uganda	62.31	154	44	Chad	53.06	180
21	Liberia	62.03	155	45	Central Africa	52.52	181
22	Tanzania	61.83	156	46	Angola	52.44	182
23	Zambia	61.80	157	47	Sierra Leone	45.99	183
24	Niger	61.80	158				

Source: WHO 2015⁶

Longevity in Nigeria

The life expectancy in Nigeria has increased considerably even though people in many other sub-Sahara African countries still live longer and healthier lives. Study shows that a Nigerian man

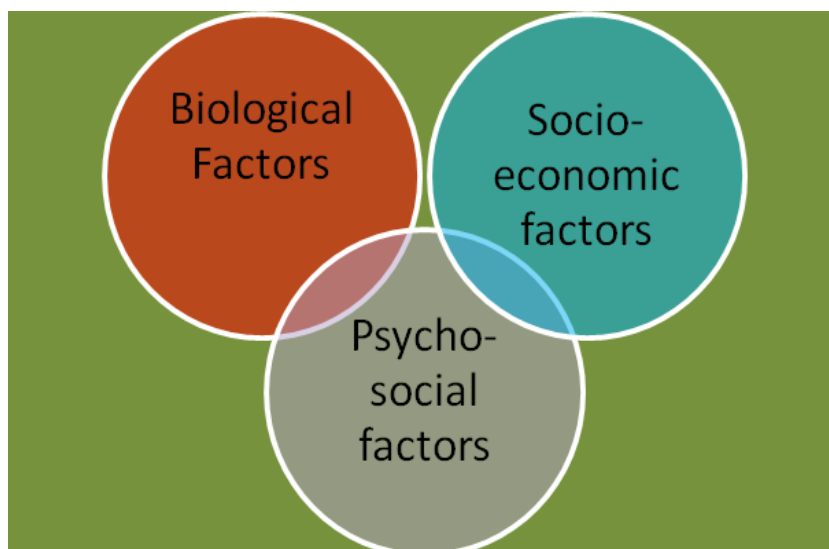
⁶ WHO (2015) Life expectancy in Global Health Observatory (GHO) data Accessible@http://www.who.int/gho/mortality_burden_disease/life_tables/situation_trends_text/en/.

born in 2016 can expect to live 63.7 years, an increase in life expectancy of seven years over the past decade, while a woman has a life expectancy of 66.4 years, up 8.1 years from 2006. Nigeria has a higher life expectancy than South Africa, Niger, and Cameroon, but lags behind Kenya, Rwanda, and Ethiopia. Ifijeh (2017)⁷.

CROSS-CULTURAL FACTORS THAT AFFECT LONGEVITY.

Several factors contributes to prolonging longevity in mankind, the diagram below shows an interplay between, Biological, Social-Economical and Psycho-social factors that influence longevity.

Figure1:Biogenetic factors affecting longevity.



Source: WHO (2015)⁸

⁷ Martins Ifijeh 2017. Nigeria's Life Expectancy Has increased by 8 Years. Health and Wellbeing Accessible @ <https://www.thisdaylive.com/index.php/2017/09/21/nigerias-life-expectancy-has-increased-by-8-years-study-shows>

⁸ WHO (2015) Life expectancy in Global Health Observatory (GHO) data Accessible@http://www.who.int/gho/mortality_burden_disease/life_tables/situation_trends_text/en/.

Biogenetic factors affecting longevity

Research sponsored by the National Institute on Aging revealed that among animals that only about 30% of aging is based on genetics. That means as many as 70% of the factors that influence how long we live might be under our own control.

The journal of internal medicine (1996) enumerated biogenetic factors that enhance longevity as:

- Ecological system around the individual, it postulate that most centenarian lives around mountainous areas. Examples include the Hunza people living along mount Himalayas in Indian, the Abkhazia people that lives near Caucasus Mountains northwest of Georgia.
- Genetic makeup of the individual, the same study postulate that centenarians have low frequency of HLA-DRw9 and high frequency of HLA-DR1, these two Human Leucocytes Antigens (HLA) opposes auto-immune diseases. Similarly low prevalence of e4 allele gene that is associated with reduced risk of coronary heart diseases and increased prevalence of the DD-genotype of angiotensin-converting enzyme (ACE) as the DD-genotype of ACE has which has been reported to be associated with myocardialinfarction is also common among centenarians.

Socio-Economic factors affecting longevity.

Listed under this sub-heading include the following:

- poverty
- poor habit of regular medical check-up
- Alcohol and other substances abuse.
- Poor habit of regular physical exercise
- Uncontrolled eating habit,
- Motor traffic accidents
- Low access to health services.
- Poor sanitary condition
- Poor cultural behaviours

Psycho-social factors affecting longevity.

Also affecting longevity is the level of psycho-social support that is available for an individual, these include

- Stress management
- Social support for the sick and elderly

Examining the life of the Abkhazians, the Hunza's and the Okinawa's

Abkhazia is a partially recognised state on the eastern coast of the Black Sea and the south-western flank of the Caucasus Mountains, south of Russia and northwest of Georgia proper. The Abkhazians are descent of Africa and are also known as African Caucasians. Wikipedia (2007), the Abkhazians have a long outstanding history of longevity with some living up to 170 years.

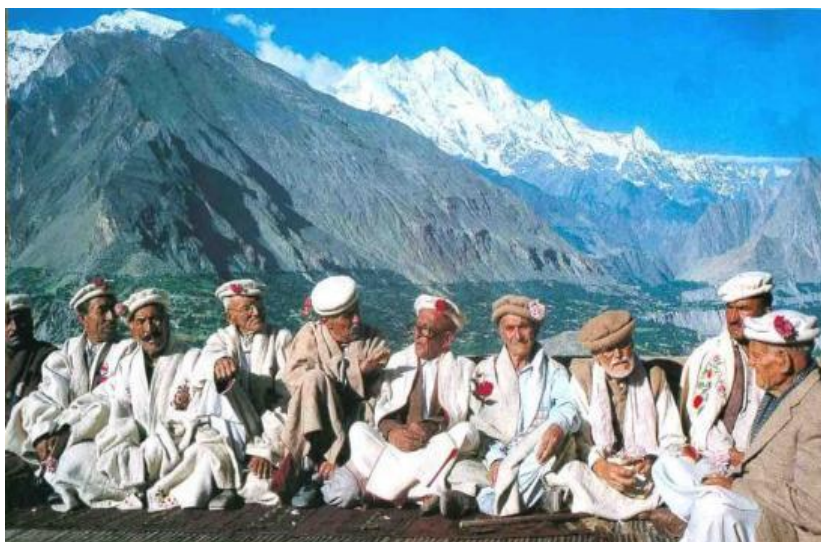
Figure 2: Picture Reflecting the Image Abkhazians with History of Longevity



The Abkhazian people of Georgia. Source⁹:

The Hunza tribe live in an extremely secluded region of the world in the Himalayas and practice simple lifestyle habits which allow them to enjoy excellent overall health and lifespans of up to 145 years. They do it in style, being among the happiest human beings on Earth with near-perfect physiology. Heart disease, cancer, diabetes, obesity, blood pressure issues and other common plagues of the Western world are almost unheard of among the Hunza.

Figure 3: The Hunza people living along mount Himalayas in Indian.



Source: WHO 2015¹⁰

The Okinawan people also known as Ryukyuan people are the indigenous peoples of the Ryukyu Islands between the islands of

⁹ https://www.google.com/search?q=abkhazian&ie=utf-8&oe=utf-8&client=firefox-b&gfe_rd=cr&dcr=0&ei=l3wFWoPFNMXU8ge36pjgAw

¹⁰ WHO (2015) Life expectancy in Global Health Observatory (GHO) data
Accessible@http://www.who.int/gho/mortality_burden_disease/life_tables/situation_trends_text/en/.

Kyushu and Taiwan. Politically, they live in either Okinawa Prefecture or Kagoshima Prefecture. Their languages make up the Ryukyuan language family, they are considered to be one of the two branches of the Japonic language family. The people from the Ryukyu Islands (of which Okinawa is the largest) have a life expectancy among the highest in the world, the traditional diet of the islanders contains 30% green and yellow vegetables.

Figure 5:The Okinawa people in Japan.



Source:WHO 2015¹¹

¹¹ WHO (2015) Life expectancy in Global Health Observatory (GHO) data

A cross examination of these nationalities show that they share common behavioural patterns that may be accountable for their longevity. These characteristics include but not limited to the following:

1. Vigorous work roles and Habits: The Abkhazians who are said to have a genetic link with the Ethiopians (Africa) are found to maintain a rigorous work roles including mountain climbing and exercises.
2. Diets low in saturated fats and meat: On the alternative, these native maintained a diet that is high in vegetables. The Okinawa's in fact lived on a diet that have 30% vegetable.
3. The Abkhazians drinks no alcohol nor smokes and so also among the Hunzas.
4. All are reported to have a low level of stress.
5. All also have a high level of social support especially for the elderly.
6. In all the above listed nativities genetic factors are implicated in their history of longevity.

Suggested strategies to enhance longevity in Nigeria.

1. Vigorous work roles habit.

It is suggested that efforts towards health education should be intensified in our educational institutions with policies develop to lay emphasis on all forms of sporting activities. In many urban centres in Nigeria, it is common to see schools build with fields isolated for games especially in the private schools.

Employers of labours especially the private sector must create avenues for their workers to be engaged in physical exercises. This request focus but is not limited to the bank executives who have no little time for their workers to be involved in any form of physical exercises.

Healthcare workers must take leadership in this advocacy for change.

Regular road-walks and other forms of physical exercises must be encouraged at home, work places and our religious institutions (Since an average Nigeria in religious).

2. Dietary management and diet education

Health and educational institutions must intensify effort to educate both the sick and the healthy on diet management. Health talks and importance of diets that are less in carbohydrate and saturated fat as well as that that have adequate fibres and are rich in vitamins. The healthy population must be given adequate counseling on diet management to avert metabolic diseases such as Diabetics Miletus, Atherosclerosis and other anthropometric disorders.

3. State of emergency against Alcohol and substances abused.

The Nation must work towards formation and implementation of laws against substances abuse in the nation. Regulatory agencies must control the rate of substance abuse in Nigeria with the aim of prolonging longevity of the average Nigerian.

4. Stress Management

Health care worker should be empowered through adequate capacity building to combat the menace of stress management. Educating the general population through any available opportunity is the responsibility of public health workers and should be maximised to avert impending dangers of stress.

5. The Health system strengthening

The Nigerian health system need to be strengthen beginning with budgetary allocation, manpower development, motivation of the healthcare workers and a lot more in order to make health facilities available for the general population.

6. Health System financing

The nation cannot promote longevity of her population with a weak healthcare system that does not make health services available to and affordable by the general public.

7. Public health promotion

There is a need for public health promotion for disease prevention through improve sanitation, enhanced waste management system and vaccine modalities promotion.

8. Improve road network across the federation

An improve road network and rail transportation will reduce motor vehicle accidents and reduce mortality rate that is due to road traffic accidents.

9. Psycho-social support for the elderly

Government must put in place policy that will make provision for social welfare support for the elderly. Our religious and traditional institutions must make definite efforts to restore our forgotten culture of caring for the elders. The long believed norms that was across the nation that “those who wish to reach old age must leave how to obey old age” “must be restored to prolong our longevity.

Conclusion

Longevity varies globally from country to country and among tribes even within the same nation. A closer examination shows that apart from the genetic makeup that predispose some people from living longer than other given other conditions are the same, health seeking behaviours also known as *behavioural immunogens* are capable of prolonging the longevity of an individual that focus on seeking them.

It is therefore the responsibility of health administrators and healthcare worker to educate the general public on health seeking behaviours

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