



Utilization of adult educators for malaria control in Nigeria

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Abstract

This paper focused on the meaning of malaria and the developmental cycle of plasmodium- the parasite that causes malaria in human beings. The dangers and implications of malaria are highlighted in this paper, which include- anaemia, cerebral malaria, renal failure and death. The paper also examines who is an adult educator and what one should see in the life of a good adult educator, that is, qualities of an adult educator. The roles an adult educator should play to control the menace of malaria in Nigeria is elucidated. The importance of sleeping under mosquito treated net at night was also highlighted. The paper concludes and recommends that the federal government of Nigeria should make mosquito treated nets available to all Nigerians to enable us win the battle against malaria attack.

Keywords: adult: educator, malaria, control

Introduction

Malaria is a tropical disease. This means that malaria is prevalent in those countries that are near the equator. Equator is an imaginary line that divides the world into two. Countries that are near to the equator, experience high rate of malaria. For example, Nigeria has hotter and warmer climate in which malaria parasites thrive much. This explains why malaria is endemic in Nigeria. According to World Health Organization (2020) ^[14], malaria parasite (plasmodium) is transmitted by the bite of an infected female anopheles mosquito. When an infected anopheles mosquito bites a person, it injects into the person the plasmodium (sporozoites) that causes malaria. (A sporozoite is the malaria parasite in the saliva of an infected mosquito). This plasmodium is carried by the blood to the liver where it undergoes division and multiplication (exo-erythrocytic cycle). The plasmodium in the liver is called Merozoites (Tulane University, 2023). The merozoites are then pushed into the blood stream where they invade the red blood cells (erythrocytic cycle).

In the red blood cells, they undergo some development and division, known as schizogony. The resulting new generation of merozoites are then discharged from the red blood cells into the blood stream where they in turn attack the red blood cells again. This process is repeated indefinitely. The attacks on the red blood cells cause the malaria episode. However, the circulating parasites (merozoites) in the blood stream can be destroyed by certain anti-malarial drugs and in the case of malignant tertian malaria, this is the end of the malaria infection. But the exo-erythrocytic cycle (merozoites in the liver) accounts for relapses after successful treatment of acute malaria attack. This is because some malaria parasites are hidden in the liver and released into the blood stream intermittently where they cause havoc. Again, not all drugs can kill malaria parasite in the liver (Sears & Winwood, 2016; Tulane University, 2020). In addition, there are five types of plasmodium in literature today. They include: Plasmodium Falciparum, plasmodium Vivax, plasmodium Ovale, plasmodium malariae and plasmodium Knowlesi-

commonly seen in South East Asia. Of all the plasmodia, plasmodium Falciparum is most prevalent in Nigeria and very difficult to treat (Dawaki, Al-melchiafi & Ithoi, 2016; Michael, Aliyu & Grama, 2017) ^[5].

Despite global efforts, malaria still accounts for preventable high morbidity and mortality rate in Africa (Michael, Aliyu Gwana, 2017). This is in line with the view of WHO (2020) ^[14] which asserted that in 2019 African region was home to 94% of malaria cases and deaths in the world. WHO went further to state that in 2019, there was an estimated 229 million cases of malaria world wide and 409 thousand deaths globally. Dawaki, Al-me khiafi and Ithoi (2016) ^[5] submitted that malaria is one of the most severe public health problems globally, particularly in Africa where Nigeria has the greatest number of malaria cases. This corroborates the findings of the World Health Organization (2019) ^[15] which said that Nigeria had the highest number of global malaria cases in 2018 and the highest number of global malaria deaths the same year. Furthermore, WHO (2019) stressed that malaria is a risk for 97% of Nigeria's population and that there are an estimated 100 million malaria cases with over 300,000 deaths per year in Nigeria. This is alarming and needs urgent attention. There is every need to reduce the menace of malaria in Nigeria via the activities of adult educators.

An adult educator is a person who possesses specialized knowledge, skills or interest in specific fields and has the desire and passion to impart such knowledge to other adults. He is a person that helps adults learn using andragogical principles. An adult educator, therefore, is a facilitator of any adult education programme. An adult education programme may be for example, organizing seminars, or workshops on how to reduce the morbidity and mortality rate of malaria in Nigeria or in any other community. It may also be carrying out programme on how to stop diarrhoea in cases of epidemics in a particular community. Adult education programme may be organized by an adult educator to teach a group of people or a community on how to

make their drinking water potable. In this sense, Nzeneri (2008)^[10] sees an adult educator as an organizational administrator. On the other hand, Ugwoegbu (2014)^[13] sees adult educator as all comers' affair. The author opined that anyone who has some responsibilities to perform in order to help adults learn, is an adult educator. Such people, according to, the author include- religions leaders, mass media worker, Health workers, supervisors, foremen in organization, health educators, Nurses and midwives and many others.

Ani (2010)^[2] categorized adult educators into three group, namely: First group includes those adult educators who work with specific adult target population, examples of this group include, part-time teachers who work as instructors in adult literacy classes, community leaders and volunteers. The second group are those who are specialists in other disciplines but not in adult education, for example, agricultural extension officers, Health workers such as Doctors, Nurses, Midwives, Health educators; Lawyers. This group of specialists is mainly concerned with educating adults in their own fields. A lawyer who is giving legal advice to a group of adults is engaged in adult education. Similarly, a doctor or a nurse who is giving medical advice to a group of pregnant women on how to have safe delivery is an adult educator, as well as, a health educator who is giving health talks on how to curb the incidence of malaria in a community. The third groups is made up of are the professionals in adult education. The professionals are adult educators who are trained in the principles and practices of adult education enterprise. They are full time adult educators who specialize in conducting researches and in policy making for and in the field of adult education. Examples of this group are adult education lecturers and professors in the university and colleges of education in Nigeria.

Nzeneri (2008)^[10] identified the following as the basic attributes or qualities of an adult educator. They are: inspiration, identification of the learners needs, identification of individual differences among learners and resourcefulness. A good adult educator is expected to inspire in the learner the desire to learn. Learners have individual differences in terms of age, sex, backgrounds, socio-economic and political status. An adult educator is expected to harmonize these differences to make learning appealing to all learners despite their sex or status. An adult educator, equally should be resourceful. A resourceful adult educator should know how to manage and improve all learning and teaching situations through effective control of learning (Nzeneri, 2008)^[10]. And being resourceful means also that an adult educator should know how to improvise learning materials and make teaching and learning environment attractive to learners, in case of shortage so as to sustain the interest of the learners. An adult educator should see himself as a learner too. This will help him to be humble.

Role of adult educator in controlling malaria in Nigeria

The role of adult educators in controlling malaria in Nigeria cannot be over emphasized. Adult educators should be integrated into malaria control activities in Nigeria both at community, state and federal government levels. Malaria information should be made available to all adult educators visiting hospital or any health facility in the country (Chirdan & Afrmed, 2008)^[7]. Access to malaria information will assist adult educators to be knowledgeable about malaria prevention. This in turn, will help

them do their job of malaria eradication in the country efficiently and effectively. Ani (2010)^[2] and Ugwoegbu (2014)^[13] noted that knowledge ability is one of the good qualities of adult educators. The authors emphasized that adult educators should be knowledgeable in the theory and practice of adult education. The federal ministry of Health and other related agencies should equally integrate adult educators in the malaria control programmes in the country. This will help to achieve the objectives of sustainable development goals (SDGS) of combating malaria in Nigeria (acciona, 2019)^[11]

Another major role which adult educators should play in controlling malaria in Nigeria is by sensitizing the public on the importance of environmental sanitation. They should urge the public to maintain personal hygiene and clear all surrounding bushes around their homes, drain all stagnant waters in the gutters or cover them with paraffin to prevent breeding of mosquitoes. This is because mosquitoes breed more on dirty environments, bushes and stagnant waters. Adult educators can achieve the awareness creation by organizing workshops, seminars, and symposium on the importance of environmental sanitation to prevent breeding of mosquito which causes malaria. Michael, Aliyu and Grema (2017)^[8] lamented that the one of the major barriers to preventing malaria in Nigeria is lack of time for environmental sanitation. It is a common knowledge that sleeping under mosquito treated net is the most widely adopted preventive measure against malaria. This is because in the majority of malaria endemic regions of the world, especially Africa, the female anopheles' mosquito that transmits malaria only bites at night.

According to Global citizen (2018)^[7], mosquito nets could prevent millions of malaria cases around the world. Continuing, the author said that mosquito treated nets have been able to decrease clinical malaria cases by 12% in Burkina Faso. If insecticide treated nets can reduce malaria attack in Burkina Faso by 12%, it can do more in Nigeria. Mosquito treated nets do not only destroy mosquitoes that perch on them but also creates a physical barrier between mosquito and man. WHO (2020)^[14] asserted that insecticide treated nets reduce the risk of malaria in pregnant women. WHO (2020)^[14] went further to say that evidence shows that in malaria endemic areas such as Africa, sleeping under mosquito nets treated with an insecticide is beneficial to the health of the pregnant women, her foetus and the new-born infant. For the unborn child, maternal malaa increases the risk of spontaneous abortion, still birth, premature delivery and low birth weight- a leading cause of child mortality. It is a truism that malaria is not contagious but malaria parasite can pass from the infected mother to her baby in the womb through the placenta. A work carried out by Ntonifor and Veyufambom (2016), affirmed that sleeping under mosquito treated net is an effective preventive measure against malaria. This confirms the report of the WHO (2015) on the use of mosquito treated nets as a means of reducing the lethal impact of malaria globally.

Seeing the effectiveness of mosquito treated net to combat malaria malaise, adult educators should be on the forefront to educate the Nigeria citizenry both urban and rural dwellers, on the importance of sleeping under mosquito treated nets to reduce the incidence of malaria in Nigeria. They should embark on advocate visit to the emirs in the Northern Nigeria to diffuse the negative perception of their subjects on the use of mosquito net. They should also embark on similar visit to the Oba's in the West

and Igwes, town union presidents, community leaders in the East, to sensitize them and their subjects on the need to sleep under mosquito nets.

Adult educators could also embark on country wide crusade or campaign against mosquito bite. They can do this through placing adverts on the Radio and Television, use of jingles, on the dangers of mosquito bite. The federal government of Nigeria can support them by funding the production of hand bills, posters, billboards that carry the inscription – Mosquitoes are dangerous to health. Awareness creation on the part of adult educators, on the use of mosquito repellents is necessary, if the country must win the fight against malaria. Mosquito repellents are many and varied, for example, non-smoke mosquito coils, insecticide spray, mosquito repellent mat, mosquito repellent liquid, mosquito repellent wrist band (Dayong, 2018, & Aogrand, 2018) ^[6, 3]. Unfortunately, Micheal, Aliyu and Grema (2017) ^[8], said that many homes do not use mosquito repellents because they are expensive. Equally adult educators should emphasize physical or mechanical killing of mosquitoes whenever they are found around our homes to check their menace.

Conclusion

Malaria is a devastating disease that cuts across men, women and children. It drains the economy of nations. WHO (2020) ^[14] states that in 2016, there are estimated 216 million cases of malaria in 91 countries, most especially Africa. In 2019, 6 countries, including Nigeria accounted for approximately half of all malaria deaths worldwide. Children under 5 years of age were the most vulnerable group affected by malaria. Despite the menace nature of malaria, malaria is preventable, treatable and curable. Adult educators should all put hands on deck to make sure that malaria is controlled if not, eradicated in Nigeria. They should mount serious campaigns, pay advocate visits and sensitize the public on the dangers of malaria. Malaria can lead to Anaemia, spleen enlargement, cerebral malaria (– when malaria parasite enters the brain rendering the victim in temporary madness), renal failure – (when the malaria parasite blocks the renal artery) and then death. It is, therefore, pertinent that if adult educators are fully integrated in reducing mosquitoes, the rate of malaria in Nigeria will be reduced.

Recommendations

The following recommendations are proffered

1. The federal government of Nigeria should make available mosquito treated nets to every home in Nigeria, according to the size of each family, so that Nigerians should start practicing how to sleep under the mosquito nets to avoid malaria attack.
2. The federal government of Nigeria should subsidize the cost of mosquito net in the country so that it will be accessible and affordable to every home in the country, whether rich or poor.
3. Serious campaign should be mounted everywhere in Nigeria by all levels of government, federal, state and Local governments on the need for all Nigerians to learn how to sleep under mosquito nets to avoid the menace of malaria. Professional adult educators should be given automatic employment after graduation to enable them carry out this onerous task of educating and sensitizing Nigerians on the

need for environmental sanitation and malaria control in Nigeria.

References

1. Acciona. What are sustainable development goals, 2019 Retrieved from www.ctovesustainability.com on 3rd May, 2019.
2. Ani RO. An Introductory approach to the study of adult education. Donsibad communications, Onitsha, 2010
3. Ao Grand. Mosquito coils, 2018. Retrieved from www.aogrand.com on 3rd August, 2018.
4. Chirdan OO, Afrimed A. Impact of health education on home treatment and prevention of malaria in Jengre, North Central Nigeria, 2008. Retrieved from www.bmeets.ncbi.nim.nib.gov.
5. Dawaki S, Al-mekhiafi HM, Ithoi I. Nigeria winning the battle against malaria? Prevalence, risk factors and kap assessment among Hausa communities in Kano State. *The Malaria Journal*, 2016;15:13,35.
6. Dayong. Mosquito repellent wrist bands with refill, 2018. Retrieved from www.Dayongft.com on 20th June, 2018.
7. Global citizen. New mosquito nets, 2018. Retrieved from www.givingcompass.org on 9th October 2018.
8. Michael G C, Aliyu I, Grema BA. Knowledge of malaria and adherence to its preventive measures every adult attending outpatient clinics of a Nigeria tertiary hospitals. Has anything changed? *Afri Jmed Health Sci*, 2017;16(2):43-51).
9. Ntonifor NH, Veyufombom S Assessing the effectiveness of mosquito nets in the prevention of malaria. *The Malaria Journal*, 2016;15(1):390.
10. Nzeneri, I. S. Handbook on adult education principles and practices. New edition: Abigab Associates Ltd, Uyo, 2008.
11. Sears WG, Win wood RS. *Medicine for nurses*, 2016. Retrieved from <https://www.amazon.com> on 27th October, 2016.
12. Tulane University. Plasmodium lifecycle, 2020. Retrieved from <http://www.tulane.edu> on 28th April, 2020.
13. Ugwoegbu IT. *Adult education: Principles and programme design*. Onitsha: E kumax Company Ltd, Onitsha, 2014.
14. World Health Organization. *Malaria*, 2020. Retrieved from www.who.net on 30th November, 2020.
15. World Health Organization. *World malaria report, 2019*. Retrieved from www.severemalaria.org on 11th, November, 2019.
16. World Health Organization. *World malaria report*, Geneva: World Health Organization press, 2015.