

Perspective

Neglected tropical diseases: less known subjects amongst health care professionals

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Abstract

Wilson Karoke expressed concern about the low priority the governments in developing countries paid to common tropical diseases. They have limited funding for research and for programs to address the problem. Even more sadly, health workers get less exposure to information on research and discussion on diseases considered as which can further make the problem neglected.

Neglected Tropical Diseases (NTDs) are the most common infectious diseases of the world's poor. Spread by insects like mosquitoes and flies, or through contact with contaminated water or soil, these diseases disable and debilitate one in six people worldwide, including half a billion children. Despite the NTDs horrific, debilitating, disfiguring and painful conditions, many health care professionals in the developing countries lack basic clinical and epidemiological knowledge of these diseases. In areas of less endemic NTDs profile like Papua New Guinea and apart from the traditionally known hookworms, ascariasis, typhoid, leprosy and scabies infections, they do not know, for instance, onchocerciasis, schistosomiasis, trachoma, trichuriasis, zika virus, chichunkunyan, yaws, cholera etc. These diseases continue to perpetuate a cycle of poverty that continues from generation to generation and are the most common afflictions of the world's poorest people. Its horrific impact also has serious implications on their nutritional status, their ability and accessibility to better education, health and economic productivity.

Their lack of knowledge is one of the biggest challenges to controlling and eliminating NTDs. The health care professional's lack of knowledge and skills in understanding, diagnosing and management of NTDs reflect the kind of medical trainings and skills attained during their early undergraduate trainings.

A study done by Renato A involving medical students in Peru revealed that both clinical and epidemiological information was lacking amongst medical students. From

the findings of his study, he emphasized the importance of health education amongst health care profession. The health care professionals must be properly inducted on the subject of NTDs. It is a critical step in the right direction in controlling and elimination NTDs(1).

In 2000, the United Nations through its Millennium Development Goals highlighted the importance of neglected tropical diseases and encouraged member countries to improve its efforts in progress of diagnosis, treatment and prevention of these infectious diseases. Five years later in 2005, World Health Organization (WHO) created the new department called "Department of Control of Neglected Tropical Diseases. However, member countries including Papua New Guinea are still struggling in their efforts to control NTDs while more and more people are afflicted with one or more NTDs each day.

A recent study done by Kevin Kline, on the neglected tropical diseases in Oceania, primarily concluded that the population in Papua New Guinea are still at high risk from selected NTDs, including *Necator americanus* hookworm infection, strongyloidiasis, lymphatic filariasis (LF), balantidiasis, yaws, trachoma, leprosy, and scabies, in addition to outbreaks of dengue and other arboviral infections including Japanese encephalitis virus infection that are endemic in neighboring South Pacific and South East Asian Countries. This off course is attributed to lack of knowledge and skills by health care professions in the appropriate diagnosis and management of these infections. Several other emerging viral neglected tropical

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diseases such as Ebola and Zika virus infections are now important threats to Papua New Guinea (2). Recently, reports of Zika Virus has been reported on Sumatra Island of Indonesia. Studies are now underway to determine the possibility of Zika Virus been sexually transmitted apart from beena vector borne disease.

Amongst the several strategies for combating NTDs, Global Networking has received incredible results across South East Asia and the Sub-Saharan countries. Global Networking groups such as OEPA (Onchocerciasis Elimination Program) and END7, an organization targeted at eliminating the seven most common NTDs by 2020. Global Networking groups satisfactory fill in the training, lack of knowledge and skills gap in developing countries country. These organizations carry out on site trainings in recognizing and differentiating the difference between various NTDs such as soil transmitted helminthes, different food and water-borne diseases etc. Also, another study by Jon Isham, on Treating and Eliminating Neglected Tropical Diseases stressed the importance of strong government commitment and organization. To use the existing institutions such as schools, non-government organizations, religious groups etc. to disseminate strategies to control and eliminate NTDs (3).

The NTDs control program will have to be holistically addressed by all sectors of the society. The programs may involve policy development at the health ministry level, Universities and other research institutes carrying out research, pharmaceutical companies making the drugs readily available, global networking groups, community based organization, religious groups, volunteers etc. to carry out awareness, training, distribution of drugs etc. Collective collaborative from allsector of the society can bring us closer to eliminating NTDs in the world. A cross sectional study by Nasr on the Parasites and vectors on children, aboriginal children in the outback of Australia were confirmed that using unsafe water supply as a source for drinking water, absence of a toilet in the house, large family size (≥ 7 members), not washing hands before eating, and not washing hands after defecation were the key factors significantly associated with STH among these children (4).From this study , it is conclusive that to reduce the alarmingly high prevalence of STH among Orang Asli children, the program will need people with knowledge on implementing school-based de-worming programs, people with knowledge on providing a suitable and proper sanitation for the community as well as people with knowledge on treating drinking water supply and people with knowledge with knowledge on proper health education regarding good personal hygiene practices. Such an integrated control program will help significantly

in reduction in everyone in the society work together.

Sixteen years have lapsed since the inception of the NTDs agenda by the United Nations through its MDG. Twelve years ago, WHO created the department responsible for Neglected Tropical Diseases in the World. The problems of NTDs continue to inflict the world's poorest people in developing countries. Lack of knowledge and skills in identifying and appropriately treating NTDs has been one of the many setbacks that have allowed this infectious diseases to thrive. For instance, in remote communities, both health care workers and local communities do not know that dogs carry rabies, snails carry parasites that causes schistosomiasis and some NTDs are not sorcery or black magic. With proper health education and awareness, the people can learn to identify and prioritize their lifestyle habits in doing their daily chores or activities.

Health education, training and awareness are key tools in the right direction in reducing the burden from Neglected Tropical Diseases. The health worker training institutions also play a key role in the fight against NTDs. Training curriculum development and rearrangement of its learning courses to include both common and rare NTDs is the way forward is another step closer to achieving the MDGs target (5).

References

1. Errea RA, Vasquez-Rios G, Machicado JD, Gallardo MS, Cornejo M, Urquiaga JF, et al. Medical Student Knowledge of Neglected Tropical Diseases in Peru: A Cross-Sectional Study. *PLoS neglected tropical diseases*. 2015;9(11): e0004197.
2. Kline K, McCarthy JS, Pearson M, Loukas A, Hotez PJ. Neglected tropical diseases of Oceania: review of their prevalence, distribution, and opportunities for control. *PLoS neglected tropical diseases*. 2013;7(1): e1755.
3. Cameron N. *Treating and Eliminating Neglected Tropical Diseases: A Diverse Approach Modeled by Soil-Transmitted Helminth Initiatives*. ENVS 380: Global Challenges in the 21st Century; 2011.
4. Nasr NA, Al-Mekhlafi HM, Ahmed A, Roslan M, Bulgiba A. Towards an effective control programme of soil-transmitted helminth infections among Orang Asli in rural Malaysia. Part 1: Prevalence and associated key factors. *Parasites & vectors*. 2013;6(1): 27.
5. Jens Aagaard-Hansen CLC. *Neglected tropical diseases: equity and social determinants*. Erik Blas ASK (ed.) World Health Organization; 2010.