

## Appropriate Health Literacy Interventions to improve Health Outcomes

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Anchang describes health literacy as an indispensable key component of ensuring a healthy condition in individuals and communities, especially in countries with high rates of endemic disease and in settings in which resources are limited. “Appropriate health literacy interventions”, according to Anchang, are interventions which are fit for purpose and appropriate to solve the specific problems that individuals and communities face. As communities and their needs differ, health literacy interventions are outlined as “health literacy packages” which are customised for the respective (cultural) context of implementation.

Anchang criticises existing health promotion interventions for two reasons: Firstly, they oftentimes apply an “euro-centric” approach which means that they are tailored for European contexts, lacking transferability to countries in the southern hemisphere. The most important barriers in this context are differences in population literacy as well as differences in social structures, such as a strong sense of community and social relatedness in African cities and villages. Secondly, health promotion interventions typically apply a “linear” understanding of problem, intervention and effect. He describes the “linear” approach as providing a solution to a certain problem without taking into account the contextual barriers of its implementation, as well as its perceived urgency and necessity (see example with mosquito nets below). This approach mostly fails to adequately respond to the actual needs of the targeted communities and interventions turn out to be unfruitful, partly due to the low acceptance among the community. He argues that “holistic” interventions, in contrast to “linear” ones, should be the standard and contribute to people’s education, knowledge and beliefs regarding the issue at hand in order to assure a sustainable change. According to Anchang, health literacy and the processes connected to its development are also closely linked to emotional factors such as trust and sense of belonging: Trust towards the “provider” of health-related information (here: the researcher) and sense of belonging to the respective community in which health-related interventions are to be carried out.

Beside the problem of the simplistic approach in handling problems or even major health crises (i.e. HIV and malaria), he criticises the way in which these outcomes are measured. For example, WHO interventions aiming at improving vaccination status mostly apply “number of vaccinations” as a major output measure. To achieve this goal, vaccination or also the provision of medicine is oftentimes imposed in a top-down way. Proper education of the populations in question about the necessity of the intervention is oftentimes neglected. Accordingly, acceptance for and adherence to these interventions can be low, as no sense of urgency is created. Similarly, interventions fail to succeed when they don’t consider the needs and opportunities of the target population. Messages like “drink only clean water”, “keep your sanitary facilities clean” or “take care of the protein intake of your child” might be fruitless if these are no viable options. The latter might be the case when communities have no access to clean drinking water or to adequate nutrition. Instead, the options for actions of the respective communities have to be assessed and alternatives have to be provided to achieve sustainable change in health behaviour and health status. For example, communities can be educated to build, use and maintain water filters to provide themselves with clean drinking water. In a similar

vein, they might be educated to grow mushrooms or to farm fish to secure proper nutrition. Through education and empowerment, interventions should follow the target of providing people with the greatest possible number of choices, to enable sound decision-making and taking responsibility for their own health. Health literacy interventions ought to apply a bottom-up, community driven approach including interactive and participatory needs assessment and creative solution-finding.

Another example for the application of a linear – thus inefficient – approach towards health promotion are interventions aiming at malaria prevention. Malaria is regarded an “endemic”, i.e. a disease “that has always been there”, as it is the case for most African countries for the last 150 years. Despite the fact that vast sums of money are provided for malaria research and interventions, malaria is still highly prevalent in most parts of Africa. The most important output measure applied in the context of malaria prevention is oftentimes the number of provided bed nets. However, Anchang reports that the provision of bed nets does not meet the needs of communities in many cases. For example, there are cases in which bed nets were used for fishing or used as kites by the target population, as these purposes meet their requirements more. Furthermore, people from the local population expressed questions about the application of bed nets, like “what do I do if I’m having a meeting in the evening, do I wrap the bed nets around my legs?” or “how can I use the bed nets when farming, because there are a lot of mosquitoes, too!”. Additionally, there might be other factors adverse to the health of the target population, like unsanitary conditions or a lack of provision with clean water. These factors ought to be addressed, too, to sustainably achieve better health status in the target population. As these example illustrate, needs assessment is a necessary requirement of any successful intervention, but also the educations of the target population about the urgency of the measure and the application of measures.

As a consequence, Anchang advocates for the transition from (top-down) health promotion interventions to (community-based) health literacy interventions. Following Anchang, the latter strongly focuses empowering local populations by education and provision with tools to improve their own health. Health literacy in these interventions would be embedded as facilitating people to access, process and apply health-related information themselves, allowing for sustainable change. Therefore, the provision of knowledge (i.e. health information) ought to be connected with education about options of how to apply that knowledge autonomously.

For example, Anchang approached the task of improving water quality in a community. At this point, it must be emphasised that the described African communities were mostly illiterate and uneducated. Specifically, the elders of the community argued that the local river was possessed by “the devil” or a affected by a curse, which is why children tend to go blind when bathing in that river. Anchang found that the water of the river was heavily contaminated with arsenic and mercury which explained the adverse effect on people’s health. With this insight, Anchang could report to the community that the river was indeed possessed by “the devil”, in the form of a “metal devil” (arsenic and mercury). The community was provided with a means of getting rid of that “devil” by filtering the water, disposing of the arsenic and mercury. A filter system was provided, built of local material (a drum filled with layers of banana stem and sand), and the community was trained in using and maintaining the filter system. Beforehand, the community was convinced of the success of the “intervention” by demonstrating that the water was now safe to drink. This intervention was deemed a success, as acceptance for the intervention was created by interactive needs assessment and by taking seriously and responding to the local population’s perception and narrative of their problem. Another contributing factor in this case was the adoption of people’s language used for describing the problem. Accordingly, health-

related interventions should always be built on the “local health knowledge” – which might differ from what researchers consider evidence or knowledge.

Another way of providing health literacy, knowledge and capacity are Evolutionary Systems Labs (ESLabs). ESLabs are community based education and empowerment programs, in which meetings are held twice a month between members of local populations and experts in the respective field of nutrition or disease prevention. In this workshop setting, communities are encouraged to educate themselves, to discuss critically and to come up with own, creative solutions to the problems they face. Over the course of about six months, one “wave” of target population become experts on the respective field. Afterwards, these very participants are the ones educating the next “wave” of participants, enabling interactive, inter-generational learning courses. The creation of people’s sense of belonging and responsibility for the health of the whole community is considered crucial in this learning format. Anchang reported great success of this learning format, as even in children awareness was visibly raised, e.g. about topics such as sickle disease.

Health literacy interventions, Anchang argues, ought to be based on evidence. This evidence does not only encompass scientific “knowledge”, which can in some cases be biases or undergoing change, but it also encompasses the experience and perceptions of the respective target population. Evidence ought be of empirical nature. This means that theoretical models and theoretical findings are not deemed valid evidence as long as they have not been validated in practice (“50% of theories and models published in Cochrane reviews do not work in practise”). Interventions should further be comprehensive in a way that they enable target populations to secure the sustainability of change.

Anchang brings up the example of the outbreak of a disease in an area around the river “Ebola” (after which the disease was called 40 years later). This first Ebola outbreak has been regarded by the local population as a “bad spell” and it was no surprise that this very region was the one affected worst again by recent Ebola outbreaks. As this example shows, interventions must not simply target disease, but must educate populations on the causes of disease and on how to prevent them.

Literacy is regarded a major factor for the development of health literacy and for the success of health interventions. While literacy itself might not be a prerequisite of health literacy and health literate behaviour, it might still facilitate learning processes related to health. Health-related contents can be transferred verbally (i.e. without adequate literacy), but this requires interaction with a person who holds knowledge about a certain problem (e.g. a disease). Accordingly, it is possible to educate people without them being literacy. However, literacy enables the transmission of (health) information even without requiring the interaction with an expert. Accordingly, learning processes can be also initiated by non-verbal (e.g. written) pieces of information, which reduces the time an expert needs to “invest” before achieving a desired level of knowledge or awareness in a target population.

Anchang advocates for a strong link between research and practise. For example, PhD projects under Anchang’s supervision are tied to knowledge transfer in the form of a policy paper. In a similar vein, systematic reviews should always be linked to “actual” research or trainings and workshops. Similarly, practise research is necessary to verify theoretical models of health and health literacy. Lastly, Anchang endorse the SWOT analysis of interventions and questionnaires.