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# ENHANCING VETERINARY STUDENTS' CULTURAL COMPETENCE THROUGH THE ZOE PROJECT'S LINGUISTIC MOOC

Case  
Study

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## Keywords

*Multiculturalism,  
Cultural competence,  
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## Abstract

*The article is a study on enhancing veterinary students' cultural competences as achieved through the ZOE European project within a partnership of institutions and organisations from five countries, coordinated by the Ion Ionescu de la Brad University of agricultural sciences and veterinary medicine Iasi, Romania. The impact of cultural diversity on the provision of health care has created new responsibilities especially for academic institutions which are asked to prepare the future doctors, who need to be culturally competent in order to deliver quality services to their clients no matter their cultural background, religion, beliefs or language competence. The article presents some of the cultural barriers doctors face nowadays to the effective treatment and prevention of malaria and dirofilariosis, as well as case studies collected from students themselves and used as effective teaching tools in educating medical students to become culturally competent providers and practitioners.*

## INTRODUCTION

Modern medicine, be it human or veterinary, faces an unprecedented cultural diversity as a result of recent demographic shifts (refugees, immigrants, mobility). This fact challenges the efficacy of therapeutic relationships due to an influx of different beliefs and ways of communication and interaction between the main actors involved in the medical act. The impact of cultural diversity on the provision of health care has created new responsibilities especially for the academic institutions preparing the future doctors, who need to be culturally competent in order to deliver quality services to their clients no matter their cultural background, religion, beliefs or language competence. Cultural competency has become a responsibility and an integral part of the complex underlying structure of high education organizations for the benefit of students, clients, and health care institutions (Chun and Evans, 2016). One significant means of addressing culturally competent care is by creating learning environments that focus on diversity and educate and train an increasingly diverse workforce.

## THE ZOE PROJECT

The Zoe project aims at creating complex open digital educational resources, which provide veterinary, medical, pedagogical, linguistic and raise-awareness material addressing two major zoonoses, malaria and dirofilariosis. The medical and language learning experience provided by the ZOE MOOC is based on the pedagogical principles underlying any MOOC and encourages and enhances social networking, collaborative learning, peer assistance, communication and student knowledge construction, student empowerment, interculturality and the ability to control the individual learning pace and medical practice (Guàrdia, Maina and Sangrà, 2013). The MOOCs (Massive Open Online Courses) for the medical and linguistic fields have been created with a view to improving students' skills in zoonotic clinical procedures as well as their medical communication and intercultural skills (Colibaba, 2016). The linguistic medical learning material in English, Croatian, Italian, Lithuanian and Romanian converted from the medical sections is organised in a wide range of interactive learning activities aiming at informing and educating students about zoonotic diseases and the impact they can have on animals and human activities; it introduces and practices the vocabulary, grammar structures, functions, and cultural elements present in each section. (Colibaba and Colibaba, 2016).

The cultural worksheets are meant to improve students' cultural knowledge, skills and attitudes

through case studies (Catteeuw, 2012). In terms of knowledge the students should be able to define and understand the importance of cultural competence, identify and explore cultural issues that impact patients' health and wellbeing, identify health cultural differences existing within their professional context and use reflection as an important tool in their professional development (AAMC and ASPH, 2012).

As far as skills are concerned students should be able to identify their learning needs related to cultural competence; integrate cultural elements in their relationships with their clients, identify and include clients' cultural opinions and attitudes in their treatment, communicate with colleagues, clients, and communities about health cultural differences, acknowledge their own biases and the potential impact they have on the quality of health care.

As for attitudes students should be able to show interest in implementing the principles of cultural competence; make the development of a doctor's cultural competence a lifelong learning process; show open-mindedness and interest in providing culturally competent health care and service; demonstrate respect for a patient's cultural and health beliefs; explore cultural aspects that may have an impact on the relationships within their context and show willingness to solve cultural challenges within their community.

## CULTURAL BARRIERS TO THE EFFECTIVE TREATMENT AND PREVENTION OF MALARIA AND DIROFILARIOSIS

### 1. Barriers to the effective treatment and prevention of malaria

A questionnaire was carried out on 30 international students studying veterinary medicine in Iasi and coming from diverse countries in Europe, Africa and Asia. Although in many of these countries these diseases were eradicated, exploring what students know from their own or their families' experience about current and past knowledge, perceptions, and practices related to the cause, treatment, and prevention of malaria and dirofilariosis was considered to be useful for doctors.

The students involved in the questionnaire agreed that knowledge of the role of mosquitoes in malaria transmission and its cause depends on the population's education and social status. They said that general knowledge about malaria prevention measures was rich, but that it did not result in their common practice. Despite the fact that people have good knowledge of malaria transmission and its vectors, veterinarians still face misconceptions about malaria and its causes. A few respondents

stated that there are still people who do not perceive the mosquito to be responsible for malaria transmission and therefore do not take the necessary steps to protect themselves. There were respondents who reported that in some remote parts of the world there are people who think that excessive cold or heat, heavy rains, bodily contact with a malaria patient, poor food, drinking, bathing in dirty water or even supernatural causes (possession by evil spirits) are the main causes of malaria.

In terms of therapy the high majority of respondents said that people in their communities knew malaria could be treated by modern medicine although a few answers limited its treatment to the use of chloroquine considered to be the best antimalarial therapy. Traditional medicine which included use of herbs, leaves, roots, cauterization, holy water and prayers was also mentioned by a few respondents.

The belief that a sick child could die if taken to hospital was also mentioned in one of the questionnaires; nevertheless, the majority of respondents reported that nowadays taking a feverish child to hospital is a good practice observed by all families. Other reported barriers to treatment included beliefs about the use of conventional medicines and the role of traditional therapies or simply a preference for traditional remedies. Some respondents reported a combination of therapies with a prior use of traditional medicine as first line treatment followed by supportive care in hospital. In such cases traditional healing methods, including consultation with traditional healers, use of herbal remedies, bathing, and various forms of fumigation were proposed. In addition, respondents identified the practice of stopping medications once symptoms had ceased.

As far as prevention is concerned most of the respondents reported that owning bed nets is the most common protective method against malaria in practice. Nevertheless, some respondents stated that there is a perception that malaria is not dangerous probably due to the lack of knowledge about individual proneness and vulnerability to malaria infections. Adults become generally semi-immune to malaria through repeated exposure. For instance, fishermen in certain villages spend days and nights on the lake fishing and are heavily bitten by mosquitoes; they do not get malaria though. On the other hand, it is pregnant women and children who get malaria although they do not get bitten so much by mosquitoes. There is a scientific explanation why pregnant women become prone to malaria: it is because the placenta is a new niche which provides a suitable environment for parasites. As for the under-five children, they have not fully developed immunity to be selectively susceptible to malaria. Because of this knowledge

gap some respondents reported that some people do not believe that malaria is spread by mosquitoes, let alone can be prevented by ITNs (Insecticide Treated Nets). Other students wrote about other beliefs which held ITNs responsible for causing infertility or that the chemicals used to impregnate nets have dangerous effects on pregnancy and the foetus.

Knowledge about preventive measures is not always accompanied by improvement in practices. The implementation of solid educational programmes is necessary to increase the communities' efforts to develop desirable attitudes and practices regarding malaria and their participation for malaria control. Malaria beliefs and practices are embedded in the local culture and can influence the effectiveness of control strategies; thus, local knowledge and practice related to malaria is important for the implementation of appropriate and effective medical interventions.

## **2. Barriers for dog and cat owners to using preventative medicines**

The spread of dirofilariosis depends on dog and cat owners' attitudes towards their animals, veterinarians or medical treatment. It stands to reason that routine use of preventative medicines is part of responsible dog and cat ownership. However, most respondents agreed that the number of owners using preventative medicines to protect their pets is in decline. Respondents held that this depends on pet owners' and veterinarians' attitudes towards using preventative medicine products in dogs and cats, the importance they ascribe to using preventative medicines for pets or their confidence in the safety of medicines; some answers specified that pet owners' relationship with their veterinary doctor, advertisements on television about specific diseases, pet owners' own research on online opinions which they often found confusing or concern about adverse effects and uncertainty about the necessity of using preventative medicines were other barriers to be taken into consideration. The questionnaire revealed interesting facts about the role that owners' trust in their veterinarians has, as a strong motivator for using preventative medicines. Thus, when owners trust their veterinary doctors they use preventive medicine for their pets and there is little use of alternative information sources. There were also respondents who doubted pet owners' level of understanding of the necessity of preventative medicines, particularly in relation to vaccinations. Two students were of the opinion that online forums may fuel pet owner concern about the prescription of preventative medicines and suggested discussions between pet owners and veterinary doctors about the necessity, safety and efficacy of preventative medicines. Veterinary doctors may be unaware of their clients' concerns;

therefore new communication and information strategies are needed to tackle these problems. Ethnic background, gender and religious beliefs can affect a pet owner's attachment to a pet as well as the relationship between the owner and the veterinarian. Respondents agreed that graduating veterinarians should be acquainted with local cultural issues, be alerted about people's diversity in order to develop a mindset of understanding of their diverse clientele (Szűcs et al., 2012). This will help them provide the best service.

## CASE STUDIES

The cultural files created within the project present several case studies collected from Romanian and international students studying veterinary medicine in Iasi; most of them rely on students' personal or clinical experience in dealing with the project zoonoses. Requesting students to develop case studies based on personal interests and experience is an invaluable technique. Writing their own case studies motivates students to carry out independent research outside the classroom environment (Schwartz, 2017).

The case studies collected from students proved to serve as illustrations of how to integrate cultural competence in the university curriculum, which will prepare them for successful delivery of appropriate health care. Cultural competence mastered through such experiences helps to enrich student learning with practice from the real-world and enables them to examine the social and behavioural factors that influence health care. Each cultural file centres round a medical situation influenced by cultural issues and is accompanied by questions students are invited to reflect on and answer on the Forum of the MOOC. Students' answers illustrate the same situation seen from different angles. It is already common knowledge that multiculturalism results in a wide range of differences from one country or region to another, and medical students should be aware of them in order to address any significant differences professionally and in the patient's best interest.

A case study on malaria prophylaxis is presented below as well as the questions students have to answer on the Forum.

### **Malaria Prophylaxis**

The use of ITNs (Insecticide Treated Nets) is strongly linked to culturally accepted sleeping habits, in which gender plays an important role. Young children often sleep with their mother and are therefore protected by her bed net if she has one. In most cases men give priority to women when there are not enough ITNs in the house because women often sleep under the same net with their children, who are the most vulnerable. There

are also cases when, if there is only one bed net, the male head of the household will get it as he is often considered the breadwinner. In other contexts, men have very little access to ITNs as they generally sleep outside.

However, the findings show that women are more likely to use ITNs compared to men. One possible reason for higher ITN use among women over men is that they are considered to be vulnerable to malaria. Radio advertisements and television commercials always show women and children using nets, and in general, they do not include men although their messages focus on the importance of ITN use for everyone.

Another possible reason could be because women are less likely to take risks when it comes to health, are more generally health conscious and respond to health promotion messages. In contrast, men are more likely to be risk takers and at the same time more conservative in their behaviour.

Economic inequities in areas such as the control of household resources also affect access to ITNs and are an important gender issue. One student said that his grandmother complained that many women were unable to purchase an ITN for themselves and their children if their husbands did not want to buy one because they were financially dependent on their husbands. However, when women worked and had their own money, they were much more likely than men to purchase an ITN for their household.

Discussion:

Students are supposed to reflect on the following questions and post their answers on the Forum.

What about you? Do you use ITNs?

Have you ever used ITNs?

What can you tell us about your own experiences related to the use of ITNs?

### **Handling cultural differences as a veterinarian**

Handling cultural differences in delivering health care involves a complex combination of knowledge of diverse cultural practices and views, reflective self-awareness of the own cultural view, attitudes about cultural differences, and skills in cross cultural assessment and communication. Veterinary doctors need specific knowledge about the communities and their groups of people in terms of specific cultural practices regarding health care and beliefs about health and illness; cultural views; acculturation and life experiences.

Understanding one's own cultural values and beliefs as well as the culture of others is essential (European Commission, 2017). Identifying one's own values and beliefs enables each individual to reflect on them and become aware of how these issues can impact the quality of service as sometimes these personal views can get in conflict with other people's values and, as a result, hinder therapeutic relationships and effective treatment.

Respect for other cultures is fundamental. Effective cultural communication relies on respect, dignity, and the preservation of human rights. Veterinary doctors must understand clients' needs through effective listening, attentive body language, and use of eye contact. Familiarity with the cultural context is essential for veterinary doctors to provide culturally competent communication.

Education for culturally competent care comprises knowledge of the cultural values, beliefs, and healthcare practices of their clients. Increasing linguistic and cultural competences will definitely expand the doctor's understanding of their clients' cultural behaviours and environment; this will enhance the quality of the services provided by the doctor by improving communication and trust, increasing knowledge about the disease which will result in improved treatment efficacy.

In our efforts to develop our students' cultural competence a teaching cross-cultural health care framework was used: the LEARN model (Berlin and Fowkes, 1983). According to the model the students are advised to first listen to their clients so that valuable and useful information about the clients' views of the cause, process, duration and outcome of the illness will be elicited from them. In the next steps (explanation and acknowledgement) the doctor explains his/her strategy to the client whose own model will be acknowledged and taken into consideration in an attempt to bridge the conceptual gap between disparate belief systems. In the recommendation stage, a treatment plan is developed based on the client's and the doctor's explanatory models, which will include cultural elements meant to enhance the acceptability of the treatment plan. The last stage, negotiation, the key concept of the proposed LEARN model, involves the client in the instrumentation of the therapeutic process. The client will only go through the process if it fits within his/her cultural framework of healing and health.

## CONCLUSIONS

A growing multicultural society makes health care providers' cultural competence a must. In the veterinary clinical workplace, students interact with patients, clients, specialists, and other health care workers. Culture has become an important variable in the delivery of quality health care and failure to recognize its impact on health care can lead to a poor quality of health care services. The ZOE project's linguistic MOOC highlights that by becoming familiar with their diverse clients' cultural beliefs, customs, values, attitudes, views, experiences, fears and practices students can reach a deeper understanding of the communities where they work, leading to effective communication and engagement, trust and satisfaction.

The ZOE project's linguistic MOOC underlines the role that a doctor's cultural competence plays in providing quality health care services to people coming from diverse backgrounds. By defining cultural competence as knowledge, skills, attitudes, and behaviour necessary for a doctor to perform at his best in a multicultural environment, the ZOE project's linguistic MOOC points out that veterinarians as well as human doctors a solid understanding of different cultural issues is not only a must have but should also become a constant pursuit all their lives.

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