ICEHTM 2014
Istanbul / Turkey
22-24 May 2014

2nd International Conference on e-Health and Telemedicine &
International Course on Tele-Pathology Systems & Applications

Editor: Asst. Prof. Dr. Tayseer Al-Shanableh
Co-Editor: Dr. Fahme Dabaj

ISBN 978-9963-7393-1-8 Copyright ©
The questionnaire of satisfaction, optional and present online two years ago, has been compiled by 222 members. About the course content (content, clarity and completeness of information, quality of information) the 97% of users felt that they were "Perfectly appropriate or appropriate" and only 3% "not at all appropriate or inappropriate".

Similar results were obtained by analyzing the answers to questions on more technical aspects such as graphics/animation and navigation; in this case the 90% considered "Perfectly satisfied or satisfied" and 10% "not at all satisfied or dissatisfied".

The 80% who have filled out the questionnaire believed this online learning experience better than the traditional one. It was asked to assign an overall score for the course, from 1 to 10: 94% has attributed a score ≥ 6 and 68% a score ≥ 8.

CONCLUSIONS

The course, credited as Elective teaching activities at the Faculty of Medicine of Florence University, has aroused considerable interest at local and national level. The encouraging results obtained encourage us to constantly update the course in order to provide a useful tool for distance education, more and more enjoyed. New strategies to increase the number of beneficiaries in the South Italy and abroad are under evaluation. Our intention is to translate the course in English and in Russian.
Interactive distance learning course for health promotion in Belarus

Comodo N*., Santomauro F*., Sharshakova T**, Ruzanov D**, Hatalskaya H***
*University of Florence (Italy), **Medical University of Gomel (Belarus), ***Pedagogical University of Minsk (Belarus)
corresponding author: nicola.comodo@unifi.it

ABSTRACT

Many factors directly or indirectly cause disease. One of these, one of the most important, if not the most important, is the lifestyle, which in turn is correlated with economic, social and cultural status. The lifestyle, i.e. the collection of our daily behavior, also depends on knowledge that we have on the subject of health protection. In Belarus, as in other countries of Eastern Europe, from the years 90 the health situation has rapidly plummeted, due mainly to diseases for which the misbehavior is one of the major risk factors. This project proposes the use of an Interactive Distance Learning Course as a way to modernize education about health. This tool can be integrated with traditional training and at the same time reach learners who would not have had the opportunity to train on the same issues. E-learning reaches a wider target audience by engaging learners who have difficulty attending conventional classroom training. The Interactive Distance Learning Course includes a set of interactive e-lessons with a linear sequence of screens which include text, graphics, animations, audio, video and interactivity in the form of questions and feedback. The course comprises a tutoring e-service and chats, discussion forums and blogs. This is the way to obtain the most long-term advantages: even if the initial investment is not small, relevant results in terms of savings will be highlighted during time.

INTRODUCTION

The level and quality of information and health education play an important role on the health of the individuals and the community. Serious health inequalities occur in Eastern Europe than in Western countries, and are linked to many aspects of economic, social and cultural rights.

Data provided by the World Health Organization confirmed a large gap between Belarus and the Western European countries as regards of Health. A quick view of some health indicators shows alarming data: mortality from cardiovascular diseases is six times higher in males (701 vs. 156 per 100,000) and almost four times higher in females (372 vs. 102) than in Italy. The mortality from respiratory diseases in males is more than twice than in Italy (58 vs. 25), road accidents are almost two times higher (15.7 vs. 9.6). The incidence of tuberculosis is more than six times higher (49.4 vs. 7.9) than in Italy. Overall, this translates into a standardized mortality rate more than twice higher in Belarus than in Italy (904 vs. 383 per 100,000) and a life expectancy of 12 years less than Italy (70 vs. 82 years).

Data about the outcomes of treatment of multidrug-resistant tuberculosis in the fourth quarter of 2012 show that less than 40% of patients completed the prescribed treatment, and only approximately 30% of patients believed to be contagious. The low compliance with treatments is often generated by insufficient communication between patient and operators, which is in turn caused by the lack of an adequate specific training for doctors and nurses.

Recent sociological research (D. Rusanov, Davydouskaya E., 2012) shows that only 44% of the population of Belarus believes it can contribute to the maintenance of his own health, only 34% of them think that doctors should inform their patients adequately about their health condition, severity of the disease and methods of prevention.

A first development of the public health has been made possible thanks to the dynamic development of health facilities, which led to higher vocational training requirements and the increased importance of international cooperation for quality learning in medicine and other health disciplines.

METHODS AND PROCEDURES

We are preparing a project in collaboration between the University of Florence (Italy), the Pedagogical State University of Minsk and the Medical University of Gomel (Belarus), thanks to an agreement signed by the rectors of the three universities.

This project proposes the use of an Interactive Distance Learning Course as a way to modernize education about health. This tool can be integrated with traditional training and at the same time reach learners who would not have had the opportunity to train on the same issues. E-learning reaches a wider target audience by engaging learners who have difficulty attending conventional classroom training because they are:

- geographically dispersed with limited time and/or resources to travel;
- busy with work or family commitments which do not allow them to attend courses on specific dates with a fixed schedule;
- facing difficulties with real-time communication.
1. The themes of the Interactive Distance Learning Course will be the following:
   - Health determinants and tools for prevention and promotion of health
   - Behaviours and lifestyles
   - The main rules on food safety and nutrition,
   - Prevention of main chronic degenerative diseases: obesity, diabetes, cardiovascular disease, cancer
   - Prevention of main infectious diseases: tuberculosis, sexually transmitted diseases, viral hepatitis
   - Prevention of toxic-addictions: drugs, alcohol, smoking
   - Prevention of traffic accidents and violence
   - Relationship between environment and health: pollution of air, soil and water

2. The Interactive Distance Learning Course will also include:
   - A set of interactive e-lessons with a linear sequence of screens which include text, graphics, animations, audio, video and interactivity in the form of questions and feedback. Audio will be used in combination with on-screen text to summarize or expand key points or to accompany video sequences. Audio narration is more effective than printed text when providing comments on animations, video sequences or a series of static frames showing a transformation. Indeed, learners' visual channel can become overloaded if they have to process graphics and the printed words that refer to them.
   - PowerPoint presentations, videos or audio files.
   - Recommended readings and links to online resources, as well as additional information on specific topics.
   - Job aids: technical glossaries and checklists
   - Tutoring e-service to provide support during the learning experience.
   - Chats, discussion forums and blogs, for online collaboration among learners

CONCLUSIONS

The main product carried out by the project is based on the exploitation of information technology. This is a way to obtain the most long-term advantages; even if the initial investment is not small, relevant results in terms of savings will be highlighted during time.

The exploitation and dissemination strategy aims at stimulate the replication of the experiences with a very small economic investment: once the instruments are carried out, there are no limits to the number of people potentially involved. The modular nature of the e-learning course will ensure also its use in a flexible way, so to expand the potential target without any other expense.

Another aspect of sustainability is related to the modular architecture of the e-learning product; this will make the course suitable for any customization based on specific target, is not necessary to use all the subjects. Moreover, the free distribution of the digital instrument via on-line diffusion guarantee the availability of the main output for anyone who wants to use it both as learner or teacher.

We believe that our decision to collaborate among three universities to produce an Interactive Distance Learning Course is the most correct choice to reach the greatest number of people in Belarus, in order to improve the knowledge and skills in the field of health, to change lifestyle and, finally, to reduce existing inequalities of health.