МІНІСТЕРСТВО ОХОРОНИ ЗДОРОВ'Я УКРАЇНИ ДОНЕЦЬКИЙ ДЕРЖАВНИЙ МЕДИЧНИЙ УНІВЕРСИТЕТ ім.М.ГОРЬКОГО НАУКОВО-ДОСЛІДНИЙ ІНСТИТУТ ТРАВМАТОЛОГІЇ ТА ОРТОПЕДІЇ

MINISTRY OF HEALTH SERVICE OF UKRAINE DONETSK STATE MEDICAL UNIVERSITY named after M.GORKY RESEARCH AND DEVELOPMENT INSTITUTE OF TRAUMATOLOGY AND ORTHOPAEDICS

УКРАЇНСЬКИЙ ЖУРНАЛ ТЕЛЕМЕДИЦИНИ ТА МЕДИЧНОЇ ТЕЛЕМАТИКИ

WWW.TELEMED.ORG.UA

UKRAINIAN JOURNAL OF TELEMEDICINE AND MEDICAL TELEMATICS

Науково-практичний журнал Заснований у липні 2003 року

Tom 4, №2, 2006

Scientific and practical journal Founded in June 2003 year

Volume 4, №2, 2006

Редакційно-видавничий відділ Донецького державного медичного університету ім. М. Горького

Editorial and Publishing Department of Donetsk State Medical University named after M.Gorky

> Донецьк, ООО "Цифровая типография", 2006 Donets'k, ООО "Digital Typographia", 2006

Український Журнал Телемедицини та Медичної Телематики

Curatio Sine Distantia!

Том 4, №2 2006

ЗАСНОВНИКИ та ВИДАВЦІ ЖУРНАЛУ:

Донецький державний медичний університет ім.М.Горького, Науково-дослідний інститут травматології та ортопедії

<u>АДРЕСА ВИДАВЦІВ та</u> РЕДАКЦІЇ:

вул. Артема, 106, 83048 Донецьк, Україна <u>Телефон:</u> 0038-062-335-14-61 <u>E-mail:</u> avv@telemed.org.ua <u>WWW:</u>http://www.telemed. org.ua

МЕДІА-ПАРТНЕР:

Асоціація розвитку української телемедицини та електронної охорони здоров'я http://www.telemed.org.ua International Society for Telemedicine and eHealth http://www.isft.net "Med-E-Tel" http://www.medetel.lu

ДРУК:

друкарня ООО "Цифровая типография". Адреса: Донецьк-14, вул.Р.Люксембург, 60в Тел.: (062)-381-15-22. Здано до набору 10.10.2006. Підписано до друку 20.10. 2006. Тираж 300 прим., 2 номери на рік. Формат 60х84 1/8. Обсяг умовн.друк.арк.10,0. Друк лазерний.

Відповідальність за добір та викладення фактів у статтях і рекладення фактів у статтях і рекламних матеріалах несуть автори. Редакція не завжди поділяє думки авторів Передрук статей можливий тільки за письмової згоди редакції

Підписний індекс - 96071

Повнотекстова версія журналу доступна в Інтернеті за адресою: http://www.telemed.org.ua

ISSN 1728-936X

РЕДАКЦІЙНА КОЛЕГІЯ

Головний редактор: В.М.КАЗАКОВ
Заступник головного редактора:А.В.ВЛАДЗИМИРСЬКИЙ
Відповідальний секретар: Д.К.КАЛІНОВСЬКИЙ
Е.Ф.БАРИНОВ, О.І.ГЕРАСИМЕНКО, В.К.ГРІНЬ, В.І.ДОНСЬКОЙ,
О.Т.ДОРОХОВА, Ю.В.ДУМАНСЬКИЙ, Г.А.ІГНАТЕНКО, М.JORDANOVA,
В.Г.КЛИМОВИЦЬКИЙ, R.LATIFI, Г.В.ЛОБАНОВ, Ю.Є.ЛЯХ, І.М.МАТРОСТАРАНЕЦЬ, В.П.МАРЦЕНЮК, О.П.МІНЦЕР, М.NERLICH, Ю.Д.ПОПОВ,
А.К.РУШАЙ, P.SOGNER, В.Л.СТОЛЯР, В.Я.УМАНСЬКИЙ,
В.С.ХАРЧЕНКО, В.К.ЧАЙКА, В.І.ЧЕРНІЙ, В.П.ЯЦЕНКО

РЕДАКЦІЙНА РАДА

О.В.АНІШЕНКО R.MERRELL Донецьк, Україна Річмонд. США О.Ю.АТЬКОВ M.MOLEFI Москва, Росія Преторія, ПАР K.BRAUCHLI С.П.МИРОНОВ Базель, Швейцарія Москва, Росія О.Д.ДМИТРІЄНКО А.В.ОТОЧКІН Санкт-Петербург, Росія Санкт-Петербург, Росія P.S.JOHN О.С.ПРИВАЛОВА Керала, Індія Київ, Україна Б.А.КОБРИНСЬКИЙ О.Б.ПЕТРЯЄВА Москва, Росія Донецьк, Україна М.В.КОНОНОВ Ю.А.ПРОКОПЧУК Київ, Україна Дніпропетровськ, Україна І.В.КУЦЕНКО A. PAUNKSNIS Каунас, Литва Донецьк, Україна B.PYKE Jr. D.M.LAM Еверберг, Бельгія Кайога Фолс. США О.Г.ЛЄСНІЧОВ В.І.РУДИЦЯ Київ, Україна Барнаул, Росія В.Ф.ФЕДОРОВ В.М.ЛОБАС Донецьк. Україна Москва. Росія В.Ю.ХУДОБІН О.Ю.МАЙОРОВ Харків, Україна Донецьк, Україна **I.MALMROS** О.М.ЧЕЛНОКОВ Єкатеринбург, Росія Візбі, Швеція S.MANANKOVA BYE М.М.ЩУДЛО Трьомсо, Норвегія Курган, Росія

Свідоцтво про державну реєстрацію серія ДЦ № 2016 від 31.07.2003 видано Управлінням у справах преси та інформації Донецької облдержадміністрації

"Український журнал телемедицини та медичної телематики" входить до переліку фахових наукових видань вищої атестаційної комісії, в яких можуть публікуватися основні результати дисертаційних робіт

(постанова Президії ВАК України від 04.07.2006. № 1-05/7)
Рекомендовано до видання Вченою радою Донецького державного медичного університету ім.М.Горького 19.12.2003 року, протокол №8

UKRAINIAN JOURNAL OF TELEMEDICINE AND MEDICAL TELEMATICS

Curatio Sine Distantia!

Volume 4, №2 2006

JOURNAL'S FOUNDERS and PUBLISHERS:

Donetsk State Medical University named after M.Gorky, R&D Institute of Traumatology and Orthopaedics

EDITORIAL'S and FOUNDER'S ADDRESS:

Artyoma str, 106, 83048 Donetsk, Ukraine Phone: 0038-062-335-14-61 E-mail: avv@telemed.org.ua WWW:http://www.telemed.org.ua

MEDIA-PARTNER:

Association for Ukrainian Telemedicine and eHealth Development

http://www.telemed.org.ua International Society for Telemedicine and eHealth http://www.isft.net "Med-E-Tel" http://www.medetel.lu

PRINT:

Printing house "OOO Digital Typography". Address: Donets'k-14, R.Luxemburg str.60b. Phone: (062)-381-15-22. Send to print: 10.10.2006. Printed: 20.10.2006. Laser print. Format 60x84 1/8. Volume in conditional indexes 10,0. Circulation: 300 copies. 2 issues per year

The responsibility for correctness of the facts in the articles and promotional materials is carried by the authors

The Editorial Board not always divides opinion of the authors.

The reprint of the articles is possible only after the written sanction of the Editorial Board

Full-text on-line is aviable in Internet by: http://www.telemed.org.ua

ISSN 1728-936X

EDITORIAL BOARD:

Editor: V.N.KAZAKOV

Deputy Editor: A.V.VLADZYMYRSKYY
Responsible Secretary: D.K.KALYNOVSKYY
E.F.BARINOV, A.I.GERASIMENKO, V.K.GRIN, V.I.DONSKYY,
E.T.DOROKHOVA, YU.V.DUMANSKYY, G.A.IGNATENKO,
M.JORDANOVA, V.G.KLYMOVYTSKYY, R.LATIFI, G.V.LOBANOV,
YU.E.LYAKH, I.N.MATROS-TARANETS, V.P.MARTSENYUK,
O.P.MINTSER, M.NERLICH, YU.D.POPOV, A.K.RUSHAY, P.SOGNER,
V.L.STOLYAR, V.JA.UMANSKYY, V.S.KHARCHENKO, V.K.CHAJKA,
V.I.CHERNYY, V.P.YATSENKO

EDITORIAL ADVISERS

O.V.ANISHENKO R.MERRELL Donetsk, Ukraine Richmond, USA O.YU.ATKOV M.MOLEFI Moscow, Russia Pretoria, South Africa K.BRAUCHLI S.P.MIRONOV Basel. Switzerland Moscow, Russia A.V.OTOCHKYN O.D.DMITRIENKO Sankt-Petersburg, Russia Sankt-Petersburg, Russia P.S.JOHN O.S.PRIVALOVA Kerala, India Kiev, Ukraine **B.A.KOBRINSKIY** O.B.PETRYAEVA Moscow, Russia Donetsk, Ukraine M.V.KONONOV YU.A.PROKOPCHUK Dnipropetrivsk, Ukraine Kiev, Ukraine I.V.KUTSENKO A. PAUNKSNIS Donetsk. Ukraine Kaunas. Lithuania B.PYKE Jr. D.M.LAM Everberg, Belgium Cuyahoga Falls, USA A.G.LESNICHEV **V.I.RUDITSA** Barnaul, Russia Kiev, Ukraine V.F.FEDOROV V.M.LOBAS Donetsk, Ukraine Moscow, Russia O.YU.MAYUOROV V.YU.KHUDOBIN Kharkiv, Ukraine Donetsk, Ukraine **I.MALMROS** A.N.CHELNOKOV Visby, Sweden Ekaterinburg, Russia S.MANANKOVA BYE M.M.SHUDLO Tromse, Norway Kurgan, Russia

The certificate about state registration ДЦ № 2016 is given on 31.07.2003 by Department of Press and Information of Donetsk Regional State Administration

"Ukrainian Journal of Telemedicine and Medical Telematics" had been included in the list of scientific editions of Senior Certification Comission, in which it is possible to publish results of scientific dissertation researches (resolution of Presidia of SCC of Ukraine 04.07.2006. № 1-05/7)

Recommended by the Scientific Council of Donetsk State Medical University named after M.Gorky 19.12.2003 year, protocol №8

УДК 61671-001.5+61:621.397.13+61:621.398+61:681.3



Community nursing: E-learning project of **Visegrad Group's countries**

L.Niebrój, S.Bartlova*

Department of Philosophy and Ethics, Medical University of Silesia, Katowice, Poland, *National Centre of Nursing and Other Health Professions, Brno, Czech Republic

PE3IOME, ABSTRACT

Analyses undertaken in this article show clearly that also situation in community nursing (both in its practice as well as in the education, which prepares for this practice) is approximately at the same level in all Visegrad countries. The cooperation within Visegrad Group in the filed of nursing, and in particular in the community nursing, seems to be of great importance. Four educational/medical centers have agreed to collaborate in preparing e-learning program of post-graduate education which aims to prepare nurses specialized in community care. The program received positive evaluation from "Leonardo da Vinci" Program. This article describes preliminary steps related to design of the elearning program (Ukr. z. telemed. med. telemat.-2006.-Vol.4,№2.-P.186-190).

Keywords: e-learning, community nursing, Visegrad Group

L.Niebrój, S.Bartlova*

АМБУЛАТОРНЕ СЕСТРИНСТВО: ПРОЕКТ ЕЛЕКТРОННОГО НАВЧАННЯ КРАЇН ВИШЕГРАДСЬКОЇ ГРУПИ

Department of Philosophy and Ethics, Medical University of Silesia, Katowice, Poland, *National Centre of Nursing and Other Health Professions, Brno, Czech Republic

Проведений у статті аналіз показує, що ситуація з амбулаторною сестриною допомогою (включаючи і практичну діяльність, і навчання) приблизно однакова у всіх країнах Вишеградської групи. Дуже важливим є співробітництво у Вишеградській групі в сфері сестринства, і зокрема амбулаторного. Чотири медичних центри і навчальні заклади уклали договір про спільну розробку електронних програм для післядипломного навчання (підготовки медичних сестер для амбулаторної діяльності). Розробка одержала позитивну оцінку від програми "Leonardo da Vinci". Дана стаття описує попередні кроки по створенню електронних навчальних ресурсів (Укр.ж.телемед.мед.телемат.-2006.-Т.4,№2.-С. 186-190).

Ключові слова: електронне навчання, Вишеградська група

L.Niebrój, S.Bartlova*

СЕСТРИНСТВО: ПРОЕКТ **АМБУЛАТОРНОЕ** ЭЛЕКТРОННОГО ОБУЧЕНИЯ CTPAH ВЫШЕГРАДСКОЙ ГРУППЫ

Department of Philosophy and Ethics, Medical University of Silesia, Katowice, Poland, *National Centre of Nursing and Other Health Professions, Brno, Czech Republic

Проведенный в статье анализ показывает, что ситуация с амбулаторной сестринской помощью (включая и практическую деятельность, и обучение) примерно одинакова во всех странах Вышеградской группы. Очень важным является сотрудничество в Вышеградской группе в сфере сестринства, и в частности – амбулаторного. Четыре медицинских центра и учебных заведения заключили договор о совместной разработке электронных программ для последипломного обучения (подготовки медицинских сестер для амбулаторной деятельности). Разработка получила положительную оценку от программы "Leonardo da Vinci". Данная статья опиэлектронных учебных предварительные шаги по созданию ресурсов (Укр.ж.телемед.мед.телемат.-2006.-Т.4,№2.-С. 186-190).

Ключевые слова: электронное обучение, Вышеградская группа

http://www.telemed.org.ua/UJTMMT/N2_06/article12.html

prices of the essential elements of hard- related to Internet connection seem to be

Advances in information and communi- ware, in particular personal computers cation technologies (ICTs), decrease in (PC), and significant dropping of the costs the most important reasons why the contemporary, more and more global society could and should be described as an 'informatics' one. It is not surprising that ICTs, which are changing the entire way people live, have also very profound influence on the learning/teaching processes. Just in the first years of the New Millennium it was estimated that about 85-90% of universities used ICTs for learning purposes [1].

Different terms are in use to describe learning which employs ICTs (for example: "Computer-Assisted Learning", "Computer-Aided Instruction" or "Computer-Based Learning") [2]. These terms tend to express how technology is used in education. For instance, probably the most recently introduced term "m-learning" (mobile learning) intends to describe that the program of learning employs wearable computers [2]. In this article "e-learning" is used as the term which seems to be the most general one to encompass any use of ICTs for learning/teaching purposes.

The literature review proves that elearning is being used worldwide to teach nursing. This way of learning is found appropriate both for countries where the infrastructure of ICTs is highly developed (USA or UK) [3,4], and for places where the Internet is – in fact – the only way to communicate between people living in the remote regions with university centers [5].

According to the literature review, elearning is used in the under- as well as post-graduate nursing education [6,7,8]. Elearning courses deal with different, specific fields of nursing practice, for example: nursing in infection diseases [5], intravenous therapy [9], nursing in critical care [10], care of the elderly people [11] or palliative care [12].

Numerous articles, which aim to evaluate e-learning process in nursing education, assess this method as prominent, effective and opening new horizons of learning/teaching processes [8,10,13]. It does not mean, however, that e-learning has exclusively advantages. Certainly, some disadvantages also occur. For effective e-learning it is probably necessary that students should be first familiarized with both

hard- and software used in courses [8]. Preparation of appropriate e-learning materials requires a large amount of time. It is estimated that preparation of one hour's content of e-learning program 'costs' 30-200 hours of development time for an experienced team, and even 500-1000 hours for an inexperienced one [2]. But, what seems to be the most important, and what is sometimes forgotten, neither hardware nor software, even highly sophisticated, can replace 'underware' — the pedagogy employed in e-learning courses [2].

The aim of this article is to describe the preliminary steps which have been undertaken to design the e-learning program in community nursing.

Visegrad Group: economy, health and education

The first step in creating the e-learning in community nurse program was to indicate an appropriate target of potential students. It has taken into account the general rule: the bigger target, the cheaper educational cost per capita. It promotes multicenters collaboration, including an international collaboration. On the other hand, however, it is important that materials of the course would be appropriate for the circumstances in which nurses would work. International collaboration could exist only when in all the partner countries condition related to practice of community nursing are similar enough.

The so called Visegrad Group (VG), which had been constituted before European Union enlargement from May 1st, 2004, covers the Czech Republic, Hungary, Poland and the Slovak Republic. The existence of this Group finds its reason in the similarities between the above indicated countries taking into account their economical situation as well as their historical pattern (especially in the relation to the second half of 20th century).

All the four countries of the VG, are substantially poorer than West-European countries (EU members before May 1st, 2004). It should be emphasized, that there are also inequalities among the four countries of VG: the Czech Republic and Hungary are relatively richer than Poland and

Slovakia. In Poland, as in Slovakia, unemployment rate is twice as high as that in the Czech Republic and Hungary. On the other hand, financial situation in Poland (and in the Czech Republic), taking into account the rate of inflation, seems to be better than

that in the other countries of VG. However, these inequalities between the four countries are not so profound as those which still divide Europe into two parts: West and East (tab.1).

Table 1. Visegrad Group: economy (Source: WHO European Health for All Database (HFA-DB) [14])

Year	2000	2001	2002	2003			
Gross national product US \$ per capita							
Czech Republic	5250	5260	5490	6740			
Hungary	4660	4780	5240	6330			
Poland	4400	4570	4670	5270			
Slovakia	3860	3830	4050	4920			
Gross domestic product US \$ per capita							
Czech Republic	5006	5554	6808				
Hungary	4564	5097	6481				
Poland	4074	4561	4894				
Slovakia	3655	3786	4403				
Unemployment rate							
Czech Republic	8,8	8,1	7,3	7,8			
Hungary	6,4	5,7	5,8	8,4			
Poland	15,1	17,4	18,1				
Slovakia	18,3	18,3	17,8	15,2			
Annual average rate of inflation in %							
Czech Republic	3,9	4,7	1,8	0,1			
Hungary	9,8	9,2	5,3	4,7			
Poland	10,1	5,5	1,9	0,8			
Slovakia	12,0	6,5	3,4	8,6			

Table 2. Visegrad Group: health (Source: WHO European Health for All Database (HFA-DB) [14])

rable 2. Visegrad Group: nealth (Source: WHO European Health for All Database (HFA-DB) [14])							
Year	2000	2001	2002	2003			
UNDP Human Development Index (HDI)							
Czech Republic	0,856	0,861	0,868				
Hungary	0,837	0,837	0,848				
Poland	0,843	0,841	0,850				
Slovakia	0,835	0,836	0,842				
Life expectancy at birth, in years							
Czech Republic	75,21	75,43	75,51	75,40			
Hungary	71,93	72,56	72,64	72,59			
Poland	73,95	74,37	74,65				
Slovakia	73,45	73,82	73,91				
Neonatal death per 1000 live births							
Czech Republic	2,54	2,34	2,71	2,36			
Hungary		5,31	5,24	4,74			
Poland	5,59		5,34				
Slovakia	5,39	4,13	4,68				
Probability of dying before age 5 years per 1000 live births							
Czech Republic	5,19	4,99	5,27	4,88			
Hungary	10,79	9,37	8,60	8,53			
Poland	9,35	8,91	8,74				
Slovakia	10,12	7,98	8,99				

Economical situation of the certain country is strictly related with this country population health. Jose LF Antunes [15] clearly shows how economical inequalities induce inequalities in health status of different region of Eurasia. Similar economical

situation in VG countries permits to rationally presume that the health situation of citizens of all these four countries is also similar. Although the Czech Republic ought to be indicated as a leader among VG countries, in all the four countries health situa-

tion of population is worse than in West European countries. For instance, Human Development Index (HDI) in VG in 2002 varied from 0,842 (Slovakia) to 0,868 (Czech Republic). In this same year, all the countries, excluding Portugal, which were members of EU at that time, had HDI higher than 0,900. In 2002, life expectancy at birth, expressed in years, was 79,06 years in EU, while about 74 years in VG (form 72,64 in Hungary to 75,51 in the Czech Republic).

The third reason why to collaborate within VG, was the fact that all these countries are heading towards educational and legal standards of EU. So there would be no essential problems in implementation of an e-learning program in educational system of VG countries. Four partners agreed

to take part in the project: National Centre of Nursing and Other Health Profession (Czech Republic) – promoter of the project; The Institute for Basic and Continuing Education of Health Workers (Hungary); Medical University of Silesia (Poland) and Constantine the Philosopher University in Nitra (Slovak Republic). The program received positive evaluation from "Leonardo da Vinci" Program.

The goal of this project is to develop the specialization education in community care using the modular system and to prepare the individual modules for e-learning form of study, so that we might be prepared to educate the non-medical health care professionals in the most efficient way.

Conclusion

Although the partners of this project are aware of some disadvantages of e-learning, for instance: the dependence on technology, high initial costs (purchase of technology, training of the tutors, authors of the texts, etc.), we are convinced of great advantages of this form of study, e.g.:

- flexibility the possibility to combine a large number of modules
- possibility to involve a large number of students without consequent remarkable increasing of costs
- accessibility the participants can work almost anywhere and whenever
- altogether lower costs of the study (travel expenses, printed materials, necessity to take leave, etc.)
- topicality very easy change of the contents of the texts or other materials

- easier administration large part of the paperwork is done automatically
- supporting of the knowledge of information technologies

This educational project should be based on the idea that real integration of an ill or handicapped individual can be achieved by his/her own strength and self-help and only in an extreme case through utilization of professional services. Therefore it is necessary to create a supportive environment in the community in which an individual gets support in his/her life from:

- the individual him/herself
- friends and family
- usual organizations and services in the community, region (i.e., community agencies, clubs, etc.).

References and webliography

- 1. Tips to increase success for teaching online: communication, CIN Plus 2002; 5(1):1.3-6
- 2. Adams AM. Pedagogical underpinnings of computer-based learning, J Adv Nurs 2004; 46(1):5-12
- 3. *Jeffries PR*. development and testing of a Hyperlearning Model for design of an online critical care course, J Nurs Educ 2005; 44(8):366-372
- 4. Cooper H., Spencer-Dawe E., McLean E. Beginning the process of teamwork: design, implementation and
- evaluation of an inter-professional education intervention for first year undergraduate students, J Interprof Care 2005; 19(5):492-508
- 5. Dawson A., Jof BM. Seeing, thinking and acting against malaria a new approach to health worker training in rural Gambia, Educ Health (Abingdon) 2005; 18(3):387-394
- 6. Davies K., Deeny P., Raikkonen M. A transcultural ethos underpinning curriculum development: a master's

- programme in disaster relief nursing, J transcult Nurs 2003; 14(4):349-357
- 7. Stevenson M., Ibe J. Devising an e-learning package for vital-signs monitoring, Nurs Time 2003; 99(26):28-30
- 8. Wilkinson A., Forbes A., Bloomfield J., Fincham GC. An exploration of four web-based and flexible learning modules in post registration nurse education, Int J Nurs Stud 2004; 41(4):411-424
- 9. *Dias DC.*, *Cassini SH*. Educacao sem distancias: utilizacao do WebCT como ferramenta de apolo para o ensino da terapia intravenosa na graduacao em enfermagem. Rev Bras Enferm 2003; 56(4):443-446
- 10. *Jackson K., King KJ.* Successfully integrating elearning with critical care nursing education, Crit Care Nurse 2005; Suppl 36

- 11. *Juntunen A.*, *Heikkinen E.* Lessons from interprofessional e-learning: piloting a care of the elderly module, J Interprof Care 2004; 18(3):269-278
- 12. *Mateling A*. Entwicklung und Erprobung eines Elearning-Moduls "Palliative Care": Neue Lehr- und Lernpotenziale entdecken, Pflege Z 2004 57(12):896
- 13. Longman S., Gabriel M. Staff perceptions of elearning, Can Nurse 2004; 100(1):23-27
- 14. WHO European Health for All Database (HFA-DB) available at: http://data.euro.who.int/hfadb. Last check 08.01.06.
- 15. Antunes JLF. Unemployment and health status in Europe [in:] Niebrój L., Kosińska M., (eds.), Unemployment and Health Care, Katowice: Wyd. SAM 2004, p. 23-29.