The first All-Wales nursing teleconference.

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Summary: A report of how professional development and networking was facilitated by communications technology. The conference debated the role and future of the specialist nurse. Seven host organisations were linked. The preparations, technology and conference content are described together with a summary of the participants' views of the day and some lessons for the future.

Keywords: teleconferencing, nursing specialist, video

This conference brought together two major issues in nursing today. One was the need to provide continuing education and the opportunity for professional development and networking for nurses in all practice settings. The second was the role of the specialist nurse in the NHS.

The TEAM project had been using the latest desk-top video conferencing technology to provide nurses in primary care, scattered over a very rural area, with continuing education and the opportunity to meet with colleagues around the area without leaving their base. In one lunchtime session, three specialist nurses from the local NHS Trust were invited to discuss their role and the service they provide with community and practice nurses from all around Montgomeryshire, using the video conferencing equipment. This proved very successful, giving the nurses direct access to the knowledge of specialists without anyone having to leave their base. It also gave the specialist nurses insight into the needs of the primary care team. The specialist nurses were greatly impressed with how the technology allowed the primary care nurses to ‘network’ with relative ease, and discussed how they could make use of the technology themselves. Specialist nurses by their very nature tend to have fewer peers to relate to than general nurses. In a rural area like north and mid-Wales this is compounded by working across wide geographical areas, with poor communications.

The CHI and the members of the TEAM project offered their expertise to the specialist nurses in Ceredigion and Mid Wales NHS Trust, who decided to stage an All - Wales Specialist Nurses conference using the desk top video conferencing technology already in place around Wales. Ten centres were identified, and it was thought that six to ten nurses at each site would wish to take part in such a conference. A conference theme and speakers were identified and preparations began.
It was understood that this enterprise was adventurous, breaking new ground in both the use of the technology and in raising the debate on the future of specialist nursing. What was not expected at the outset, was the level of interest that the conference provoked. A tiny acorn of an idea grew rapidly into a massive oak.

**Preparations**

The aim of the conference was to provoke constructive debate on the role and the future of the specialist nurse. Speakers who were respected in the profession, but with different views of the topic were invited to take part. It was intended that the nurses in the audience should have the opportunity to participate. Sites around Wales were chosen, bearing in mind where the technology was available, and to enable nurses from every part of Wales to have the easiest possible access to the sites. The conference made use of equipment from the TEAM project and equipment belonging to the Departments of Public Health Medicine.

British Telecom (BT) were most generous in making lines and the bridge connection available. Mr Ken Pile, Telemedicine Manager at BT, was very helpful with all the necessary organisation. Seven sites were eventually selected (see figure 1).

![Figure 1. The location and communication structure for the conference](image)

It became clear that in organising a teleconference all the arrangements for a conventional conference have to be multiplied by the number of sites. This meant liaison with seven different host organisations, seven maps and instructions for participants and seven different arrangements for tea.

**Technology**

The requirement was to provide both video and audio communications between the seven sites so that there could be discussion between the speakers and the participants. All the sites were connected by ISDN2 lines which allow the transfer of sound, image and data. One to one calls can be made in the same way as with an
ordinary telephone, but connecting a number of sites simultaneously required the use of BT's Multipoint Conferencing Unit (MCU) or 'bridge'.

The desk top equipment at each site included a Pentium PC with a BT VC8000, CoCo card, camera and audio handset, and IBM Screen Call version 1.5a software. Because the numbers attending the conference were larger than originally anticipated the audio and video facilities had to be enhanced for some of the sites. For this, echo cancellation units, amplified speakers and Panasonic television sets were used. All the equipment conformed to the European standards for desk top video conferencing (G.728 for audio, and H320 for video), there was no difficulty in linking the various pieces of equipment and software.

The MCU time was booked with London. All the lines and computer equipment were tested on the day before the conference by the CHI technical staff. The connections between the sites were managed by the BT operator and engineers.

On the day, someone from CHI was present at each site to deal with any equipment or software problems. Each person attending the conference was sent 'Teleconferencing Etiquette' to explain how the conference would run and how it would differ from a conventional meeting. The system is voice-activated, it shows a picture of whoever is speaking at the time. In order to prevent the possible chaos, if everyone tried to speak at once, each site also had its own chairperson to speak for the group during the formal parts of the conference and to choreograph the questions during the discussion.

The conference

The conference was not widely advertised, as it was expected to have a limited interest, but the response was overwhelming. Decisions had to be taken about how many people could reasonably participate. The original intention had been to test the use of relatively inexpensive desk top technology which could be in the nurses' workplace, rather than full video conferencing facilities in major centres. However, it was clear that the topic was of importance to the profession. It was decided to accommodate as many people as possible. Larger rooms and screens were found for some sites, and BT generously made available their conference suite in the Cardiff International Arena. Even then, some people had to be turned away.

The conference finally went ahead with 110 delegates around seven sites: Cardiff, Wrexham, Pontypool, Aberystwyth, Carmarthen, Swansea and Bronllys. It was chaired from Cardiff by Beryl Melvin, Deputy Chief Nursing Officer for Wales, and facilitated by Carol Jarrett in Bronllys.

Anne Ryall-Davies from the Welsh National Board and Anita Davies from the RCN spoke in Cardiff, and George Castledine, from the University of Central England, spoke from Wrexham. Each of the speakers presented their personal views of the role and future for specialist nurses, and did not necessarily represent the views of their respective organisations.
Specialism

Arm Ryall-Davies spoke on 'Specialism, specialists and specialities'. She took the view that nursing itself is a specialist practice and must be valued whatever name is used. She reminded the audience that ‘specialist’ refers not to the area in which a practitioner works, but to the level at which he /she practises, as defined in the UKCC Post Registration, Education and Practice document. She suggested that the decrease in junior doctors' hours is leading to an increase in specialisation in nursing, and asked whether this specialisation might be leading to the adoption of a medical model within the nursing profession. Ms Ryall-Davies quoted Florence Nightingale; "To stand still is to go back. " and said that there is a need for nurses to develop specialist care, but from a broader perspective.

She described how some nursing specialisms contributed to routine nursing care, but warned that there was a danger that nursing could fragment itself out of existence. Appropriate care must be tailored to patients' needs, but holistic care is still of prime importance, she said.

Specialist nurses

Anita Davies spoke on the future of specialist nurses, who she said use higher degrees of decision making than general nurses, with resultant improvements in care. Ms Davies believed that specialist nurses could advance practice using academic research to push forward the boundaries of care. She quoted a report from Manchester University Health Service Management Unit, which suggested that the future of patient care may lie with NVQ generic workers, and that the role of the specialist nurse will therefore be even more important than it has been hitherto.

Benefits

George Castledine discussed the benefits of specialist nurses. First he referred to recent research conducted in England that demonstrated specialist nurses have higher levels of knowledge and skill, and provide improved patient, care and a regular source of expert advice for all health professionals and patients. Professor Castledine believed that the role of the specialist nurse is very wide, with teaching and management components, but should be mainly clinical, focusing on giving direct care. He suggested that there could be dangers in over specialisation, through de-skilling general nurses and junior doctors, but thought this could be overcome through good communication. With the flattened hierarchies which now exist in nursing, specialist nurses can develop career pathways and research foci, which will further nurse led care within the health service.

Professor Castledine commented on the rise in specialist nurses. In 1980 there were 238 specialist nurses in England and Wales, and in 1996 there are 5,000 in England alone. He suggested that their future lay in chronic disease management and in primary health care.
Time was then taken 'off line' for nurses at each site to formulate questions for debate. The discussion was unfortunately curtailed because of the time it had taken to get all sites linked up at the beginning of the conference.

**Discussion**

A number of significant points arose during the debate. The speakers were asked how to prevent de-skilling of both specialist nurses and general nurses. They suggested that the specialist nurse should not take over the care of the patient, but should be able to communicate and pass on skills and knowledge to the general nurses. It was thought that the specialist nurses should keep a broad base and be sharing commonalities with their colleagues, and so should not become de-skilled themselves.

The question of which model should specialist nurses be following if it is not to be a medical model, was raised. One of the speakers answered simply; 'Nursing', and it was thought that whichever nursing model most appropriate to the specially could be used.

The possibility of another title for specialist nurses was discussed, but the audience was again reminded that specialist nurses are first and foremost nurses, and that the skills of nursing are an essential element of specialist practice. It was suggested that it was failure on the part of general nurses to build on the knowledge which they have, which has led to the development of the specialist nurse.

Ann Ryall-Davies was asked if the Welsh National Board would support the training of specialist nurses, and she said that the educational framework allows for this and noted the part-time degree courses which offer opportunities for specialist nurses. The question of funding in the market led NHS was debated. The speakers thought that specialist nurses must let General Practitioners know what skills they have, and what services they are able to offer. In some respects the discussion was the most frustrating part of the whole conference, as it was clear that everyone wanted to have their say, and the debate could have run on well into the evening.

**Conference advantages**

Educational time for nurses is very precious, and the use of the video-telephony greatly reduced the time these senior nurses and managers spent travelling. Travelling time from anywhere in Wales outside the south, would have meant many participants taking a whole day from their workplace for a half day event. We estimated that travel to Cardiff for all the participants would have cost the NHS about £2,150, based on a minimal 22p a mile travelling allowance. Room hire should not normally be a cost, once nurses and other health professionals have this equipment in their work place, if not literally on their desk. Recovery of capital costs would also need to be taken into account in a full economic evaluation. British Telecom very generously sponsored this event, but the cost of using the ISDN telephone lines would need to be calculated for any similar meeting.
Participants’ evaluation

All the participants were asked to complete an evaluation form, assessing the relevance of the topic, the speakers, the venues and the technology. The topic was thought to be relevant, and the speakers' contributions were appreciated, although a number of respondents took the opportunity of the evaluation form to continue the debate. Some participants thought that the problems with the technology had detracted from the afternoon, others were very encouraging and saw it as a way forward for nurse education. From the responses it was clear that some people had not appreciated the difference between the teleconferencing technology, which is already in use in many major academic centres, and the PC based video-telephony equipment (PCVT) being used here.

The video and audio quality is related to the specification of the equipment. Full conferencing equipment uses, for example ISDN 6 (384 Kbytes) and thus a frame rate of 30 frames per second can be achieved, whereas the PC based conferencing equipment used ISDN 2 (128Kbytes) and a frame rate of between 7-14 frames per second. Thus PC based equipment cannot provide the audio and video quality one has come to expect from tele-conferencing units using broad band solutions. It is designed for use by single users linked one to one, or one to many, and was being used on this occasion beyond the limits of its specification. However, the PC based equipment provided the same audio, video and data exchange functionality at a fraction of the price of full teleconferencing suites. Also it can easily be used by individual nurses.

Lessons for the future

In any similar session, it would be important to ensure that all participants understood the nature of the equipment being used, and the sound and picture quality to be expected. Although the experimental nature of this conference was repeatedly stressed, it was clear that not everyone had understood this, and this may have detracted from the usefulness of the session for them. More awareness of the range of the camera in relation to the size and positioning of the audience is needed. Some members of the audience put themselves outside the range of the camera, apparently instinctively, despite the best efforts of the organisers. Presumably the tele-equivalent of sitting in the back row.

Speakers need to learn slightly different skills from a conventional presentation, especially an awareness of the image seen by the remote audience. There is need for strong chairmanship at each site throughout a conference such as this, certainly until everyone becomes familiar with the equipment. Now European standards for data for multipoint file transfer (T.120) have been agreed, additional documentation could be transmitted to each site during the conference. When this function becomes available printers will be needed in addition to the other equipment.

This first All-Wales Specialist Nurses conference posed considerable technical and organisational challenges to the organisers. The speakers both supported and challenged the role of the specialist nurse. Many lessons were learned and we gained
ideas for the future. Above all, it was a stimulating and enjoyable experience.

**Glossary**

CHI Abb. Centre for Health Informatics
TEAM Abb. Tele Education and Medicine project
ISDN Abb. Integrated Digital Services Digital network. A special line for the transmission of speech and data with the simplicity of the current telephone dialling system.
K Abb. Kilo = 1 000 (one thousand).
M Abb. Mega = 1 000 000 (one million).
PC Abb. The IBM Personal Computer and compatibles (e.g. XT, AT, 286, 386). The industry standard desktop computer. Not to be confused with the generic term ‘pc’ applied to all desktop computers.
PCVT Abb. Personal Computer Video Telephony. See PC above.
NVQ Abb. National Vocational Qualification.