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Communciation Channels to Help Build an International Community of Education and Practice

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Two-way communication is required if nurses are to build knowledge networks of international communities of nursing education and practice. Are expensive new technologies feasible or preferred for effective communication and productive outcomes? In this report from a longstanding partnership between schools of nursing at Peking University and the University of Michigan, case study methodology is used to evaluate more than a decade of experience with communication modalities: in person, postal mail, express mail, e-mail, fax, telephone, hand delivery by other travelers, and Web sites. Although each education and practice community develops unique ways to build its shared knowledge, a communications plan is suggested, with use of multiple communication techniques, especially those that are low cost and the most dependable. High-cost technologies are not always feasible or preferred. For the project described, they were not necessary to the major outcome, a nursing education and practice network that resulted in the first nurse-managed community-based clinic in China. (Index words: Communications; China; International; Collaboration; Nursing Education; Nursing practice) *J Prof Nurs* 20:381-389, 2004. © 2004 Elsevier Inc. All rights reserved.

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AS NURSING FACULTY do more collaborative education programs and research projects with colleagues in nations around the world, many find that in-depth collaboration is easier said than done (Meleis, 2002; Wright, Godue, Manfredi, & Korniewicz, 1998). The amount of time and money can easily extend beyond expectations; therefore, cost must be considered as well as feasibility, participants' preferences, and goal achievement.

The project examined here is an example of a dynamic knowledge network that built a community of education and practice (Allee, 1997; Wenger, 1996) across schools of nursing on opposite sides of the globe. The purpose of this report is to describe and evaluate the full array of communication techniques used in the 6-year preparatory period and 7-year funded period of this relationship.

History

A program of collaboration between schools of nursing at Peking University (Beida) in Beijing, China and the University of Michigan (UM) in Ann Arbor, Michigan was possible because of a series of formal and informal visits to China by UM nursing faculty in the early 1990s. Funded by small grants from the W.K. Kellogg Foundation, UM, and the individual visitors, these contacts had been facilitated by Sharon Woodcock, a retired foreign service nurse and wife of the first U.S. Ambassador to China, Leonard Woodcock.

As Meleis (2002) has remarked, international collaboration needs to be initiated by established scholars. Successful collaboration often requires early visits by school leaders, and this is certainly true for work with Chinese institutions. Accordingly, UM's Dean Hinshaw visited Beida's Dean Yao in 1996. The result was that the two deans signed a formal agreement (see Figure 1) of collaboration between their schools. This agreement assured recognition by higher university officials because the signing ceremony was held in the

AGREEMENT FOR ACADEMIC EXCHANGE AND COOPERATION BETWEEN

SCHOOL OF NURSING, UNIVERSITY OF MICHIGAN, U.S.A.
AND
SCHOOL OF NURSING, PEKING UNIVERSITY (BEIDA), CHINA

SCHOOL OF NURSING, PEKING UNIVERSITY (BEIDA), CHINA, AND SCHOOL OF NURSING, UNIVERSITY OF MICHIGAN, U.S.A., with the objective of facilitating mutual friendship, academic activities and educational cooperation between the two schools, hereby conclude this agreement.

Article 1. School of Nursing, Peking University (Beida), China, and School of Nursing, the University of Michigan, U.S.A., will cooperate in enhancing educational opportunities for faculty and students, and in promoting academic research.

Article 2 The two Schools will make an effort to promote the cooperation prescribed in Article 1 through appropriate means, as follows:

- (1) The exchange of faculty members and researchers
- (2) Distance learning
- (3) Organization of joint research projects, including conferences and meetings
- (4) The exchange of information and publications
- (5) Other activities mutually agreed upon by both Schools.

Article 3. The two Schools will consult each other regarding the implementation of the previously mentioned activities.

Article 4. This Agreement shall become effective on the date of signatures by the Deans of both Schools, and will be effective for a period of five years. The period of validity may be extended upon mutual agreement of the two Schools.

Article 5. Amendments to this Agreement may be made upon the consultation and mutual agreement of the two Schools.

Article 6. This Agreement may be terminated upon 6-months' written notice by either side.

Article 7. This Agreement shall not bind either party to a financial commitment.

Professor Ada Sue Hinshaw	Date	Professor Yao Jing-Peng	Date
Dean, School of Nursing		Dean, School of Nursing	
The University of Michigan, U.S.A.		Peking University, China	

Figure 1. Two universities' formal agreement to work together.

office of the president of Beida, with formal arrangements and approval by the university's Office of International Affairs. This type of symbolic support can be required, or at least facilitative. In both universities, the schools of nursing have received more visibility and recognition for their collaboration because they can cite this agreement in annual reports and funding proposals. As shown in Figure 1, the language of this agreement is general, not restrictive or binding.

In 1997, with this agreement signed, UM's university-wide International Partnerships Program provided funds for a formal visit by Beida's Dean Yao and then Associate Dean Zheng (now dean) to UM. As a result of this visit, both sides believed that there could be mutually beneficial activities. In Ann Arbor, we decided together to focus first on community-based nursing care because it was an emphasis of the Chinese

government and a historic interest of a nearby funding source, the W.K. Kellogg Foundation. Given the strong support of the deans of both schools, the spark provided by a person competent in both Chinese and U.S. academic cultures, and the interest of a senior UM faculty, our proposal was successful. With funding of approximately \$50,000 per year total for both sides, we have built a long-lived, substantive partnership with its primary focus on curriculum and clinical teaching and a secondary focus on research. The first stage of this collaboration was short-term training for Beida faculty (Zheng, Hinshaw, Yu, Guo, & Oakley, 2000); the second stage was expansion of Beida's undergraduate community health curriculum, including the first nurse-managed clinic in China to provide community health clinical experiences for undergraduate and graduate students (Lu, Shang & Liu, in press; Yu & Shang,

2004). Throughout, each side's expenditures were accounted for separately. In the second phase, the amount budgeted for Beida expenses required a sub-contract with UM, the primary grant recipient.

Communication Modalities

Realistically, the deeper sharing and mutuality of in-person communication has to be supplemented by a number of distance communication techniques. Case-study methodology (Gilliam, 2000; McNamee, 1988) is used to evaluate each of these techniques. The case experiences are described and then evaluated for generalizability to other long-term international collaborations using the criteria of feasibility, cost (time, money), and collaborators' preferences. Outcomes are also described.

IN-PERSON VISITS

During each year of our funded project (except 2002, during the severe acute respiratory syndrome [SARS] crisis), the UM faculty team made site visits in Beijing. Together with Beida faculty, regional or national 2-to-3-day workshops were provided, with topics such as developing community health nursing curricula, community health clinical models, and business plans for nursing clinics. During the annual site visits, the collaborative project team also spent time developing and reviewing work plans, discussing evaluation designs and instruments, and planning new proposals. Each year, visiting scholars from the Beida faculty also came to UM for short-term training of one week to one semester. Short-term learning at UM was selected because Beida could not spare faculty for longer-term training due to faculty shortages; also, both sides wanted to assure that visitors would return to their own university.

While at UM, the visiting scholars observed classes and/or clinical work, collaborated on research about Chinese or Chinese-Americans, and exchanged information with individual faculty. Beida expanded its undergraduate community health nursing curriculum after the visiting scholars shared ideas about what U.S. students learn in a community course and what community nurses do in their work. A China-appropriate vision of clinicals in community health nursing could also be discussed as the visiting scholars brought back information about what UM's community nursing clinic was like. Beida faculty used pictures, booklets, texts, and small equipment obtained at UM in their own teaching. At UM, the visiting scholars also pro-

vided courses or schoolwide seminars about health and nursing in China; and as their community health nursing program grew, the Beida faculty could share their own educational and clinical materials with UM faculty and students.

DISTANCE COMMUNICATIONS

Productivity of the project depended largely on distance communications via postal and express mail services, e-mail, fax, telephone, hand delivery by other travelers, and the Internet. Each of the distance communication channels has its advantages and disadvantages, and each should be used in the most productive ways. Illustrations are shown in Table 1.

Sending invoices, receipts, payments, and other documents between China and the United States via the post office takes 10 to 14 days for delivery but may be necessary for original documentation at prices that are lower than express mail service. While the tracking systems used by the express mail services are useful, they require specification of content. In one case, a check was returned because the receiving nation's customs service rejected such a large amount without further documentation. We learned that regular mail suffices for the official checks between universities.

Our most frequent means of communication has been e-mail, for team discussion of substantive and monetary issues, transmission of helpful materials in both directions, and for a curriculum project called the Undergraduate Connection, an online link between undergraduate nursing classes. Each month the project team at Beida met to discuss issues and progress. The next day/night the project directors at the two universities discussed these issues, UM questions, and progress reports, in Mandarin, over the telephone in order to provide interactive opportunities for questions and thoughtful discussion. Within 24 hours, the UM project team met to receive the update, to provide consultative ideas, and to formulate further questions and appropriate suggestions. The minutes of these meetings were transmitted to the entire team via e-mail. We also exchanged manuscripts, project reports, and other substantive material as e-mail attachments. Great resources can be shared by forwarding from worldwide learning materials such as the Health Programs Trainers' News (tnorton@JHPIEGO.net) and the health promotion lecture archive Supercourses (www.pitt.edu/~super1).

We have also used in-person transport of physical materials required for collaborative projects. Two research projects related to our main project have in-

TABLE 1. Using Distance Communication Channels

Type of channel	Advantages	Disadvantages	Examples
Postal mail	Air mail postage not as expensive as express mail; Envelopes not inspected at customs if no content note on outside	Takes 7-14 days from U.S. to China; Not necessary for files that can be exchanged electronically	When mailing from U.S., use "M" bags (obtained from post office) to reduce cost of sending large number of books; Best choice for original invoices and receipts, and checks; Copies of formal correspondence with funding sources
Express mail	Can be traced; Generally faster than regular mail	Requires noting contents; Relatively expensive	Exchange of documents requiring original signatures; Immigration forms
E-mail	Speedy; Easy to maintain regular, documented communication; Entire project team can be included among the cc's; Encourages additions, changes, reactions, by others	Delays due to server problems; Inadequate computer access at one or more sites; Incompatible word processing programs; Requires sensitivity to convey negative as well as positive comments	Draft & final proposals & manuscripts, PowerPoint slides for workshops, draft letters of invitation, meeting minutes; Quarterly or yearly work plans; Internet resources: forwarding documents or suggesting websites; Student learning interchanges
Fax	Speedy; Faxed signatures, letters of support, etc. often acceptable	Should be budgeted since costs may be incurred on both sides for fax machine, paper, ink; Not always private; Some fax machines turned off in non-business hours and/or must be turned on manually	Communications with organizations and individuals not reading e-mail regularly; Last minute letters of support for grant proposals
Telephone calls by appointment	More complete and spontaneous exchange possible, especially if the two speakers share competence in the same language; Suggestions and questions can be made more informal and discrete than in written form	Time zone differences and work demands can require schedule adjustments; Can be expensive	Monthly staff meetings in both locations can be preceded by a telephone update, with follow ups after both staff meetings are concluded; Last minute schedule or agenda clarifications just before site visits
Hand-delivery by other travelers	Inexpensive way to transfer bulky goods; Less likely to be questioned at customs (compared with mailed packages)	Imposes on others; May be awkward packages; Must use only a reliable and capable person	Sets of videotapes for review by counterpart researchers; Gifts to maintain good relationships with contacts
Websites	Good way to make use of bulletin board or chat-room capabilities; Can interface with course tools available at local campus(es); Maintains ongoing text and graphic history of the collaboration	Servers may be down or very slow; Access may be denied because of governmental policy decisions; Must be kept up to date, and interesting	Undergraduate Connection program to learn about health systems in the other country (changed to e-mail exchanges); Multi-paged China project website: http://www.nursing.umich.edu/usachina

volved packages (e.g., bulky videotapes, research instrumentation) carried to or from China by other travelers. Hand-carrying allowed the items to be included as regular luggage, and customs explanations were prepared. Fortunately, the travelers were not stopped.

Web sites or shared Internet spaces are often used to assist collaborations within the United States or with colleagues in westernized nations. The only attempt to use a shared Internet space was the Undergraduate Connection, a link between undergraduate nursing classes. Students exchanged information about their health systems, nursing roles, professional issues, and personal goals. The shared Internet space did not work because early trials showed that UM's shared space for courses could not be made accessible to nonenrolled students at that time. A Web site was then developed, but all UM websites were later inaccessible inside China, for reasons about which we can only speculate. Because e-mails were not blocked, the students succeeded by exchanging e-mail messages.

Evaluation of Feasibility

In-person visits require money, so if our collaboration is to be generalized, other programs need to be able to find financial support. The feasibility of financial support is probably growing. A number of universities have curricular interests in international nursing or international health (Ekstrom & Sigurdsson, 2002; Iwasiw et al., 2000; Wright et al., 1998), and universities seem to be making some real or in-kind resources available for international collaborations to build communities of nursing education and practice. The large number of experiences yet to be reported in peer-reviewed publications suggests that site-visit exchanges are feasible for many schools of nursing. Our experience suggests strongly that these be institutionally based, with early visits by the appropriate leaders.

Feasibility can be enhanced by using site-visit time wisely and minimizing dollar costs, familiar issues to nursing faculty. As with any personal or professional visit, both hosts and visitors must join in planning the timing of visits. Our experience has also made us particularly aware that it is helpful to have a clear understanding about the time commitment of the hosting institution. Especially in major cities like Beijing, leading universities are visited by many important Chinese and international experts, and teaching schedules are extraordinarily demanding. When visiting scholars

come to UM, we find that the American faculty members, particularly those who are not on the project team, can also easily feel overburdened by one more visitor. Visits on both sides are more productive when there is agreement in advance about objectives and schedules of scheduled visits (Franklin, 2001), a practice commonly adopted by nursing faculty. However, we found that it takes reminders from both sides to prepare—by e-mailing PowerPoint presentations well in advance, for example—to allow time for translation. The host site also needs adequate time to schedule in-depth meetings with experts and issue invitations to workshops or seminars. Preparing for site visits using distance communication can make precious professional time productive.

Feasibility of distance communication technologies varies when considering United States-China collaboration. E-mail access can be restricted when the only computer is in a single office that is usually locked to avoid theft in a resource-short society or when the whole system fails (as in the East-Midwest power outage of 2003) or is blocked. When people do not have their own home computers or e-mail accounts, the speed of e-mail responses can be slower and more formalized. In our experience, e-mail is less likely to be affected than Web sites, chat groups, bulletin boards, and other Internet mechanisms. But whenever there are exchanges of information and ideas, it is best to save negative input for one-to-one exchanges and use more group-oriented interchange for positive support (Gamonal, 2003). Telephone communications are excellent for people speaking the same language but too cumbersome for the busy people at both ends when translations are required. Speakerphones facilitate group interactions but may not be available at both sites. Time differences can also demand awkward accommodations at one site, or both. Fax machines may have to be turned off at night, or they may be located in a central university office, requiring extra delivery time and expense.

Evaluation of Cost

Cost of site visits can be minimized by economizing on living arrangements. Extravagant hotels send a clear message that project funds can be spent for luxurious comfort of the visitors, not for the project's productivity. While it may not be possible for Americans to stay within a foreign visitors' section of the host university because of severe lack of amenities, U.S. visitors should prepare for basic accommodations. They should feel

safe and have access to hotel staff who speak some English to help make sightseeing and other arrangements. (Nowadays there are so many nursing visitors to the major eastern cities in China, and students and young faculty are so busy that it is burdensome for them to repeatedly act as tour guides, especially outside of regular work hours. In Western China, in contrast, students and faculty may cherish opportunities to practice English and make personalized relationships). Similarly, Chinese visitors can be housed in modest settings and enjoy home stays as long as they have privacy and access to familiar foods. Most academic nurses in both countries are accustomed to sharing nonluxurious accommodations, making the type of budget for our project feasible for others.

For many cultures, and definitely for Chinese and Americans, when visits are made in either direction, the cost of gifts and banquets should be considered a substantive part of site visits. The cost of gifts can be contained by presenting university symbols (e.g., plates, calendars, pen sets) to high officials and more modest items (e.g., lapel pins, bookmarks, small photo albums of project participants) to others. Welcoming and farewell banquets are expected. They are not luxuries, but rather settings during which background and off-the-record conversations bring important issues to light. These and other informal settings such as lunches and taxi rides can be useful ways to bring up unplanned agenda items, gain deeper understanding, and gain advice about sensitive topics. Nurses in both cultures are well practiced in maximizing use of informal times with colleagues. Costs of banquets can be contained by asking Chinese colleagues to help select appropriate nearby restaurants in China and using Chinese restaurants in the United States because this would be culturally sensitive to the visitors' tastes.

Monetary expenditures ease matters on both sides. Our project budget included \$1,000 for hosting expenses (payments to students as translators and guides, for van rentals, group meals, etc.) for each site visit to Beida in addition to Beida's subcontract for establishing the clinic, \$1,000 in consultation fees for UM's nonproject content experts traveling to Beijing for workshops, and payments of \$100 to \$200 for nonproject faculty mentoring visitors for short-term training at UM. These payments markedly facilitated expansion of our community of nursing education and practice because they were tangible marks of respect for expertise and valuable professional time. If small grants such as our are not available, other institutional and personal incentives can be used. Institutional incentives could include released time or a student assistant

and at least making participation in the collaborative arrangement a matter of distinction to be considered in annual merit review and promotion applications. Personal incentives could include recognition for pursuing professional growth, nomination for awards, and recognition during a faculty meeting.

Using distance communication in the way that we did and emphasizing e-mail (including attachments), with judicious use of telephone, express mail, and fax, means that collaborative community building for nursing education and practice can be done economically. Our project added to Beida's computer capacity and helped justify additional university support for Internet connections, but beyond that, annual distance communications costs never exceeded \$1,000. Many schools are able to fold these minimal expenses into regular budgets, especially during start-up phases.

Evaluation of Collaborative Preferences

Fortunately, the biculturally competent member of our project team knew that collaborative projects with China required high-level initial exchanges followed by annual in-person site visits to Beijing and learning experiences by Beida faculty at UM. But all participants and administrators preferred limitations on the amount of in-person communication. Neither side could release faculty for an entire year. Although none were eager to return home after the short visits, none were ready to take on longer commitments on site because primary work commitments had to be fulfilled.

As for distance communications, collaborators' preferences also led to e-mail use as a natural way to communicate because e-mail is part of regular schedules and does not require transitioning to a specialized Web site, international postage, or actions outside the daily routine. Experience with customs also led us to use regular mail for reimbursement checks; however, all of us preferred spending extra money for traceable express mail of official documents such as receipts.

Although other communication channels are the basis for important ongoing international collaborations (DeSanctis, Wright, & Jiang, 2001; Ekstrom & Sigurdsson, 2002; Iwasiw et al., 2000), videoconferencing and distance learning were not necessary for our project. Our limited technology knowledge, combined with our limited financial resources and preferences, led us to use asynchronous means of communication.

Evaluation of Outcomes

Outcomes must be important to justify the time and money costs of international collaboration. The result of the entire project is an international community of nursing education and practice that will outlast the specific funding for this project. The two universities have agreed to jointly propose further projects, and existing curricular and research projects will continue.

But the most visible outcome is the first nursing-managed community-based clinic in China. The clinic is assured longevity because, as described elsewhere (Yu & Shang, *in press*), it has become a regular part of the community health nursing curriculum at Beida. Thus, it will be supported by the regular university budget for clinical practice. Before the clinic was established, community health nursing clinicals occurred in outpatient clinics of hospitals, under the aegis of physicians. Although our project was designed to achieve improvements for both universities, through our continuous and frequent communications, we came to share a sense of community in community health nursing education and practice. Nurse-managed clinics at UM increased cultural competence in caring for the numerous Chinese-ethnicity families in their service areas. Each of the communication channels contributed to these successful outcomes.

The primary outcome of our continuing in-person visits has been trust, an essential element for efficient progress toward project goals (Henderson, 2002). For instance, because the deans met four times over a 7-year period, they knew about the project personally and shared trust in one another as well as in the individual faculty participants. Beida's dean could also use each visit by UM's dean to increase central administrators' understanding of nursing's autonomous role. It was also extremely important that the project director in China could come to Ann Arbor on two occasions. Mutual trust was established by daily sharing because she stayed with the director of UM's nurse-managed, community-based clinic. Because they were together much of the time, questions and clarifications about community-based wellness definitions and projects could be exchanged easily. Through their informal conversations, it was possible to develop a shared understanding about conceptual, role, and practice differences in the two countries. Because each knew something about the other's setting, the two specialists could talk through possible adaptations and nursing applications that might work in China's very different health care system. The sense of trust generated renewed enthusiasm for both the host and the visitor as

they discussed difficulties and solutions even in an advanced practice setting that has been in existence for more than a decade (Ingersoll, McIntosh, & Williams, 2000; McIntosh et al., 2003).

Another notable outcome of in-person visits has been enrichment of the teaching and clinical depth of faculty on both sides. As one participant wrote, "Sometimes only after teachers improve themselves can they influence their students. So I think in-person visits also contributed to the reforms in education." They also made both sides realize that sharing educational materials appropriate for Chinese families enhances clinical care.

Process outcomes were largely dependent on distance communications. These outcomes include the ability to agree on objectives and schedules for in-person visits, to resolve budget issues, to develop reports and manuscripts, and to support Beida's development of their clinic. Although one side or the other initiates each of the documents involved, questions are freely asked and changes made until everyone is satisfied. The combination of e-mail, fax, and express mail has been critical for fast resolution of some editing changes and budget expenditures. Written e-mail minutes of meeting minutes, shared with all team members, means that all parties know their responsibilities clearly so they can work together for the same goals at each stage of the project.

Discussion

As nursing education, practice, and research gain global enrichment (DeDee & Stewart, 2003; Lorenson, 2002; Ogilvie, Allen, Laryea, & Opore, 2003), the issue of communication becomes increasingly important. In the future, nursing (American Nurses Association, 2001) may collaborate over great distances as is common in medicine (Laidlaw, Harden, Robertson, Hesketh, 2003; Montironi et al., 2002; Norris, 2002; Tyrell, 2002); this is also underway in dentistry (Chen, Hobdell, Dunn, Johnson, & Zhang, 2003), engineering education (Cerny & Heines, 2003), business education or collaboration (DeSanctis et al., 2001; Ivinski, 2000; Lopez & Nagelhout, 1995; Mears, 2001; Shortridge & Zhao, 1997), and secondary schools (Sleman, 1998). The usual challenges involved in any endeavor will no doubt be complicated by cultural and experiential differences, personal difficulties, and technical incompatibilities and failures (Iwasiw et al., 2000; Shortridge & Zhao, 1997).

Both in-person and distance communications re-

quire special attention by participants. Personal responsibilities include adequate and appropriate preparation and time for in-person visits, reading e-mail messages in a timely fashion, responding to all the points when requested, and discussions with the biculturally competent project member(s) to identify and resolve misunderstandings. Group responsibilities include flexibility, perseverance, and feedback about progress on the work plans.

The methodology used to examine this case study indicates that it is possible to build a community of nursing education and practice that can be generalized from two very different national traditions to other collaborations. Feasibility will depend on the amount of local support, particularly financial support for in-person visits and computer-based distance communications. As the example reported here shows, these costs can be modest if mechanisms within the daily life experience of project participants are used. Outcomes can include major innovations that enrich teaching and nursing practice in the collaborating universities. However, spreading these innovations elsewhere will no doubt take more than journal articles about the model clinic. Important steps in this direction were taken at the end of the project. During the team's last site visit, officials from other health agencies in Beijing, including the Chinese Nursing Association, were invited to participate. Further follow-up occurred when deans of two other leading schools of nursing in China and representatives from the Ministry of Health and the Chinese Nursing Association visited UM for another China-related project. All of the participants in these two meetings learned directly about Beida's

nurse-managed community-based clinic, with both astonishment and great interest.

Although we did not start with a communications plan, our experience leads us to recommend that a communications plan be part of any collaborative project's business plan. Although the elements of a business plan were detailed in our grant proposal to the W.K. Kellogg Foundation, we developed our communications plan by trial and error. Given our knowledge today, we recommend that a communications plan have the following three elements: (1) frequency and general content of in-person visits, with explicit links to a month-by-month timetable that specifies work to be implemented by all project participants; (2) specified modalities, frequency, and general content of distance communications; and (3) timelines for evaluating and improving each aspect of the communications plan.

In addition, the communications plan should be consistent with the budget and should foster building an international community of nursing.

High-cost communication channels are not always necessary. In the case presented here, the higher-cost Web-based communications did not turn out to be feasible, and the more common e-mail and postal and express mail—supplemented with faxes and telephone calls—were preferred. Selecting the most appropriate channel for each communication need was more important than spending time and energy on a more elaborate and expensive means of in-person or distance communications. An international community of nursing education and practice can be created and sustained over time with reasonable and limited resources.

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