Multidisciplinary Practice Experience of Nursing Faculty and Their Collaborators for Primary Health Care in Korea

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Purpose This study aimed to describe the range of participation of nursing faculty members and their collaborators in multidisciplinary primary health care in Korea and to analyze facilitators, benefits, barriers, and learned lessons.

Methods An exploratory descriptive research design was utilized. A total of 13 nursing faculty members and 13 multidisciplinary collaborators were interviewed face to face using a brief questionnaire and semi-structured interview guide. Descriptive statistics, comparative analysis, and content analysis were used for data analysis.

Results About 43% of the nursing faculty had multidisciplinary primary health care experience. Facilitators included a government-funded research/demonstration project, personal belief and expertise in primary health care, and well-delineated role boundaries. Benefits included improved quality of life, more convenient community life, meeting multifaceted needs of community residents, and enhanced research activities. Barriers were lack of teamwork; territoriality and self-protective behaviors; lack of insight into primary health care among stakeholders; nurses undervaluing their work; and the rigid bureaucratic system of public health centers. Learned lessons were the importance of teamwork and its synergistic benefits, the importance of conducting clinically relevant research, having the government’s support in the improvement of public health, developing health policies through multidisciplinary primary health care (M-D PHC) work, and respecting each other’s territory and expertise.

Conclusion Teamwork should be included in all health professions’ curricula, and nursing clinical practicums should include primary health care in all specialty areas. More faculties should engage in multidisciplinary primary health care. The benefits of a multidisciplinary approach to primary health care outweigh the difficulties experienced by multidisciplinary team members. The findings of this study may be useful for future multidisciplinary primary health care work worldwide. [Asian Nursing Research 2008; 2(1):25–34]

Key Words multidisciplinary approach, primary health care (PHC)

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INTRODUCTION

The concept of primary health care (PHC) was developed in the 1960s as a means of improving the health of all people, particularly in developing countries. It was established as a framework for health for all at the Alma Ata conference in 1978 and ratified by 134 countries, including the U.S. (Cueto, 2004) and Korea (Korean Institute of Public Health, 1983). PHC was defined as “essential health care based on practical, scientifically sound and socially acceptable methods and technology made universally accessible to individuals and families in the community through their full participation and at a cost that the community and country can afford to maintain…” (World Health Organization [WHO], 1978). Through active participation, citizens become knowledgeable in health matters and work with health professionals in implementing PHC (McElmurry, 1999).

In PHC, long-term economic and social changes are favored to overcome poverty, inadequate nutrition, and lack of education, all of which contribute to poor health. PHC embraces communities as key stakeholders in health, with goals of promoting self-reliance and meeting needs determined by communities (McElmurry et al., 2006). The recent renewal of endorsement for PHC by the Pan American Health Organization (PAHO, 2007) signifies the enduring core values, principles, and elements of the PHC concept, and indicates the need for incorporating the PHC concept into current health care of people around the world.

Multidisciplinary (M-D) teamwork was one of the facilitators for PHC addressed by PAHO (2007). M-D PHC was defined as PHC delivered by health professionals from multiple disciplines, including nurses, physicians, dentists, and public health doctors. For effective multidisciplinary teamwork, Lowry, Burns, Smith and Jacobson (2000) emphasized the importance of educational preparation for different disciplines, such as appreciating the unique strengths and capabilities of each member, maintaining flexible boundaries, being willing to take on the ideas of the other, sharing one’s philosophy with others, meeting regularly, respecting others, treating clients as the primary focus of care, and communicating among the interdisciplinary team. Virgin and Goodrow (1997) also depicted their interprofessional education program, which included team building and group process skills for students who worked together for 3 years. Commitment of time, good will, and willingness to share resources were also important, as were strong team leadership and communication, clear patient-oriented goal definition, an understanding and appreciation of roles among various disciplines, skillful negotiation, and shared responsibility for the patient (Barnett, Niebuhr, & Baldwin, 1998; Keough, Field, & Gurwitz, 2002).

The importance of clinical competence as well as competence in interpersonal and communication skills was also pointed out (American College of Nurse-Midwives, 1998). In addition, high-quality team processes are characterized by the pursuit of a shared vision, high interaction frequency, trust and reflexivity, which can offset impairing processes (Fay, Borrill, Amir, Haward, & West, 2006).

Multidisciplinary practice has shown effectiveness in providing care to meet the multifaceted needs of various clients (Callahan et al., 2006; Chalmers, Smith, & Carter, 1998; Kohn, Goldsmith, & Sedgwick, 2002; Orpaz & Korenblit, 1994). This wide and overlapping spectrum of health concerns has compelled primary care providers to develop collaborative care plans (Striepe & Coons, 2002). For example, Shin, Lee, and Park (2000) developed a multidisciplinary approach for a smoking cessation program with a team that included a professor, a nurse, clergy, a physical therapist, a smoking cessation educator, and a physician. Ahn, Jang, and Choi (2006) also showed the effectiveness of an interdisciplinary approach to the health and social welfare of the elderly in a rural community in Korea. The team developed integrative services managed by public health nurses collaborating with social workers.

As the roles of health providers are changing rapidly, relationships among health care professionals are often precarious, beset by competition, poor communication, and increasing pressure to do more with less (Mizrahi & Abramson, 2000). Lack of knowledge, lack of experience with collaborative work...
and education, hierarchical attitudes, and a sense of superiority have been pointed out as barriers to M-D PHC (Barnett et al., 1998; Boone, Minore, Katt, & Kinch, 1997; McCallin, 2001). Rodriguez, Rogers, Marshall, and Safran (2007) showed that when the roles of team members were redundant and not clearly delineated, the team members were not able to use their skills and knowledge optimally.

Yet, there are few studies (Ahn, Jang, & Choi, 2006; Lee, 2006) on the effectiveness of M-D PHC and nurses’ involvement in M-D PHC in Korea, although PHC in Korea has been in place for more than 28 years. Through well-established public health centers around the country, nurses, physicians, and public health professionals have played a major role in promoting the health of community residents. Hence, this study was conducted to examine the range of nursing faculty involvement in M-D PHC, facilitators, the benefits and barriers to M-D PHC, and lessons learned from practicing M-D PHC in Korea.

METHODS

Research design
An exploratory descriptive research design was utilized.

Study procedure
Approval for human subjects study was obtained from the University of Illinois at Chicago Institutional Review Board and from the Y University College of Nursing, Seoul, Korea. Then all 32 nursing faculty members in Y College of Nursing and its regional program in Gangwon-do (province) received a questionnaire asking if they participated in M-D PHC in education, research, and/or practice. All subjects received written information about the definition of PHC and the purpose and procedure of the study. Nursing faculty members who indicated they had M-D PHC experience were asked to identify their M-D collaborators. Eight physicians, four public health doctors, and a dentist (all identified as collaborators of nursing faculty in PHC) were also contacted and asked to participate in the study.

Instrument
A brief questionnaire and semi-structured interview guide were developed and pilot tested with three nursing faculty members for content validity. Instruments were revised based on their feedback. The questionnaire included four items on demographic data, along with employment history and questions about whether they had M-D PHC experience. Those with M-D PHC experience were interviewed using the semi-structured interview guide. The interview guide included eight questions with six sub-items that related to the project’s specific aims such as participants’ experiences of pitfalls, barriers, supports, and learned lessons in relation to PHC.

Data collection procedure
Before the face-to-face interview, researchers explained the purpose and procedure of the study, answered participants’ questions, and affirmed their understanding of the purpose and procedure. A copy of the consent form with signatures was provided for the participants. Most interviews were conducted in the subjects’ offices at a convenient time for them and lasted for about 30–45 minutes. Tape-recording was not done. The researchers made notes while they were conducting interviews.

Data analysis
Descriptive statistics, comparative analysis, and content analysis were used. Major categories associated with the specific research aims were delineated first, and then researchers reviewed and compared them until they were able to reach basic consensus.

RESULTS

Thirty of 32 nursing faculty members responded to the questionnaire that asked if they had M-D PHC experience (93.8% response rate). Thirteen (43.3%) of them responded affirmatively. Among them, seven were professors and six were associate professors.
from the departments of Community Health Nursing ($n=11$) and Maternal Child Nursing ($n=2$). All were doctorally prepared.

Thirteen M-D collaborators were identified by the nursing faculty. All of them were interviewed. M-D collaborators included physicians in Preventive Medicine ($n=8$), a dentist in Preventive Dentistry ($n=1$), and public health doctors ($n=4$). Among the eight physicians, four were from two universities in Seoul, two were from two universities in Kyungsang-do, and two were from universities in the Chollado area. Ten were professors, and three were associate professors. The range of M-D PHC experiences was from 5 years to more than 20 years.

**Range of participation of nursing faculty members in M-D PHC**

Seven nursing faculty members (35%) from Y University in Seoul, Korea, and six nursing faculty members (60%) from the University’s regional program in Gangwon-do indicated they had participated in M-D PHC. They had wide collaborative networks in many areas, including Seoul, Gangwon-do, Kyungsang-do, and Cholla-do (which are nearby provinces of Seoul), with various groups such as physicians, dentists, public health doctors, social workers, physical therapists, exercise physiologists, and aerobic exercise teachers.

**Facilitators of M-D PHC**

One major finding common to nursing faculty and M-D collaborators was that a facilitating factor for M-D PHC was government-funded research and/or demonstration projects. Demonstration projects involved training of nurses, public health workers, and community residents in the public health centers or primary health care posts.

Nursing faculty members stated, “For the training program of public health workers initiated by the Korean Institute of Public Health that received funding from the government, the nursing faculty developed and conducted a 6-month educational program for public health workers about direct public health service.” “As the result of a legislative initiative, the nursing faculty developed a job description of community health practitioners and conducted evaluation with physicians, health policy analysts, and public health researchers.” “The nursing faculty served as expert panel members for PHC for the Korean government and Seoul city, and helped them develop the roles and operation of PHC at public health centers in collaboration with physicians.”

In a similar vein, M-D collaborators stated, “I came to participate in PHC because the government initiated and supported the project, and asked us to join.” “Physicians who had received government funding approached the public health nursing faculty to be in charge of a training program because nursing expertise was essential for successful implementation of the PHC project.” “A 5-year comprehensive PHC demonstration project that included changes in the structure, new tools, and training of RNs and physicians at a public health center led to collaboration with the nursing faculty.” “I participated in the health promotion project that was funded by the government beginning in 1999. Along with other collaborating university professors, our activities have involved 18 public health centers nationwide.”

Most M-D collaborators added that personal belief and expertise in PHC were motivating factors for their involvement in M-D PHC. They agreed that nurses played a major role in the management of PHC work. Facilitators of M-D PHC are summarized in Table 1.

In terms of the level of difficulty in establishing and maintaining M-D PHC, six nurses (46%) versus five M-D collaborators (38%) stated that it was difficult, whereas the remaining participants thought it relatively easy. There was a difference between Seoul and Gangwon-do nursing faculty groups. Five out of seven nurses from Seoul (71%) felt it was difficult, whereas only one of six from the Gangwon-do (17%) felt the same way. A majority of M-D collaborators stated that joining an M-D team was easy for them because the team members shared the same philosophy, had open minds, or had well-established relationships before the project started. However, some physicians stated that they experienced difficulty due to conflicts, competitiveness, and rivalry among disciplines.
Benefits of M-D PHC

Table 2 summarizes the findings about the benefits of M-D PHC. Both the nursing faculty and their collaborators pointed out improved overall health and quality of life of community residents, increased self-reliance, self-confidence, and self-awareness of community residents, behavioral changes in community residents (i.e., community members became satisfied with the services), meeting multifaceted needs and solving complicated problems of community that span from public health and environment to local society solved.

### Table 1

**Facilitators of M-D PHC**

<table>
<thead>
<tr>
<th>Common to both groups</th>
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<tr>
<td>Government funding and consistent support</td>
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<td>Collaborative teamwork and communication</td>
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<td>Adequate budget and administrative support</td>
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<td>Well-educated community practitioners</td>
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<table>
<thead>
<tr>
<th>Nursing faculty</th>
<th>Multidisciplinary collaborators</th>
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<tr>
<td>Well-delineated role boundaries (e.g., physicians focus on tertiary prevention, and nurses focus on primary and secondary prevention)</td>
<td>Personal belief, expertise &amp; commitment</td>
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<td>Intensive education on PHC for all health professionals</td>
<td>Effective leadership</td>
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<td>Changes in community members’ awareness of PHC and their participation</td>
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<td>Community members’ trust in M-D team</td>
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<td>Well-established self-help groups in the community</td>
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### Table 2

**Benefits of M-D PHC**

<table>
<thead>
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<tr>
<td>Improved overall health and the quality of life of community residents</td>
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<td>Increased self-reliance, self-confidence, and self-awareness of community residents</td>
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<td>Behavioral changes in community residents (i.e., community members became satisfied with the services)</td>
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<td>Multifaceted needs met, and complicated problems of community that span from public health and environment to local society solved</td>
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<tr>
<td>More convenient community life (e.g., public telephones installed)</td>
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<td>Enhanced research activities</td>
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<tr>
<th>Nursing faculty</th>
<th>M-D collaborators</th>
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<tr>
<td>Collaborative education program developed with M-D collaborators</td>
<td>Fresh new ideas proposed</td>
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<td>Education and training of nurses and other public health workers on PHC enhanced</td>
<td>More resources available</td>
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<td>PHC in the community activated</td>
<td>Good teamwork built among members</td>
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<td>Doors for international consultations opened to other countries such as Philippines and Indonesia</td>
<td>Having nursing professors’ theoretical and technical support for planning and evaluation of the program and policy-making processes</td>
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<td>Being able to impact on the structural change of the public health centers and facilitating the delivery of PHC services in collaboration with physicians</td>
<td>Increased ability to solve unexpected problems because various experts were working as a team for the same clients</td>
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<td>Having nurses coordinating the community health team</td>
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span from public health and environment to local society, more convenient community life (e.g., public telephones installed), and enhanced research activities as benefits. The nursing faculty emphasized more of their contribution to the change in the health care system, such as doors for international consultations opened to other countries such as Philippines and Indonesia, being able to impact on the structural change of public health centers, and facilitating the delivery of PHC services in collaboration with physicians.

**Barriers to M-D PHC**

Table 3 shows the views of nurses and M-D collaborators regarding barriers to M-D PHC. Both parts reported lack of acknowledgment of the importance of teamwork (rigid role boundaries), lack of knowledge of and insight into PHC among stakeholders, and budget limitation to be barriers.

<table>
<thead>
<tr>
<th>Common to both groups</th>
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<tr>
<td>Lack of acknowledgment of the importance of teamwork (rigid role boundaries)</td>
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<td>Lack of knowledge of and insight into PHC among stakeholders</td>
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<td>Budget limitation</td>
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<tr>
<td><strong>Nursing faculty</strong></td>
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<td>Inadequate technical skills and lack of sustained support of the service providers</td>
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<td>Power struggle among disciplines for distribution of resources</td>
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<td>Inadequate facilities or research in public health center</td>
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<td>Nurses’ undervaluing their work/contribution</td>
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<td>Decreased number of public health centers with the advent of national health insurance plan of the Korean government</td>
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<td><strong>Multidisciplinary collaborators</strong></td>
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<td>Rigid bureaucratic system of public health centers</td>
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<td>Public officers’ close-mindedness and resistance to change</td>
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<td>Lack of incentives for PHC workers, as short-term effect of PHC is not readily visible</td>
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**Lessons learned from M-D PHC**

The nursing faculty realized the importance of working with M-D collaborators and learned its synergistic benefits. They also learned to practice case management in M-D PHC work. Other lessons learned were the importance of conducting clinically relevant research, having the government’s support in the improvement of public health, developing health policies through M-D PHC work, and respecting each other’s territory and expertise.

M-D collaborators, on the other hand, noted the importance of teamwork by stating, “Developing collaborative educational programs broadened the understanding of other disciplines.” “Working as a team was the hardest thing in practicing PHC because many people thought they were the best, each with different priorities.” “Teamwork should be included in student education.” “The most important thing is to remember the primary goal of the project (e.g., health promotion of the community members), and not to work only for one’s own sake (e.g., research purpose).” They also stated, “Service providers should have a clear mission and passion for the service.” “More education and training of health professionals about M-D PHC are needed, particularly on self-awareness.” “Culture and the climate of the workplace are important.” “Make more resources and new programs available and save administrative costs.” “Increase expertise in providing services and the ability to conduct research at the same time.” “Multidisciplinary health professionals tended to avoid addressing complicated and difficult tasks when teamwork was perceived as too much of a barrier.”
DISCUSSION

This study began with a question about the range of nursing faculty members’ participation in the M-D PHC in a college in Seoul that served as a Secretariat of the Global Network of WHO Collaborating Centers for Nursing and Midwifery with emphasis on primary health care.

The finding of participation of the nursing faculty appears to be low, but it is encouraging to note that they were not only from the Department of Community Health Nursing, but also from the Department of Maternal Child Nursing. Although, a small number of faculty members from the MCN Department were involved in the M-D PHC, they constituted 50% of the total department faculty, indicating their high level of commitment to PHC beyond practice in the acute care hospital. The demographic profiles of non-participants were similar to those of respondents, except for clinical specialty areas. They were faculty members from the departments of Adult Nursing, Fundamentals of Nursing, and Psychiatric Mental Health Nursing, whose clinical practice usually is in a tertiary care setting. This does not reflect the true intent of PHC, which should encompass all clinical specialty areas, particularly psychiatric mental health nursing, which is very much needed and could serve the community well.

Having nearly one-third of the faculty members engaged in M-D PHC is exemplary, given the fact that Y is in one of the top research-intensive universities in Korea, with extensive educational and service missions. It has programs ranging from baccalaureate to doctoral, with a total number of about 600 students. The number of M-D collaborators ranged from 1 to 10 per nursing faculty, and the range of M-D PHC experience of M-D team members (one for 7 months, but the rest for from 3 years to more than 20 years) indicates the depth of M-D PHC experience as well as the commitment and sustaining efforts by the participants.

In terms of facilitators for M-D PHC, the importance of teamwork was noted pervasively throughout the interviews with nurses and M-D collaborators. In-depth discussion on this aspect can be found in the work of Solheim, McElmurry and Kim (in press) that focused on M-D PHC in the Chicago area and can be found in the position paper by PAHO (2007).

Other facilitators mentioned by both teams were governmental funding and consistent support, and adequate budget and administrative support. This is in agreement with what PAHO (2007) addressed as a facilitating factor of PHC: a central element of national health policies. These are somewhat unique factors found only in the participants of this study. This phenomenon may be a result of the historical background of PHC in Korea. PHC in Korea has been developed and supported by the Korean government. When the government initiated the PHC projects, research participants were requested to join in the projects if they had interest, expertise, and willingness. In this regard, governmental funding and consistent support is vital in countries where PHC needs to be started.

It is encouraging to find both groups indicated positive impacts of M-D PHC on the health and quality of life of community residents. They thought that community residents gained self-confidence in their own health care, the multifaceted needs of community members were met, complicated problems were solved, and a more convenient community life was provided due to the M-D approach. New ideas, new opportunities, new programs, new relationships, new roles and new problem solving abilities were also reported as benefits of M-D PHC.

This result is quite similar to other study findings that focused on multidisciplinary work (Bronstein, 2003; Callahan et al., 2006; Chalmers et al., 1998; Holmes, Fairchild, Hyer, & Fulmer, 2002; Keough et al., 2002; Kohn et al., 2002; Lowry et al., 2000; Virgin & Goodrow, 1997), although these studies are not on PHC per se. Only a few studies were published that addressed both the multidisciplinary approach and PHC (Orpaz & Korenblit, 1994). According to these studies, M-D practice has provided services to meet the multifaceted needs of various clients, including alienated and marginalized groups of people. Because of the multidisciplinary nature of PHC, collaborative relationships have been developed, including flexible role boundaries and interdependence.
Reported barriers of M-D PHC included conflicts, competitiveness, and rivalry among disciplines. Hence, effective team work can be realized when multidisciplinary collaborators respect one another’s capabilities, understand one another’s roles, and emphasize individual competence rather than professional roles (Boone et al., 1997). Maintaining long-term relationships, sharing a common objective among team members, (Orpaz & Korenblit, 1994), and offering education and training of health professionals based on an interdisciplinary approach (Fitzpatrick, 1998; Lowry et al., 2000) are other ways to avoid conflicts and competitiveness among disciplines. Although the reported conflict among disciplines in this study was not severe, it might have been more helpful if the team had been able to build their relationships sharing the same objectives for a longer period, and to have more education and training based on an interdisciplinary team approach before they started M-D PHC.

Some participants in this study echoed the other barriers to PHC stated by PAHO (2007), such as fragmented vision of health and development concepts; excessive focus on curative and specialized care; excessive centralization of planning and management; inadequate budget; and overly time-bound, limited targets that do not reflect population priorities.

In terms of the degree of difficulty establishing and maintaining M-D PHC, 46% of nursing faculty members thought it was difficult versus only 38% of M-D collaborators. Although the difficulty expressed by both groups was not overwhelming, the lower difficulty experienced by M-D collaborators may be explained by their Principal Investigator role in the government-funded projects. This role allowed them to select multidisciplinary team members with whom they felt comfortable. This observation is supported by the findings from both groups that showed the most commonly identified facilitating factor as government-funded projects and the responses of the M-D collaborators, who stated that it was easy for them because the team members shared the same philosophy, had open minds, or had well-established relationships before the project started.

The contrasting opinions between nurses from Seoul (urban) and Gangwon-do (rural area) on the degree of ease/difficulty of establishing and maintaining M-D PHC were a surprise. Five of seven nursing faculty members (71%) in Seoul indicated experiencing difficulty in M-D PHC, whereas only one of six nursing faculty members from Gangwon-do (17%) did so. Nursing faculty members in Gangwon-do may have felt that it was easier to collaborate with M-D collaborators because they worked in a situation where a smaller number of health professionals work in the public health centers or primary health care posts; this provided a setting in which working together was a natural working pattern. It is also plausible that nursing faculty in Gangwon-do were able to relate to nurse colleagues, many of whom were in charge of primary health care posts. It is common for nursing faculty members to serve as advisors or consultants for nurses in primary health care posts. Having nurses in charge of the primary health care posts makes sense, as this is the smallest unit of the public health system, where direct contact with community residents occurs and the opportunity to impact on PHC is higher than in public health centers, which have a highly developed bureaucratic system. Conversely, the lack of primary health care posts in a city like Seoul, compared with 130 such posts in Gangwon-do (Korean Ministry of Health and Welfare, 2006), may have contributed to difficulties that nursing faculty experienced in Seoul. Such a situation suggests PHC is construed as a type of care more apropos in rural areas in Korea. Recognizing the need for PHC in cities, the Korean government in 2005–2006 supported demonstration projects for sub-public health centers in cities such as Seoul, Busan, Daegu, and Inchon. A sub-public health center is a mid-size health center that is in between the public health center and the primary health care post (Lee, 2006).

The paucity of publication in scholarly journals on M-D PHC in Korea was a surprise, given the numerous projects noted even during our study period. Closer examination of the situation suggests that most health professionals submitted reports to funding agencies, and they may have considered these as publications and did not follow up by publishing articles in professional and/or scientific journals.
Such an approach limits the dissemination of valuable information to scholars outside of the funding agencies and abroad.

The findings of this study with a purposive sample of small numbers may not apply to other settings or countries, although the sampling method and procedure may be useful for other similar studies. The addition of experiences of community residents to this study sample would have complemented the findings and given better insights into M-D PHC. The study was conducted over a 2-year period (2001–2003), but there have been no studies similar to this published since then.

CONCLUSION

It is encouraging to note that a sizeable percentage of doctorally prepared nursing faculty members participated in M-D PHC and that they were not only from a community health nursing background but also from maternal child health nursing. M-D PHC was beneficial for the health and quality of life of community residents by providing effective health care. Nursing faculty and nurses were perceived as key members for successful implementation of M-D PHC. Factors that facilitated M-D teamwork, such as government funding and supportive policies for PHC, need to be seriously examined and taken up by the government for continued success. Health professionals from multiple disciplines should embrace and internalize the importance and essentiality of teamwork for successful PHC for the sake of the health of the public. Territoriality and self-protective behaviors of each discipline should be minimized. The importance of teamwork should be included in the curricula of all health profession schools. Nursing clinical practicum should include PHC, not only in the community health nursing rotation but also in maternal-child, adult nursing, and psychiatric-mental health nursing. More faculty members should engage in teaching, practice, and research of PHC that involves collaborators from multiple disciplines. Administrators of public health centers should heed the factors identified as barriers and make the bureaucratic system more transparent and nimble/flexible.

The benefits of the M-D approach to PHC outweigh the difficulties. The findings of this study may provide a more realistic understanding of how nursing faculty members and nurses can work with health professionals from different disciplines in the community setting for PHC, and can be used as a guide for future M-D PHC work worldwide.

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REFERENCES


