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Collaborative practice in a global health context: Common themes from developed and developing countries

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Abstract
This paper reports on a study commissioned by the World Health Organization (WHO) to explore common themes of collaborative practice. The WHO requested global clarification of (1) the nature of collaborative practice, (2) its perceived importance, and (3) strategies for systematizing collaborative practice throughout national health systems. While there are many interpretations of collaborative practice around the world, there was a need to ascertain common underlying themes that illustrate good practice in both developed and developing countries to inform an international Framework for Action. A multiple case study design was used to examine collaborative practice in primary health care and commonalities across countries. Staff at each of WHO's six regional offices invited key informants in one or two primary health care organizations where collaborative practice was the model of care to complete case studies. Ten case studies were received from ten different countries, representing all six WHO regions. The results are described according to the study's three areas of focus: describing collaborative practice globally, the shared importance of collaborative practice, and systematizing collaborative practice. Collaborative practice requires a strong political framework that encourages interprofessional education and teamworking. Shared governance models and enabling legislation are required. At a practical level, interprofessional health care teams function most efficiently with shared clinical pathways and a common patient record.

Keywords: *Collaborative practice, interprofessional education, teamwork, health care delivery, case studies, global health*

Introduction

In the current environment of increasingly complex health care needs, there is a clear requirement for collaboration among health workers from different professional backgrounds as no one person is able to deliver care to meet the complete needs of the patient

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(Loxley, 1997). Patients and their families often want and expect to be actively engaged in managing their health conditions, and expect appropriate and accessible care. Across the world, health care systems – which incorporate various combinations of primary, secondary and tertiary care – depend on health workers working together across professional groups and system boundaries. Collaborative practice is regarded as increasingly important to help enable health systems worldwide to provide safe, timely and quality services with limited human and financial resources. In developing countries, primary health care professionals train families and helpers to care for their relatives, and in some areas of Africa, for example, nurses manage primary health care clinics and perform tasks that may be the responsibility of different professionals in other countries (South African Department of Health, 2000).

The research literature has suggested a number of benefits for collaborative practice for patients, health workers and health care organizations. Patients, for example, have reported higher levels of satisfaction, better acceptance of care, fewer clinic visits and improved health outcomes (Hughes et al., 1992; Sommers, Marton, Barbaccia, & Randolph, 2000). Other examples include a reduction of medical errors by improved communication and a reduction of unexpected cardiac arrests with the introduction of a medical emergency team (Buist et al., 2002; Oandasan et al., 2006). In addition, one study indicated that the use of evidence-based care pathways delivered by interprofessional hospital teams to prevent central line infections has resulted in reduced mortality, reduced hospital stays and cost savings (Berwick, 2005). Studies with primary health care teams have also suggested that they can reduce rates and costs of hospitalization for elderly patients with chronic illnesses (Sommers et al., 2000) and for patients with mental health illnesses (Jackson et al., 1993).

Furthermore, health workers have also reported improved job satisfaction and greater role clarity when working in teams by sharing problems and supporting each other (Borrill, West, Shapiro & Rees, 2000; Haward et al., 2003; Taylor, Blue & Misan, 2001). Based on the developing evidence base, it has been argued that this collaborative way of working can enhance the efficiency of teams by reduced service duplication, more frequent and appropriate referral patterns, greater continuity and coordination of care, and collaborative decision-making with patients (Mickan, 2005).

In order to systematize collaborative practice and make global recommendations for national health systems, there is a need to identify the commonalities of actual collaborative practice in all of its localized variations. An international Framework for Action needs to be informed by common practical understanding and implementation of collaborative practice. A subgroup of the World Health Organization (WHO) Study Group on Interprofessional Education and Collaborative Practice was therefore asked to explore and elucidate (1) the nature of collaborative practice, (2) its perceived importance, and (3) strategies for systematizing collaborative practice throughout national health systems.

This paper reports on the WHO Study Group's work which aimed to examine examples of collaborative practice from developed and developing countries, assess the barriers and facilitators for successful collaborative practice, and make recommendations to inform global and national health policymaking processes. Other work has been described elsewhere (Rodger & Hoffman, 2010; Thistlethwaite & Moran, 2010; WHO, 2010a; WHO, 2010b; Yan, Gilbert & Hoffman, 2007).

Defining collaborative practice in health care

To ensure a common understanding of collaborative practice by all project participants, the WHO Study Group defined it as the following:

> *Collaborative Practice* in health care occurs when multiple health workers provide comprehensive services by working together synergistically along with patients, their families, carers and communities to deliver the highest quality of care across settings (WHO, 2010a).

This definition builds on the one developed by the Ontario Interprofessional Care Steering Committee (2007) in Canada, and uses WHO's definition for *health worker*, as "all people engaged in actions whose primary intent is to enhance health" (WHO, 2006, p. 1). Therefore, health workers include those who promote and preserve health (e.g., sanitation engineers, managers) as well as those who provide health services directly (e.g., nurses, doctors, care/aid workers, technicians). These health workers may be professionally "regulated", such as physicians, nurses, and pharmacists, or "unregulated", such as health care assistants, community workers, volunteers and health system planners.

Collaboration occurs *within* professions and between sectors, as well as across the continuum of patient care, with health workers communicating and collaborating in and across different settings (D'Amour & Oandasan, 2005); this study focused on collaborative practice in primary health care settings. It is also important to distinguish between *collaboration* and *coordination*, the latter of which occurs when different types of practitioners deliver care independently but in an agreed sequence, and *cooperation*, which occurs when people agree to passively work together without agreed upon shared goals (Aliotta, 2003; Way, Jones & Baskerville, 2001).

Methods

A multiple case study design was chosen to examine collaborative practice in primary health care settings across developed and developing countries (Yin, 2003).

Data collection and analysis

The WHO's resources and systems were used to source case studies from geographically diverse organizations that focused on the delivery of primary health care. Senior staff at each of WHO's six regional offices in Brazzaville (Africa), Cairo (Eastern Mediterranean), Copenhagen (Europe), Manila (Western Pacific), New Delhi (South-East Asia) and Washington DC (Americas) invited leaders of one or two organizations where collaborative practice was occurring in primary health care to participate in this study. These local leaders functioned as key informants, as they had, by the nature of their position, a deeper insight into collaborative practice in their own country (Marshall, 1996).

We developed a short questionnaire that contained open-ended questions about local examples of collaborative practice, using the agreed definition of collaborative practice. This served as a guide to limit the scope of responses (Baxter & Jack, 2008). Key informants were asked to describe their position, team members and context of work, their practice, and to comment on the difficulties encountered with collaborative practice and the benefits for patients and health workers. The wording of the template was checked to ensure that it was sufficiently clear for non-native English speakers.

Ten key informants provided email responses to WHO staff, who forwarded them to WHO Study Group members.

The process of analysis was largely descriptive, and guided by the definition of collaborative practice. The content of all case studies was examined by the three authors to identify and understand the differences and similarities between them (Baxter & Jack,

2008). We were looking primarily to confirm similar results (Yin, 2003). Through this comparison and convergence of the data, we synthesized a shared picture of how collaborative practice occurred in a wide variety of cultures and geographical areas.

Ethical approval was not required for this project in keeping with the institutional policies of the WHO. Staff at the organization's six regional offices gathered the case studies in the course of their work and would have followed any additional national and/or regional ethics regulations as required.

Results

Ten case studies were received from ten different countries: (1) Canada, (2) Denmark, (3) India, (4) Japan, (5) Nepal, (6) Oman, (7) Slovenia, (8) Sweden, (9) Thailand, and (10) the United Kingdom, representing each of WHO's six regions. This sample contained both developed and developing countries as well as diversity in culture and geography. The results are described according to the study's three areas of focus: describing collaborative practice globally, the shared importance of collaborative practice, and systematizing collaborative practice. Table I contains a summary of the international case studies.

Describing collaborative practice globally

In all ten case studies, collaborative practice was described in relation to patient populations who had specific, complex and/or continuing care needs. In all case studies, collaborative practice was recognized as important when patients required input from more than one health worker. Patients with chronic illnesses and mental health and social conditions were often the population identified as benefiting from collaborative practice. Health promotion and rehabilitation were also specifically mentioned. The range of collaborative practices reported on in primary care settings occurred within health care centers and between health care centres and hospitals, and in both urban and rural areas.

Many primary health care teams were centred around physicians and included various other team members who contributed to patient management and care plans. The professionals involved in these teams reflected the expertise required for the population's care. In most cases, at least four different groups of workers were described and these included both regulated and unregulated professionals (see Table I for details about the patient and staff members of each team). In the case study from Maribor, Slovenia, the physicians decided on a patient's diagnosis and therapy, and the health care team together determined the overall complex care plan.

Most commonly, collaborative practice was actioned via regular team meetings, where common goals and patient management plans were negotiated. The frequency of team meetings varied between cases, as did the way in which shared goals were set. Most commonly, decisions and plans for patients and their families were made based on all team members' observations. Through regular working and sharing of resources, team members learned to understand and respect each other's contributions.

For example, collaborative practice in Khon Kaen, Thailand, was led primarily by nurses and a few physicians in hospital and public health settings, and included the agencies that provided services in the geographical area. They focused on patients who had chronic health conditions and were under-privileged, at risk for communicable diseases, elderly, and needing basic and continuous care. Similarly, in Vellore, India, community health and other nurses provided surveillance, health promotion and chronic disease management for pre-natal mothers, children under five and patients with chronic diseases, in homes, schools and primary health care clinics. They operated a referral system to secondary and tertiary care

Table I. Summary of international collaborative practice case studies.

Country	Practice setting	Who is involved?	Barriers and facilitators
Canada	A family practice teaching clinic located in an urban setting	*Patients*: Complex patients living with chronic and mental illnesses	*Barriers*: Lack of an electronic health record; interpersonal conflicts; lack of structured protocols
		Staff: Family physicians, mental health workers, nurses, nurse practitioners, nutritionists, pharmacists, public health nurses, receptionists and social workers	*Facilitators*: Remuneration models; a governance model that shares responsibility between professionals; interprofessional rounds; committed leadership
Denmark	General practice clinics in Denmark, each serving between 1600 and 2500 patients, in urban and rural areas	*Patients*: All types of patients	*Barriers*: Unsuitable office and administrative space for all tasks; unclear division of responsibility and competency between different staff groups
		Staff: General practitioners, administrative staff, nurses and laboratory technicians	*Facilitators*: Self registration of patients; joint discussion of patients by general practitioners and other staff
India	A psychiatric hospital located in a semi-urban setting	*Patients*: People living with mental illnesses (children, adolescents and adults)	*Barriers*: Miscommunication
			Facilitators: Open communication; approachability and adaptability of team members
		Staff: Nurses, occupational therapists, psychiatrists, psychologists, social workers, special education teachers and supportive staff	
Japan	All types of health services located in an urban setting	*Patients*: Pregnant women and young children	*Barriers*: None identified
			Facilitators: Supportive legislation; structured protocols; team conferences
		Staff: Clinical psychologists, dental hygienists, nutritionists, paediatricians, public health nurses and social workers	
Nepal	A hospital and an educational institution located in an urban setting	*Patients*: Mothers and their newborn babies	*Barriers*: Time constraints; traditional care delivery models
		Staff: Nurses and physicians	*Facilitators*: Evidence; government policies

(*continued*)

Table I. (*Continued*)

Country	Practice setting	Who is involved?	Barriers and facilitators
Oman	Four community health centres located in urban areas	*Patients*: All types of patients *Staff*: Doctors, nurses, assistant pharmacists, laboratory technicians, x-ray technicians, dieticians, health educators and medical orderlies	*Barriers*: Managing difficult personalities; staff turnover *Facilitators*: Commitment from high-level policymakers; ongoing staff training, including communication skills training; clear guidelines; meetings between health workers and system planners; spirit of teamwork
Slovenia	A community health centre	*Patients*: All types of patients *Staff*: Dentists, nurses, physicians, physiotherapists and social workers	*Barriers*: New members being introduced into teams *Facilitators*: Supportive health legislation; same payment scheme for all health workers; professional development programs that focus on teamwork
Sweden	Four major hospitals located in an urban setting	*Patients*: All types of patients *Staff*: Medical, nursing, occupational therapy and physiotherapy students	*Barriers*: Professional prejudices and attitudes *Facilitators*: Standard protocols
Thailand	A community clinic located in a rural setting	*Patients*: All types of patients *Staff*: Nurses and physicians	*Barriers*: Lack of time and resources *Facilitators*: Supportive policies from universities, agencies and government; ccommon goals; regulatory bodies; financial support; trusting relationships
United Kingdom	An outpatient clinic located in an urban setting	*Patients*: People living with incontinence *Staff*: Nurses, occupational therapists and physiotherapists	*Barriers*: Discord between teams; time constraints; lack of managerial support *Facilitators*: Regular face-to-face meetings; respect for other professions

services and they followed up patients in hospital, providing written and face-to-face communication to ensure continuity of care. In a primary health care clinic in Toronto, Canada, receptionists booked patients with appropriate professionals, according to their need. In addition, a shared chart and interprofessional ward rounds were identified as important elements for care. In Slovenia, a central health workers committee, made up of representatives from all professional groups, met twice each month to foster dialogue among the different groups.

The shared importance of collaborative practice

There was consistent reporting across all case studies of the benefits of collaborative practice for patients and health workers. For patients, collaborative practice facilitated prompt, appropriate and cost-effective treatment, and avoided unnecessary and unwanted treatments, which occurred when health workers were practicing without knowledge of each others' efforts. For example, patients with psychiatric illnesses in India were reported to experience better and earlier improvement in their health status when treated with a team approach, and they and their families had greater trust in the health workers.

For health workers, the reported benefits of collaborative practice included a better understanding among team members, open and honest communication, and the belief that health workers felt they provided better patient care working as a team. They saw patients being treated properly and able to resume their normal living. They reported gaining confidence with each clinical decision made by the team, as it made it easier to handle similar cases effectively in the future. Health workers also valued developing good relationships with other team members. In Maribor, Slovenia, health workers reported feeling more satisfied because they were able to fulfill their professional role, for which they have the needed knowledge and skills.

Systematizing collaborative practice

Common facilitators for collaborative practice were identified in the case studies as being important for its systematization throughout national health systems. Detailed barriers and facilitators for each case study are described in Table I. In many cases, the active management of issues identified as barriers could transform them into facilitators. Therefore, these individual comments were synthesized into three themes relating to (1) team functioning, (2) governance, and (3) preparation for collaborative practice.

Team functioning issues were the most commonly reported. Positive team practices included regular team meetings, open communication, and a clear patient focus. Individual team members needed clear divisions of responsibility and roles that were consistent with their skills. This facilitated a shared understanding and respect for all professionals working in the team. Clear leadership and ongoing professional development about teamworking were also identified. Indicators of poor team functioning that were described as barriers to collaborative practice included limited understanding of and orientation to team working, prejudices against other health professionals, interpersonal misunderstanding, conflict and unachievable team goals.

Governance can be described as the processes which define expectations, grant power and verify performance (World Bank, 1991). Local and national policies utilize different models and sets of processes to achieve this goal. With respect to collaborative practice, aspects of governance which were highlighted included supportive health legislation, consistent payment schemes for all health workers, structured protocols, and commitment from

high-level policymakers. Clear governance models which shared responsibility between professionals were also seen to be important. For example, national health legislation in Slovenia describes interdisciplinary and multiprofessional health care, which is in turn interpreted into local rules and practices by individual health organizations. In Oman, meetings between system planners and health workers were seen as positive. In Thailand, supportive policies which aligned the work of universities, agencies and government were described.

In contrast, the lack of structured information systems and processes were reported as significant barriers. Examples of structured information systems that could promote collaborative practice included common patient protocols (care plans or pathways) and a shared electronic health record. While the absence of structured protocols, such as team-based clinical pathways, for seeing patients was considered a significant barrier, their presence was also highlighted as a major facilitator for collaborative practice. It was noted in several cases that these protocols could incorporate research evidence to ensure health workers maintain quality and safe practice. Although no case reported an integrated electronic health record, it was reported as being ideal for primary care clinics in Toronto, Canada. Further, the need for all patient activity to be documented in one individual health chart was emphasized for maternal and child health clinics in Kobe, Japan.

The need for health workers to be prepared for collaborative practice was also consistently reported. In several case studies, ongoing staff training and orientation was mentioned with respect to both communication and teamwork skills development. In Toronto, Canada, regular teaching rounds were organized by medical residents, to which other health professionals and students were invited. Evaluation of Clinical Education Wards at the Karolinska Institutet in Sweden has shown that students have utilized opportunities of working together to develop their own professional roles and learn about other professions. The community health nursing department in Vellore, India, has organized an extensive orientation programme for new staff that highlights the services provided by various departments, the common referral system and the need for working collaboratively.

Discussion

The findings from these case studies are congruent with the research literature. At the broad level of organizational structures, it is recognized that shared governance models and supportive policies are important for collaborative practice (Jackson et al., 1993). For example, health legislation can explicitly state the expectation that health workers collaborate with each other, across disciplines and across sectors such as hospitals, community centres and patient homes (First Ministers' Accord on Health Care Renewal, 2003; First Ministers' Meeting on the Future of Health Care, 2004). In clinical settings, it is important that policies recognize, support and reward collaborative practice. All staff who work together require fair and equitable work expectations, conditions and acknowledgment. When individual health workers have clear job and professional expectations with appropriate autonomy, they can earn and develop respect from others. Good human resource management principles are important throughout all levels and types of health care organizations (Michie & West, 2004).

A team approach is both efficient and effective for health care provision. Health care systems that support effective teamwork can improve the quality of patient care, enhance patient safety and reduce burnout among health workers (Oandasan et al., 2006). With clear policy and expectations, regular patterns of communication and supervision are vital in creating functional teams of health workers. The case studies confirmed that teams that

share and discuss information about specific patients are able to agree on common patient and team goals and make and implement decisions in a participatory way. In essence, all communication should be focused on the provision of patient care, and patients and their families should be included as participating members.

There is a need for health workers to be prepared educationally for communicating and working in teams. We currently have a limited understanding of how individuals learn to be effective collaborators (Leggat, 2007). Therefore, it is vital that all health workers are educated about the need, required skills and benefits of teamwork and collaborative practice. There is a need for interprofessional education to be included in students' training and continue in practice with qualified health workers (Coster et al., 2008; Hoffman & Harnish, 2007). Interprofessional education offers an ideal environment to learn about teamwork and can create a common platform and understanding for health workers to improve teamwork in practice (Canadian Interprofessional Health Collaborative, 2007).

A specific practical challenge for collaborative practice lies in the location of patients' medical records. Shared records are important but create many logistical challenges. Electronic health records offer a real solution, but may incur high costs and technical expertise and rely on easily accessible computers with internet access. Another practical challenge lies in the development and use of structured common protocols or team-based clinical pathways for delivering care. It is possible for these care pathways to incorporate research evidence and to accommodate for geographical and cultural needs. Health care teams in different countries and settings need to be financially supported, competently led and empowered to develop new models of care delivery, where it is most appropriate.

While many of these insights on collaborative practice are not new, the results from these international case studies demonstrate a shared understanding of important aspects of collaborative practice across cultures and geographically diverse regions.

The limitations of this project are that ten case studies cannot be generalized globally. They cannot reflect all regions of the world or practice settings. Further, the key informants who provided the case studies are unlikely to represent the majority view of individuals in their community (Marshall, 1996). These informants may have purposefully chosen to highlight positive examples to beneficially portray collaborative practice and/or their respective organizations. However, they present an initial global picture of collaborative practice that is consistent with what is known from the research literature and between developed and developing countries. We recognize that this shared understanding is helpful for developing global recommendations. However, at the same time, more research is required to understand the cultural complexities of collaborative practice and its regional variations.

Conclusion

This analysis of case studies has clarified a common understanding of collaborative practice that is consistent between our original definition, the research literature and case studies from developed and developing countries. It has already informed some specific recommendations to promote and facilitate collaborative practice that were published in WHO's Framework for Action on Interprofessional Education and Collaborative Practice (WHO, 2010a). Now it is up to governments and health care leaders to evaluate their own systems' strengths and weaknesses against these guidelines and take action that is appropriate for their local context.

We conclude that effective collaborative practice can be fostered by adopting appropriate models of shared governance that encourage team working between different health

professionals and across sectors. Practice teams need careful management and leadership, and current and future health care workers need interprofessional education to maximize their communication and teamworking skills. Developing common structured clinical care processes which are used by all team members, and designing efficient and integrated patient record systems, are also important.

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