Finding the Right Mix: How Do Contextual Factors Affect Collaborative Mental Health Care in Ontario?

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Cette recherche avait pour objets : 1. de décrire les facteurs qui influencent la collaboration entre les intervenants venant de différentes disciplines en santé mentale ; 2. d'expliquer l'association de différents intervenants dans des modèles existants d'offre de soins en partenariat ; et 3. de concevoir un cadre théorique pour mieux comprendre les facteurs qui facilitent et ceux qui entravent l'offre de soins en partenariat par des intervenants de diverses disciplines, et ce, en utilisant le cas de l'Ontario comme exemple. Pour établir les facteurs importants pour le développement, en santé mentale, des soins offerts en partenariat par des intervenants de diverses disciplines, nous avons puisé dans la littérature existante sur le sujet (travaux universitaires et rapports traitant de politiques publiques), et nous avons réalisé des entrevues en profondeur avec des personnes clés travaillant en médecine familiale, en psychiatrie, en psychologie, en travail social et en soins infirmiers.

The purpose of this research was (i) to describe the factors that affect collaboration among mental health service providers of different disciplines, (ii) to understand the mix of providers in existing collaborative care models, and (iii) to develop a framework to better understand the barriers and facilitators to interdisciplinary collaborative mental health delivery using Ontario as a case example. We draw upon the academic and policy literature and in-depth interviews with key informants from the disciplines of family medicine, psychiatry, psychology, social work, and nursing to identify factors that are important to the successful development of interdisciplinary collaborative mental health care.

Introduction

Family physicians have always provided a substantial proportion of mental health services in Canada and this proportion has grown in recent years (Arboleda-Flórez and Saraceno 2001). Long waits to see specialists and shortages of psychiatrists and family physicians (Goel *et al.* 1996; Pitblado and Pong 1999; Pare and Gilbert 2004) have placed pressure on practising family physicians, especially when treating more complex cases. Increasingly, family physicians have indicated their need for support from mental health professionals in mental health service delivery (Craven *et al.* 1997). In 1997, the Canadian Psychiatric Association and the College of Family Physicians of Canada issued a joint paper stressing the need for improved communication between family physicians and psychiatrists entitled, "Shared Mental Health Care in Canada." They challenged physicians and policymakers to facilitate the expansion of shared mental health care (Kates and Ackerman 2002).

A number of models of "shared" or "collaborative" mental health delivery have emerged in recent years. What sets collaborative care apart from traditional approaches is that the family physician and psychiatrist or other mental health professional are concurrently involved in the patient's treatment, often using a team approach, with the family physician remaining the ongoing health-care provider (Kates and Ackerman 2002; Craven and Bland 2002). According to the Canadian Collaborative Mental Health Initiative (CCMHI):

> Collaborative mental health care is a concept that emphasizes opportunities to strengthen the accessibility and delivery of mental health services in primary care settings through interdisciplinary collaboration. It is not a fixed model or specific approach (Gagné 2005, 5).

Increasingly, there are calls to widen the array of disciplines in the collaborative care team (Craven and Bland 2002; Canadian Mental Health Association 2003). The best-practice literature indicates psychotropic medications and psychotherapy should be used alone or in combination according to patient needs (Dewa *et al.* 2000; Ontario Medical Association 2001). Only physicians have prescribing rights in Canada, but other mental health providers (e.g., nurses, social workers, and psychologists) can offer psychotherapy and counselling support.[1] The Canadian Mental Health Association in its brief to the Standing Senate Committee on Social Affairs, Science and Technology, which studied mental illness and mental health care in Canada (Kirby 2005), called for a national mental health human resources plan and recommended "*interdisciplinary* linkages between physicians and psychologists, nurses, social workers, occupational therapists and addiction counselors" (Canadian Mental Health Association 2003, 22).

Models that promise improved access and quality of care using existing health human resources are particularly appealing to policymakers who face budget constraints and long lead times to develop additional health human resources. From a political perspective, there are encouraging prospects for expanding interdisciplinary collaborative care models at both the federal and provincial levels in Canada. The First Minister's Accord on Health Care Renewal (Health Canada 2003) provided transitional funding for primary care renewal that led to a number of interdisciplinary collaborative mental health-care pilot projects.[2] More recently, the Kirby Commission recommended the creation of a Canadian Mental Health Commission to advance mental health reforms in Canada, including expansion of collaborative care (Kirby 2005). In Ontario, the government's ongoing Transformation Agenda (Ontario. Ministry of Health and Long-Term Care 2006) includes the development of interdisciplinary primary health-care delivery teams, which present an opportunity to integrate interdisciplinary mental health-care providers into developing Family Health Teams (FHTs) (Ontario. Ministry of Health and Long-Term Care 2004).

It must be recognized, however, that traditional solo physician-based practice has a long tradition in Canada and that changing health-service delivery models and altering the mix of providers is not simply a matter of rearranging headcounts of professionals and the settings in which they practise. If these models are to succeed, careful attention must be given to understanding (i) traditional barriers to their advancement, (ii) the prospects for developing interdisciplinary models within the context of existing barriers, and (iii) necessary policy reform over the longer term to remove those barriers.

The purpose of this research was (i) to describe the factors that affect collaboration among mental health service providers of different disciplines, (ii) to understand the mix of providers in existing collaborative care models, and (iii) to develop a framework to better understand the barriers and facilitators to interdisciplinary collaborative mental health delivery. Ontario was selected as a case study because many of the early collaborative mental health-care models were developed in the province, in part due to impetus from the Hamilton HSO Mental Health and Nutrition Program (Kates and Ackerman 2002), one of the first such programs.

Primary Mental Health-Care Delivery in Ontario

There has been rapid growth in primary mental health-care delivery in Ontario in recent years. The percentage of patients requiring mental health services rose by 13 percent between 1992 and 1998, while overall growth in health-care users was 4 percent (Arboleda-Flórez and Saraceno 2001). Family physicians are the main point of access and major providers of mental health-care services. Based on OHIP billing data, in 1997/98, most mental health-care users (63 percent) received care from a general practitioner or family physician only; 22 percent saw a psychiatrist only; and 12 percent saw both (Lin and Goering 2000).

Family physicians need backup from mental health professionals for more challenging cases and "are often concerned about the patient's access to appropriate care once they require care outside the physician's level of expertise" (Ontario. Ministry of Health and Long-Term Care 2001). They are concerned about having adequate time to deal with patients requiring psychotherapy and detailed assessments in a busy practice. Shortages of psychiatrists magnify these concerns in rural areas. While 15 percent of the population lives outside urban areas (Statistics Canada 2002), only about 2 percent of psychiatrists reside in these areas (Canadian Psychological Association 1999; Craven and Bland 2002). Northern regions also face longer wait times, greater distance for referral, and provider isolation (Commission on the Future of Health Care in Canada 2002; Pong and Russell 2003).

From the perspective of health human resources, there may be other providers available who could provide services or support family physicians in supplying mental health care. It has long been recognized that there are many potential providers of counselling and psychotherapy services, such as family doctors, psychologists, nurses, social workers, and occupational therapists (Dewa *et al.* 2000). In its review of Ontario's health system in 1970, the Committee on the Healing Arts stated that: "Psychodiagnosis and psychotherapy are two major functions of psychiatrists that can, in principle be shared with other senior mental health professionals, such as clinical psychologists and psychiatric social workers" (Hanly 1970, 98).

Even though there are only a modest number of collaborative care programs in the province, there is widespread interest in further development of programs. Existing models typically include psychiatrists, family physicians, social workers, and nurses. Very few include psychologists. Our study helps to illuminate the various contextual factors that have affected the numbers of programs in existence in the province and their human resources composition from different disciplines.

Methods

A multi-method, though largely qualitative, policy analysis approach was used in this study. Data sources included primary and secondary source literature pertaining to primary care renewal and collaborative mental health care in Ontario and a series of key informant interviews.

The published academic literature (i.e., secondary source) on collaborative (or shared) mental health care and the gray literature (i.e., primary source policy documents, reports by various stakeholder groups) from 1980 to 2005 were reviewed. Various databases, including *Pubmed* and *Ingenta* were searched to locate key secondary sources. Keywords included: mental health services, collaboration, collaborative care, integrated services, interprofessional relations, multidisciplinary, shared care, organized delivery services, teams, family medicine, primary care, professional barriers, and professional roles. Stakeholder groups targeted for primary source documents included the Canadian Psychological Association, Canadian Psychiatric Association, Ontario Medical Association, Canadian Collaborative Mental Health Initiative, Canadian Mental Health Association, Ontario Psychological Association, Centre for Addiction and Mental Health, Ontario College of Family Physicians, Ontario Federation of Community Mental Health and Addiction Programs, General Practice Psychotherapy Association, and College of Physicians and Surgeons of Ontario. Submissions to the Romanow and Kirby Commissions were reviewed, as were mental health policy documents of the Ministry of Health and Long-Term Care, and reports of the Ontario Mental Health Implementation Task Forces.[3]

The document review served as a basis for understanding the policy context, identifying existing programs for initial sampling of interview participants, and developing the initial interview guides. The literature was revisited following the analysis of key themes in the interviews to confirm and expand more fully on some of the factors raised by the key informants.

Interviews were conducted with 12 key informants (KI) to explore their views on factors that affect multidisciplinary collaboration in mental health service delivery.[4] Participants were selected through purposive sampling, with a maximum variation sampling strategy in terms of provider discipline (psychiatry, family medicine, nursing, psychology, and social work), setting of service delivery (which affects funding and remuneration and public versus private payment), professional role, service-delivery model (degree of multidisciplinary collaboration), and geographic location. Wherever possible, participants who had experience working in a variety of settings and who could comment from a number of perspectives were selected. Through snowball sampling, additional informants were added to complete the sampling matrix.[5]

All interviews followed a semi-structured guide, were conducted by the first author by telephone, and took between 45 minutes and an hour and a half. The initial interview guide focused on how geography and economic issues identified in the literature (e.g., differences in insurance coverage, remuneration, and funding streams across disciplines) could act as barriers to collaboration. With each progressive interview, the guide was used more flexibly, because its open-ended nature enabled the respondents to identify numerous other factors that were also critical for interdisciplinary collaboration. The interviews were recorded on audiotape and transcribed by a professional transcriber who signed a confidentiality agreement. Ethics approval was obtained from the McMaster Research Ethics Board. Participants had an opportunity to review relevant portions of the analysis to ensure their accuracy.

Analysis of the findings was ongoing throughout the data-collection period. This allowed emergent issues to be probed during subsequent interviews and to inform the sampling of additional informants.

Sampling continued until saturation with regard to the contextual factors was reached. Each transcript was then thoroughly reviewed by the first author to reveal common themes. These themes were coded using NVivo qualitative analysis software. Some of the themes were directly related to the interview questions and others emerged from the interviews. The richness of the diversity of factors raised by respondents and their concurrence about the importance of these factors prompted a return to the literature to further assess the salience of these issues. It also led directly to thinking about how to place the diversity of factors into a coherent framework that would be helpful to policymakers and health-care providers interested in developing successful interdisciplinary collaborative mental health-care programs. The conceptual framework presented here should be considered a starting point for further development.

Conceptual Framework

Figure 1 presents the conceptual framework that emerged from this analysis. The meaning of each factor within the framework is detailed in Table 1.

The framework is portrayed as a series of concentric rings that operate at three levels to determine: first, the broadest or global level, which affects all programs; second, the local level that affects team characteristics within a particular local context; and third, individual characteristics within a particular team. As we move from the outer to the inner ring,

Figure 1

Factors that Affect the Mix of Health Human Resources and Quality of Collaboration in Interdisciplinary Primary Mental Health-Care Delivery

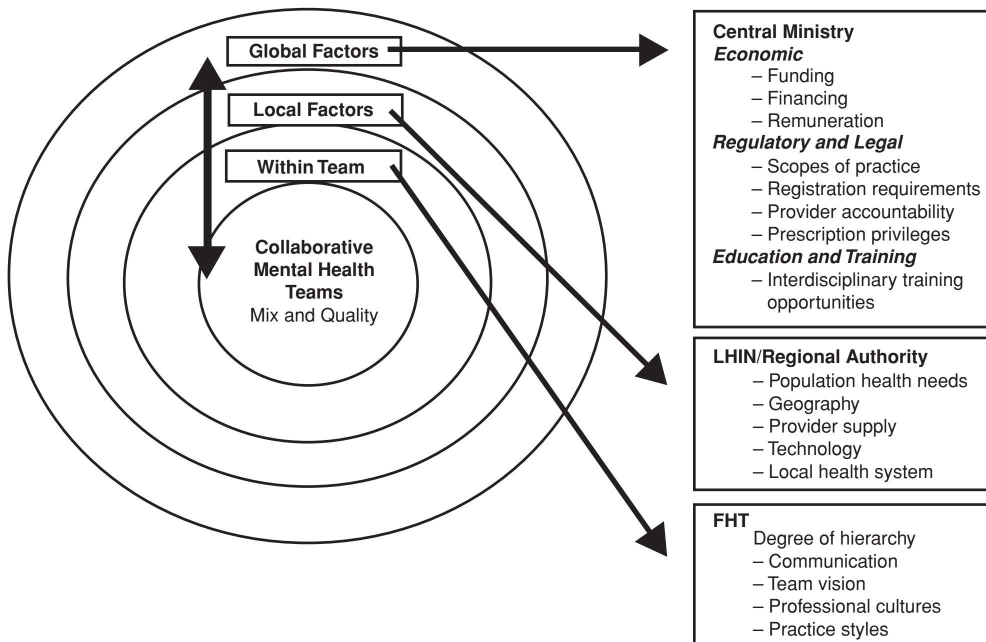

TABLE 1
Meaning of the Various Contextual Factors

Global Factors	*Factors that Operate Across all Programs*
Economic Factors	
Funding	• stability and level of funding for interdisciplinary collaborative mental health-care delivery
Remuneration	• variation in how providers are paid within and across disciplines • lack of remuneration for non-patient contact activities that promote collaboration within traditional fee-for-service payment
Limits on public payment	• lack of insurance coverage for non-physician providers in the private practice primary care setting
Regulatory and Legal Factors	
Education requirements	• differences in education levels required for professional registration by discipline
Overlapping scopes of practice	• overlapping scopes of practice can cause friction across providers within the team • overlapping scopes of practice can allow substitution of professionals with different training within a team to meet local needs
Prescription privileges	• legal restriction of prescribing rights to physicians can alienate some providers from collaborative care arrangements (e.g., psychologists)
Issues in provider accountability	• compatibility of provider insurance across disciplines • comfort with delegating most responsible provider authority
Education and Training	
Interdisciplinary learning	• opportunities though collaborative care residency placements • teaching within an interdisciplinary environment • team-based learning approaches

Local Factors	*Factors that Apply when Setting up a Program in the Local Context*
Population health needs	• demographic, cultural, and health needs of the local population
Provider supply	• availability of mental health providers of different disciplines who can address population health needs within a collaborative mental health team
Existing local health system	• recognition that the team must fit within the existing mix of services to meet gaps in service delivery, and provide an effective continuum of care across settings
Geography	• recognition of the role of geography (i.e., distance to travel, provider shortages) in developing in-house interdisciplinary collaborative teams
Technology	• opportunities to overcome distance barriers through use of technological infrastructure. For example, through teleconferencing to deliver tele-mental health by remote specialists who are part of the multidisciplinary team

... continued

TABLE 1
(continued)

Within Team Factors	*Factors that Affect Quality of Collaboration Within Teams*
Degree of hierarchy	• the degree to which a traditional hierarchical approach across disciplines is adopted versus a team-based approach where all disciplines are equally valued for their different contributions
Professional cultures and practice styles	• degree to which differences in professional cultures and practice styles are recognized within the team and adjustments made to respect differing needs and expectations
Team vision	• the extent to which there is a team vision, typically with the needs of the patient at the centre of this vision
Communication	• formal and informal methods of communication among team members ranging from: • informal team meetings • case conferencing • joint education sessions • hallway consultations and interactions • regularly scheduled meetings of all team members • use of technology to support communication (e.g., electronic patient management and health records, correspondence by e-mail, etc.)

the scope of influence of factors narrows from the whole province, to a local area, to a particular team. Together the factors determine the mix of mental health human resources and quality of collaboration in a program, as shown in the circle at the centre.

Each level corresponds to a particular level of decision-making authority in the proposed reorganized health-care system in Ontario. The global level corresponds to the central ministry, which is to be the steward of the overall health-care system, the local level corresponds to decision-making at the Local Health Integration Network (LHIN) level, and the within team corresponds to the FHT level. Similar divisions of responsibility between the central ministry, regional authority, and individual service delivery teams exist in other provinces.

The global factors include economic factors such as funding, remuneration, and public payment; legal and regulatory factors, such as standards for professional registration, overlapping scopes of professional practice, and prescribing rights; and opportunities to learn collaborative practice and team-based approaches through education and training. These global factors set the "rules" in terms of how interdisciplinary teams can be established, and also affect the practice style and culture of different health disciplines and their willingness and ability to work together collaboratively. As such they can be expected to operate across all interdisciplinary collaborative programs. They are potentially amenable to change, with leadership at the central ministry level.

The local factors affect a particular program or population being served. From an analytical perspective they can be considered fixed in the short term and so must be taken into account when trying to set up a collaborative care program at the local level.

For example, it is important to consider: the characteristics (demographic, cultural, health status) of the population to be served by the program; how the program will fit within the structure of the existing local health-care system; the local supply and availability of providers with the necessary competencies; and geographic distance to care as well as available useful technologies (e.g., telementalhealth). Ontario's proposed Local Health Integration Networks (LHINs) and regional authorities in other provinces will be important to policy development at this level.

The within-team factors include the degree of hierarchy among team members, the extent to which a team vision exists, communication among team members, and interdisciplinary tensions due to differences in professional culture and practice style. These affect the quality of collaboration in a team.

The large arrow indicates that there are also important interactions among the factors. Remuneration, scope of practice and education, and training at the global level can indirectly affect the within-team factors, such as degree of hierarchy and communication. Interactions can also occur between factors within a level (e.g., effective provider supply at the local level can depend on geographic factors and the technology used to overcome them) or across levels (e.g., even when there is a supply of all the needed providers, programs may be restricted to physicians, because of lack of funding for non-physician providers).

Each factor is discussed more fully in the following sections.

Global Factors

Economic, regulatory and legal, and education and training factors are expected to directly influence the mix of health human resources in delivery teams and to indirectly affect the quality of collaboration within a team in all collaborative care programs in the province.

Economic Factors

Funding. Funding was the most frequently mentioned barrier. Here, funding refers to the ability to pay for non-physician providers, such as nurses, psychologists, and social workers within a primary care setting where physicians are typically paid fee-for-service (FFS) and funded through the Ontario Health Insurance Program (OHIP).

> You can always bill fee-for-service, but you can't find the same funding to support a counselor. (KI 10)

Creative approaches were often adopted to include these providers in collaborative care programs. For example, funding could be diverted from another program in the hospital and justified as a way to ease long waiting lists for outpatient care.

> We'll divert funding from the outpatient department to fund this particular program. I would say almost universally that's what happens. (KI 1)

Alternatively, a collaborative care program could be established as a demonstration research project, which would secure funds for non-physician care providers. The challenge with diverting funds from existing programs or with research-based funding is the stability over the long term. This was an issue for collaborative mental health demonstration projects funded through the primary care transition fund, which officially ended in September 2006.

Remuneration. Provider remuneration affects prospects for collaborative practice in a number of ways. Lack of physician remuneration through OHIP for collaborative activities such as case-conferencing and team meetings that did not involve direct patient contact (Dewa, Hoch and Goering 2001; Craven and Bland 2002) was frequently raised.

> They [physicians] can't bill OHIP for case consultation … They can only bill OHIP when they're eyeball to eyeball with the client…. So if all you're buying is direct service and you're not

> willing to pay for consultation or anything else…. They're not going to feel like they're part of the team. (KI 7)

Differences in remuneration of team members can also create different incentives that can be an obstacle to setting up collaborative teams and lead to different practice styles that affect the quality of collaboration.

> In [city name] I worked with docs who were only fee-for-service. And their two concerns were (i) who is going to pay for the … time? … i.e., when I'm talking with you who is going to be paying me?… So that was particularly challenging when you have a mismatch between a psychiatrist who takes salary and a family doc who is fee-for-service … and (ii) who is going to pay for the space? … if the family doc is running essentially a business … then part of what he needs to be remunerated for … is the space itself. (KI 1)

The fast pace of FFS primary health-care delivery can also represent a cultural challenge for psychiatrists and counselors, who may be accustomed to working in an environment where patient contacts are routinely scheduled well in advance (e.g., weekly, monthly, etc.) (Hall 2005). It can also discourage providers from spending time with patients to discuss time-consuming psychosocial issues.

> Because the way the OHIP system is set up is you bill per unit … So what that does is really encourages folks to push them through and not spend that extra 15 minutes doing the stuff like elaboration of psychosocial issues or something like that. (KI 1)

Moving away from FFS toward roster-based or blended capitation is seen as more supportive of team-based care (Dewa, Hoch and Goering 2001) and can combine the best features of each method of reimbursement. For example, capitation can create incentives to take a team approach to care and improve communication between providers, which are absent in FFS payment, but targeted FFS can avoid the incentive to roster only healthier patients in a capitated system. By blending features of both payment systems, consultative activities can be rewarded and special incentives can be designed to encourage physicians to include more challenging patients.

Limits on Public Payment. Non-physician providers (e.g., psychologists, social workers, and nurses) cannot bill OHIP for services provided in private practice, which means patients must pay out-of-pocket for their services. As one of our informants noted,

> Psychologists are not in the equation because they're not in OHIP. (KI 4)

This can effectively exclude non-physician providers from collaborative care models (in the absence of creative funding arrangements) and even discourage referrals to these providers by physicians, unless the patient has adequate private coverage for their services.

Regulatory and Legal Factors

Regulatory and legal (accountability) factors were a second set of global factors. In Ontario, the *Regulated Health Professions Act* (RHPA) regulates the activities of 23 health professions, including physicians, nurses, nurse practitioners, and psychologists (Health Professions Regulatory Advisory Council 2006). Social workers are subject to different legislation as a self-regulating profession. Similar regulatory packages exist in other provinces, most notably British Columbia and Alberta. Regulatory issues raised for collaborative practice included differences in requirement for professional registration across provider groups, overlapping scopes of professional practice, prescription privileges and accountability within teams of multiple care providers.

Prescription Privileges. Restrictions on prescribing privileges for psychologists and nurse practitioners limit the scope of activities these providers can bring

to the collaborative care team. Psychologists could support family physicians with more complex cases where there is a need for ongoing psychological therapy in addition to treatment with medication. Nurse practitioners could provide support to a busy primary care practice by monitoring medication; however, there are virtually no medications for mental illness that they are legally allowed to prescribe. This can create tensions and limit the ability to allocate activities like medication-monitoring among team members.

> Nurse practitioners have a lot more autonomy in medical terms than social workers have in social work terms … the problem with being non-medical is that you're moving further away from the psychiatrist being able to provide advice to someone who can do things like administer medication.… there's a restrictive number of medications they [nurse practitioners] can prescribe. And there's only one medication of all the medications for nurse practitioners that resembles a psychiatric drug, and that's lorazepam…. No antidepressants. No anti-psychotic. There's no medication for the side effects of some of these medications. (KI 1)

Scopes of Practice. Overlapping scopes of practice enabled through the RHPA can be seen as (i) enhancing the ability to establish collaborative care teams by allowing substitution of available local providers to perform certain activities, and (ii) potentially detracting from the quality of collaboration in the team by creating friction among team members over boundary issues (Hall 2005). Some may feel underutilized, others overutilized; either situation can lead to a tendency for providers to withdraw from full participation in the team (ibid.).

> Part of the problem too is that there is some overlap between what we [psychologists] provide and other professions … Mental health counselling is potentially in everybody's scope of practice.… But there's a distinction between counselling and therapy. Counselling … is more educational ... more the provision of support. It is not treatment. It's psychotherapy, which is a form of treatment and requires a different knowledge base; a different set of skills … Psychotherapy is not a restricted activity. It is … in essence an unregulated activity except when it is provided by a practitioner who happens to be regulated. (KI 3).

In practice, these issues have been worked out in existing programs. This may be driven more by necessity than by an ideal solution. For example, where providers are in short supply, there is a kind of creeping increase in scope of practice for available providers.

> …in northern Ontario for instance … they [nurses] tend to take on more … their threshold for involving a physician is probably higher just because the physicians aren't around than it would be in southern Ontario. (KI 1)

Education Requirements for Registration. The RHPA requires that a psychologist complete doctoral training in order to be registered. For social workers a master's degree is the requirement for registration. With higher educational requirements and a different set of skills, such as psychological testing and research skills, psychologists are often paid more than social workers and nurses. Many informants suggested that the fact that psychologists are more expensive than social workers or nurses is the most important reason that they are generally not included in collaborative care models.

> … psychologists … among those who will provide mental health care … are probably the highest paid except for the physicians. (KI 3)

> …they get a regulated professional in a nurse or a social worker at a cheaper rate than a regulated psychologist.… psychologists are generally more expensive. (KI 11)

Provider Accountability. Under the RHPA there are 13 "controlled acts" which can only be performed

by certain regulated health professionals; 12 of these can be performed by a physician or may be delegated when appropriate to others. When a controlled act is delegated, the responsibility remains with the physician who authorized it (College of Physicians and Surgeons of Ontario 2004):

> … the constant concern of physicians is who is the most responsible physician … So in the shared care context, the reason why you see it's physician to physician is because the psychiatrist [and family doctor] can negotiate between the two of them who is kind of the most responsible at any one time … although that's blurry at the best of times. But when you bring in a social worker…[the psychiatrist] end[s] up carrying the responsibility for that, not only for that patient but for what that social worker does in certain regards …You're making an even more complex relationship in terms of the accountabilities. (KI 1)

Having to work out legal responsibility between physician and non-physician providers can be a challenge to interdisciplinary collaboration. Informants suggested that policymakers looking to advance interdisciplinary collaborative care need to work out the legal framework for responsibility for patient care and liability issues when providers are covered under different malpractice insurance schemes.

> if the remuneration thing and the medical-legal concerns are there … physicians being as busy as they are, it's just not worth the bother to go ahead and try and work through those issues. Now it's not to say that they're not "work-throughable." But again, who is going to take care of the patients as they're [physicians] taking the time to work through these things. And who is going to pay them for the time it's going to take to run around doing these more structural, organizational, administrative type things? (KI 1)

Education and Training

There is an extensive literature on the importance of professional education and exposure to collaborative models during training (See Oandasan and Barker 2005; Hall and Weaver 2001; Banks and Janke 1998; Craven and Bland 2002, ch. 7; McVicar *et al.* 2005). Our informants viewed interdisciplinary education as critical if new graduates are to participate in collaborative care models. Continuing education can similarly expose existing providers to collaborative modes of health-care delivery.

> the barriers are principally education…. how we pay for things…. and the enculturation process that takes place on the way to becoming a profession. (KI 2)

A respondent described the indirect effect of education on quality of collaboration within a team:

> … from my own experience, it's been the fact that we've had the influx of … some quite progressive psychiatrists come to this area … that has helped a lot…. and these psychiatrists have been trained in a different style, a style of collaboration…. In other ways of interacting with people and interacting with other practitioners and also in … just the way they have been taught … in collaborative care models … it's more of a collegial relationship that is emerging versus a sort of top-down relationship. (KI 5)

Local Contextual Factors

At the local level, population health needs, characteristics of the local health system, the supply of providers, and the role of geography and technology determine the mix of providers in a collaborative mental health-care program.

Population Health Needs

The optimal mix of mental health human resources depends on the health needs of the population served by the program and on existing services in the area. Demographic factors, such as age, gender, culture, and health needs of the population must be considered.

Local Health System

Existing services in the local area may present gaps in service use and potential opportunities to use existing resources more effectively. It is important that collaborative care programs not be viewed as drawing resources away from existing services.

> The idea of having psychiatric backup is great, but what has made me very angry about that … is that as soon as the collaborative mental health thing was instituted … guess what they did? They pulled the social workers; they pulled the best of them out and put them into selected family doctors' offices thereby making them unavailable to me and the fee-for-service docs to utilize. (KI 9)

Provider Supply

The local supply of available providers is critical in determining the mix of professionals in a collaborative care model. Although it is difficult to obtain comparable estimates of health human resource supply by region in Ontario (Pitblado and Pong 1999; Canadian Institute for Health Information 2004), earlier work suggests that in areas where there are severe shortages of psychiatrists, there may be non-physician mental health specialists, such as psychologists and social workers who could provide backup to family physicians (Mulvale and Bourgeault 2005).

Geography

The effective provider supply can also depend to a great extent on geography and available technology to overcome geographic obstacles to accessing specialty care. In an urban setting, for example:

> …we have all the secondary and tertiary resources fairly close to hand…. and distances are not nearly as great for an individual to come to an appointment or to do a home visit or an outreach visit. And I think again if we were in a rural practice, we'd be doing a lot more treatment by phone. (KI 10)

A particular issue for rural collaborative care programs is the vulnerability of a specialist leaving the area:

> … it was an excellent program which had to really be put on hold when [the psychiatrist] left … there was nobody either with the qualifications or interest to take over the program … [as a result] we saw an upswing in pressure on those beds and even pressure on our outpatient service. (KI 16).

Technology

In many cases, shortages of psychiatrists in rural areas and the distance needed to travel to care in remote regions have been overcome through "at-a-distance programs." These include telepsychiatry programs which combine teleconferencing with periodic fly-in/drive-in services of psychiatrists (Ontario Psychiatric Outreach Programs 2005; Monier-Williams 2006), and the Ontario Collaborative Care Mentoring Program, which enables family physicians to consult with psychiatrists and physician psychotherapists in other parts of the province (Rockman *et al.* 2004). These at-a-distance programs require appropriate technological infrastructure and alternate funding to support their operation.

Within-Team Factors Affecting Quality of Collaboration

The quality of collaboration within a team depends directly on the degree of hierarchy, differences in professional cultures and practice styles, effective communication, and a vision for teamwork centred on patient needs.

Degree of Hierarchy

The traditional hierarchical structure within medicine was seen as an important barrier to effective collaboration. Physicians are often trained to take a leadership role and may perceive a loss of autonomy when working in a team environment (Craven and Bland 2002; Hall 2005). This is reinforced by legal accountabilities, which may make physicians wary of delegating authority to other team members.

> I think for most doctors, they would not, well some doctors won't give it [decision-making

> authority] to anybody. I think they would certainly want to make sure it was somebody that they knew and knew well, and really trusted. (KI 7)

Moving away from this hierarchy to more peer-to-peer collaboration was seen as critical:

> one of the issues in collaboration is [whether] it [is] peer to peer or is it some kind of a hierarchical thing? Well it's only going to work if it's peer to peer. (KI 2)

Two respondents pointed to changes that are beginning to move toward a less hierarchical structure when working in interdisciplinary teams.

> If you have a psychiatrist come in and she or he is a collegial person who values the disciplines and you have strong nurses, then you have a really good collegial give and take. If you have somebody who comes in with a slightly more patriarchal view, then you shift back to the older, more traditional kinds of models. (KI 8)

> … there have been some breakthroughs in the last couple of years in people being able to actually work in teams, number one … I've seen a lot more autonomy in how I practice in the community…. Some of the decision-making now is coming from a different discipline…. It's now happening with the other disciplines we work with. (KI 5)

Professional Cultures and Practice Styles

Respondents indicated that professionals must understand each others' roles and practice styles in order to develop a culture of collaboration within the team. Disciplines must be recognized for their different strengths and approaches.

> If you have psychology you tend to have much more of an individual look. Your social worker tends to have much more of a systemic family, broader-based community look. [The] psychiatrist brings the medical piece both as a doctor and with a specific talented psychiatric level. (KI 7)

Regulatory issues can affect understanding of these cultural differences. For example, overlapping scopes-of-practice can create tensions across provider groups and regulations may reinforce cultural differences with respect to treatment approaches.

> Psychologists are very anti-medication … [it's] a reflection of their inability to prescribe. Unless you have good working relationship, where they're coming from is not the same. (KI 4)

Communication

Without an effective strategy for communication among team members, there may be interdisciplinary providers on the team, but not much collaboration between them.

> … what we discovered was that in some places it's [collaboration] not being practised at all. People are kind of … lone professionals and there's kind of a loose connection with the team. And in other areas you've got whole issues of power dynamics that need to be addressed … the whole issue of people feeling that they had a voice and a say in these discussions. (KI 11)

Communication needs to be tailored to what works best in each team and may encompass formal and informal team meetings, education sessions, and electronic health records among other strategies.

Team Vision

What is seen by one respondent as a critical way to overcome these differences is to have a strong vision of what the team is trying to accomplish, which is the placement of the patient's needs at the centre of that vision.

> I think if you have a respectful focus and if you have a vision in terms of what you're trying to do, people either organize around enemies or they organize around a vision. Vision is much more difficult. (KI 7)

Concluding Comments

A large number of interrelated factors, which operate at the global, local, and within-team levels, influence the development of collaborative mental health-care programs. These factors explain the limited number of programs to date in Ontario and the mix of particular disciplines (e.g., the limited role of psychology), within existing programs. We present a conceptual framework that helps to organize this wide array of factors that will be useful not only in helping direct future research, but also important in framing policy.

Future research should test the applicability of the framework to other jurisdictions and to other health conditions. Examples include investigating the framework's relevance to collaborative mental health initiatives in other provinces, to interdisciplinary primary care models more generally, such as Ontario's developing FHTs (see Bourgeault and Mulvale 2006), and to collaborative maternity-care initiatives emanating from the recently completed Multidisciplinary Collaborative Primary Maternity Care Project. Such applications will also help to refine the framework and provide a better understanding of the linkages between the factors we have identified. Understanding these linkages is necessary if we are to successfully analyze health human resource use in collaborative care models and design programs that foster effective collaboration.

The framework also helps to identify the appropriate level of decision-making at which barriers need to be addressed. Global factors will be best addressed at the level of the central ministry. Local level and within-team factors will be best addressed at the LHIN and FHT levels respectively in Ontario, or regional authority and delivery team levels in other provinces. It may require strong political leadership to address cross-jurisdictional level factors such as education, training, and regulatory and legal factors. Federal-provincial accords have proven to be fruitful opportunities to address cross-jurisdictional issues and with the leadership of a Canadian Mental Health Commission (Health Canada 2005; Kirby 2005), there may be an important opportunity to shift national attention to these issues.

This research has been presented to a number of conferences and think-tanks, and informally to policymakers at the provincial level in Ontario. Informal feedback confirms the importance of the identified factors to providers and to policymakers working to develop interdisciplinary models of mental health delivery in the primary health-care setting. For example, in trying to prioritize specific factors for study in the next stages of research, a decisionmaker responded "We want all of it!"

Future research as suggested above, will enhance the usefulness of the framework for policymakers interested in setting up a policy context that promotes adoption of interdisiciplinary, collaborative models of mental health service delivery.

Notes

Funding for this research was provided in part through a CIHR New Investigator Award to Ivy Lynn Bourgeault and in part through an Ontario Training Centre in Health Services and Policy Research stipend to Gillian Mulvale. Helpful feedback on previous versions of this paper were also provided by Jerry Hurley, Paula Goering, Julia Abelson, and various attendees at two Canadian collaborative mental health-care conferences.

[1]Note that nurse practitioners have only limited prescribing authority in this area. They are able to prescribe anti-anxiety medications, but not antidepressants nor antipsychotics.

[2]Such funding was used to establish the Canadian Collaborative Mental Health Initiative (CCMHI) in March 2004, with the goal of enhancing mental health services in primary health care through furthering research, developing implementation toolkits for patients, providers and policymakers, and developing a national charter for collaborative mental health care.

[3]For a listing of policy documents reviewed see Appendix B of Mulvale (2006).

[4]Note that these interviews were carried out as part of a larger case study that looked at the role of gender and location in determining professional roles in primary, maternity, and mental health care. The sampling strategy for the mental health component of the larger study was modified to include providers with experience in collaborative mental health care in various settings to inform this analysis.

[5]A coding scheme was used to preserve anonymity of the key informants. They are identified as (KI n), where n refers to the number of the key informant. For a list of the characteristics of the key informants in terms of their professional disciplines or occupations, their work settings, work roles and experience with collaborative mental health care, see Appendix C of Mulvale (2006).

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