Structuring Communication Relationships for Interprofessional Teamwork (SCRIPT)

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Main Messages

• The SCRIPT Programme is the first multi-faculty and multi-institution research grant undertaken at the Toronto Academic Health Sciences Network.

• Research is being undertaken in three clinical settings: Primary Care, General Internal Medicine, and Rehabilitation Care.

• SCRIPT research targets change at multiple organizational levels with the aim of creating a cultural shift in the way that health professionals learn to collaborate while in clinical environments.

• SCRIPT findings to date demonstrate that interprofessional communication in each of the three clinical settings is unique with specific barriers and facilitators. Solutions to enhance communication in one setting may not hold true for another.

• There is ample opportunity for further research and funding in this area of study.
Executive Summary

The SCRIPT Programme “Structuring Communication Relationships for Interprofessional Teamwork”, has recently completed the second of its three-year funding cycle. Supported by Health Canada as a part of its Interprofessional Education for Collaborative Patient-Centred Practice (IECPCP) initiative, the SCRIPT Programme is the first multi-faculty, multi-institution partnership research grant undertaken at the Toronto Academic Health Sciences Network (TAHSN).

This report will outline the SCRIPT Programme’s project summaries, key findings to-date, and some interim learnings and recommendations that will influence the future of interprofessional collaboration (IPC) and interprofessional education (IPE) research.

Through qualitative and quantitative methods, SCRIPT is targeting changes at multiple organizational levels in order to create a cultural shift in the way that health professionals learn to collaborate.

Research is being undertaken in three clinical settings: Primary Care, General Internal Medicine (GIM), and Rehabilitation Care. In each setting, a needs assessment of IPC will be undertaken, an IPE intervention will be introduced, and follow-up observations will ensue. In the case of the GIM setting, a randomized controlled trial (RCT) of the IPE intervention will also be carried out.

The SCRIPT Team is extremely energized and enthused with the process and findings realized so far.

To date, the needs assessments in Primary Care and GIM have been completed, and the needs assessment for Rehabilitation Care is underway. At the same time, the Primary Care and GIM teams are in the midst of implementing their interventions and analyzing their preliminary data.
The teams’ findings, so far, have been very revealing: IPC is unique in each setting, distinct themes arise from each settings’ IPC processes, and each setting has specific facilitators and barriers to IPC and to implementing IPE interventions.

**Recommendations for moving forward with IPC research are the following:**

- Researchers need to gain a full understanding of the state of collaboration within a specific clinical setting and to contextually derive an intervention specific to what is found.

- The research ethics application process for multi-site studies across TAHSN would benefit from being more comprehensively integrated between institutions.

- There is great opportunity for further IPC/IPE research within the clinical domain. However, further inquiry and funding to support this inquiry is warranted.

The SCRIPT Team is extremely energized and enthused with the process and findings realized so far. The SCRIPT Programme has proven to be an effective driver in engaging people to think about IPE, IPC, and related research. With one year left in its mandate, the SCRIPT Team is now looking forward to formulating a vision and strategy for future research in IPC/IPE and to seeing the impact of IPC/IPE within University of Toronto and TAHSN.
The Romanow Commission Report and the Federal/Provincial/Territorial 2003 First Ministers’ Accord speak to the importance of collaborative practice to ensure improved health care for Canadians, and both reports identified changes in health professional education as key to health system renewal.1,2 A 2004 literature review and environmental scan commissioned by Health Canada for the Interprofessional Education for Collaborative Patient-Centred Practice Initiative (IECPCP) reported that there is evidence that collaborative practice improves patient outcomes in specific populations.3 However, the processes involved in teaching and practicing collaboratively are poorly articulated in the literature, and studies that can develop theory and models related to IECPCP and build an evidence base for educational decisions in this domain are needed. The SCRIPT Programme, “Structuring Communication Relationships for Interprofessional Teamwork”, seeks both to advance the evidence for IECPCP and to achieve sustainable transformation in the conduct, learning and evaluation of interprofessional teamwork in the Toronto Academic Health Sciences Network (TAHSN).

GOAL

The SCRIPT Programme’s goal is to transform clinical teaching units across TAHSN into interprofessional, collaborative, patient-centred practice settings. The Programme’s intent is to provide for constructive environments for teaching students collaborative practice at the pre-licensure level, to model best practices of interprofessional collaboration (IPC) at the post-licensure level and to evaluate the impact of collaboration on patients, providers, and learners.

SETTING

The SCRIPT Programme involves three clinical settings at sites affiliated with TAHSN, each representing key paths along which patients travel while receiving care: Primary Care, General Internal Medicine (GIM), and Rehabilitation Care.

OBJECTIVES

The objectives of the SCRIPT Programme are to:

1. Assess Needs: Conduct needs assessments in Primary Care, GIM,
and Rehabilitation Care to determine the current state of IPC.

2. **Develop Intervention Elements:**
Design innovative communication tools and professional development programmes, tailored to each study setting, to improve IPC.

3. **Implement Innovations:**
Implement communication tools and professional development programs, undertake formative evaluations in primary care, GIM, and rehabilitation care, and complete a summative evaluation in GIM.

4. **Transform Culture:**
Motivate a change in culture within the University of Toronto and TAHSN by working with senior administrators to prioritize interprofessional patient-centred care within their organizations.

5. **Sustain Change:**
Prepare to implement successful SCRIPT interventions across the university and TAHSN, produce structured learning opportunities for pre-licensure training by deriving educational collaboration “cases” (based on the qualitative research) for integration within the curricula, and refine evaluation tools for interprofessional collaboration for post-graduate evaluation for all professions.

**SIGNIFICANCE**

The SCRIPT Programme, working within the largest health and social care provider educational institution in the country, is targeting changes at multiple organizational levels to create a cultural shift in the way health professionals learn to collaborate. It is expected that the SCRIPT Programme will lay the groundwork for sustainable change in improving IPC within TAHSN.

**PROGRESS**

The SCRIPT Programme is funded by Health Canada’s IECPCP initiative. It is the first multi-faculty, multi-institution partnership research grant undertaken at TAHSN. Having completed the second of its three years, the Programme has revealed much about the state of IPC within TAHSN sites, the barriers to - and the facilitators of implementing IPE within various sites and clinical settings, and the complexities of navigating the administrative structures within TAHSN institutions.

These learnings, and the Programme’s related project updates, are outlined in this report.
The primary care arm of the SCRIPT Programme focuses on IPC in urban academic family practice clinics. The study entails an observational needs assessment of interprofessional communication and collaboration among all staff in the clinics (both clinical and clerical) and the implementation of an IPC intervention in one family practice clinic.

The needs assessment involved over 130 hours of ethnographic observations, interviews, clinician shadowing and focus groups in three family practice clinics within TAHSN. The assessment also included an additional eight hours of interviews with staff at a fourth clinic. The study’s methodology was unique, given its use of ethnography to study a primary care setting. Researchers observed both verbal and nonverbal communication (e.g. body language, written communication) that occurred either intraprofessionally or interprofessionally between two or more staff members.

The findings of the needs assessment prompted the Primary Care Team to devise a professional development program focused on change management and team development processes including: enhancing the concept of team cohesiveness, building relationships and increasing understanding of each other’s roles to enhance teamwork (including best communication strategies and behaviours).

The professional development programme, comprised of modules totalling ten hours, involved all members of the family practice clinic (clinical and clerical staff) and included interactive activities that focused on goal setting, efforts to reflect on process, and getting to know each other — all through an appreciative inquiry lens.4, 5

The Primary Care Research Team is in the midst of their intervention process while conducting observations and informal interviews with clinic staff.

This new era of interprofessional primary care teams... provides us with an immense opportunity to train a new generation of health professionals to work collaboratively.
Further follow-up observations and interviews are set for the summer of 2007, with the final, formative evaluation of the intervention due in the fall.

The SCRIPT Primary Care study is happening at a very important time for TAHSN family practice clinics. In 2006, it was decided that TAHSN family practice clinics would apply to become Family Health Teams (FHT)—a new designation from the Ministry of Health and Long-term Care as part of its primary care reform initiatives. FHTs promise a new way of primary care practice by incorporating a myriad of health professionals into family practice clinics to share in providing best care for the clinic’s roster of patients.

This new era of interprofessional primary care teams, combined with the fact that TAHSN family practice clinics train the highest number of family medicine residents in this country, provides us with an immense opportunity to train a new generation of health professionals to work collaboratively. However, before training can occur, the environment in which these future learners will be role-modeled and taught must be conducive to collaborative practice. This is why the SCRIPT Primary Care Project is so timely: it has provided a methodology to study the extent of collaboration within the family practice units and its pilot intervention has the potential to inform the transformation process of other TAHSN academic FHTs as they adopt collaborative patient-centred care principles into practice.

Preliminary findings of the SCRIPT Primary Care Project have been presented to the Executive Committee and Faculty of the Department of Family and Community Medicine (DFCM) at the University of Toronto. The development of methods that assist each of the family practice clinics in their self-assessment of collaboration, and how to engage in best communication to enhance teamwork, was shown. Next steps will include working with the researchers at the DFCM to identify how one might mount a larger intervention across all of the family practice clinics using a similar but expanded methodology and intervention.

Through this process, the learnings of the SCRIPT Primary Care Project will be embedded within sustainability initiatives. A toolkit is being developed to capture a description of the methods used to assess and help address communication gaps and to detail the professional development intervention used within the pilot. This toolkit will be presented to the DFCM.

Additional dissemination of the SCRIPT Primary Care Study has also been presented at national and North American conferences (see Appendix A for conference proceedings), and the SCRIPT Team is preparing papers for peer-reviewed publication aimed at the primary care audience in Canada.
The General Internal Medicine (GIM) arm of the SCRIPT Programme focuses on interprofessional communications in a GIM context.

There are three phases to this project:

• Phase I, qualitative data collection and the development of an IPC intervention,
• Phase II, a pilot test of the intervention, and
• Phase III, a cluster randomized controlled trial and evaluation of the intervention.

The SCRIPT GIM Team has completed Phase I. Over 200 hours of qualitative data were collected in the GIM wards of three TAHSN hospitals through non-participant ethnographic observations of ward activities and physician and nursing rounds, semi-structured interviews, and clinician shadowing. Analyses explored existing patterns of interprofessional collaboration in GIM and supported the development of a hospital-based staff communication intervention designed to improve interprofessional collaboration and communication as a means to enhance patient-centred care.

Phase II, a pilot test of the IPC intervention, is underway with a piloting of a four-step collaborative communication protocol. This protocol was devised to be used by staff during unstructured, informal, face-to-face interactions with members of different professional groups. It involves the identification of one’s name and role, statement of the issue or patient-related matter under discussion, and the solicitation of interprofessional feedback. The intervention is designed to shift the culture of GIM towards interprofessional collaboration.

Success of the intervention will be evaluated with the following outcome measures:

1) Patient readmission rates
2) Patient lengths of stay
3) Staff self-report survey measures of collaboration
4) Patient satisfaction
5) Levels of paging-device activity, and
6) Use of optimal prescription drug therapy

As well, non-participant observation, clinician interview, and shadow data are being collected at each hospital to
inform our understanding of possible differences in the uptake and impact of the intervention across the participating hospitals and among different professional groups. The success of the intervention may be demonstrated by its sustainability in the post-intervention period.

**The Team has been actively engaging with many levels of TAHSN administration and clinical staff to promote and garner support.**

In addition to the intervention, the SCRIPT GIM Team has developed an interprofessional survey to evaluate perceptions of collaboration. This new tool is an adaptation of the CMSS (Collaboration among Medical Staff Subscale) subscale of the Nurses' Opinion Questionnaire. While the CMSS measures nurse-physician collaboration, this new instrument will survey all professions in general internal medicine and their support staff (clerical staff, etc.). Unlike surveys that base their queries on a single professional group (e.g., nurses), SCRIPT GIM Team’s adapted version of the CMSS presents a common set of questions using phrasings and vocabulary that are interpretable by respondents of all professional groups. The survey’s administration and evaluation are underway.

Later this year, the GIM Team will initiate a cluster randomized controlled trial of the intervention (Phase III). Cluster randomization is a contemporary method of randomization for "place-based" trials which attempts to reduce cross-contamination between participants assigned to different groups: intervention and control. Multiple hospital sites will be invited to participate in this phase, where within each site, two GIM teaching teams and their full staff will be randomly selected to enact the intervention as a team. This method of stratification will balance common factors that could induce unusual interdependence among intervention participants.

The GIM Research Team has been actively engaging with many levels of TAHSN administration and clinical staff to promote and garner support for the SCRIPT Programme. GIM researchers have also been presenting the SCRIPT GIM methodology and findings at national and North American conferences (see Appendix A for conference proceedings), and are preparing papers for peer-reviewed publication.
The SCRIPT Programme Rehabilitation Care Team is investigating the state of IPC in rehabilitation care. This study encompasses an observational needs assessment of IPC in three inpatient rehabilitation care settings, and a pilot study of an IPC intervention in one rehabilitation setting.

The Rehabilitation Care Team began in early 2007 and is currently undertaking a needs assessment. To date, 100 hours of ethnographic observations have been completed across all three settings. The research team has observed rehabilitation teams in daily practice on their units, in interprofessional team meetings, as well as in family meetings. The researchers have shadowed selected team members and have interviewed key informants from each team.

While the observations, shadowing, and interviews were consistent with the Primary Care and GIM arms of the SCRIPT Research Programme, observing family meetings was unique to rehabilitation. Observing the family meetings has allowed SCRIPT researchers to observe how rehabilitation teams work collaboratively to both develop a united message on the progress of patient care and issues relevant to discharge, so as to determine how these messages are delivered to patients’ families.

This particular addition to the methodology provides a unique opportunity to observe the interplay of interprofessional collaboration in the delivery of care and the communications used to describe patient care to families.

The analysis of the research data is underway and the pilot intervention will roll out in the fall of 2007.

As well, the SCRIPT Rehabilitation Team has held their first advisory committee meeting. In attendance were vice-presidents, managers, and clinicians who provided feedback on the process of the SCRIPT rehabilitation research and gave their overwhelming support and guidance to the researchers of this project.
The Rehabilitation Care Team has also begun its findings dissemination by giving general SCRIPT presentations around the University of Toronto and TAHSN, as well as having one abstract accepted for a poster presentation at the Association of American Medical Colleges Research in Medical Education Conference in Washington, D.C. in November, 2007. A second conference abstract was submitted for an October 2007 presentation at an international IPC conference. Currently, the Rehabilitation Research Team is preparing two articles that will be submitted for publication this summer.

Observing family meetings... provides a unique opportunity to observe the interplay of interprofessional collaboration in the delivery of care and the communications used.
In keeping with the concepts of interprofessional collaboration, it has been important for each team of the SCRIPT Programme to focus on creating its own identity, identifying its own role and contribution to the project, as well as developing its own internal teamwork processes. Now, after the second year of this Programme, opportunities for sharing findings across the teams or arms of the project are emerging. Renewed energy to find commonalities and differences in communication and interprofessional collaboration among each practice setting is being sparked. Indeed, authentic interdisciplinary collaboration is now occurring among SCRIPT researchers, enhancing the understanding of the collective research findings through the sharing of perspectives from the different research disciplines and different health care professions.

Along with content findings, significant process-related findings have also emerged. These process findings focus on research team development using an inter-faculty, inter-institutional approach. The SCRIPT Team is confident that it will be able to share these findings with Health Canada by the end of the third (and final) year of the programme’s funding.

**PRIMARY CARE**

The SCRIPT Primary Care Team has found that three main themes arose from their IPC observations of family practice clinics:

1. Distinctive approaches to family practice collaboration exist.
2. The time available to health professionals and staff influences the type of collaboration and/or its possibilities for practice.
3. The clinic’s physical layout or space impacts on family practice collaboration.

**Family Practice Collaboration**

Observational and interview data indicated that three distinctive approaches to family practice collaboration could be identified:

1. **A siloed approach** where participants remarked that they did not function as one team but rather communicated as smaller, semi-autonomous sub-teams;

2. **A linear approach** where participants worked together with one individual acting as a key connector who helped by linking with other team members;
An interactive approach in which participants worked together in a highly collaborative and inclusive manner.

Although these models characterize a dominant trend in how teams collaborate, there was some variability between teams and their collaborative style. For example, within any given site where smaller sub-teams were predominant, there were sub-groups that had often been formed around specific tasks/patient populations, where an interactive/integrated mode of communication predominated.

Time and Space

Time and space acted as both barriers and facilitators to interprofessional communication. Time refers to meeting times, both informal and formal, as well as to the health professional’s work status, part-time, full-time, or casual. Sites where meeting times were built into the schedule and were inclusive of all team members provided staff with the opportunity to discuss goals, issues and concerns with each other. For these sites, the established meeting time provided opportunity to develop relationships with existing staff and to forge relationships with new staff. Other sites, however, experienced interprofessional communication on an as-needed basis, without structured meeting times. Interviews of these staff revealed different opinions regarding preferred methods of communication: structured versus unstructured communication, or informal versus formalized meeting times. It was also noted that individual workspaces of health professionals and staff were small and dispersed. There was minimal space for staff members to communicate interprofessionally on an informal or formal basis.

These SCRIPT Primary Care interim findings are meant to provide a rich description of the models of communication observed. They are not intended to provide a value on which process is better over another. The opportunities for future research in this area are extremely promising.

GENERAL INTERNAL MEDICINE

Based on qualitative data collection and analysis, findings show that the GIM context requires a unique approach to implementing an IPE intervention. Key findings about GIM include:

1. Team structure within GIM is fluid and dynamic—not fixed and stable.
2. There is “no time to think, no time to talk” in the GIM culture; workplace-based curricula needs to be adaptive, flexible and purposeful.
3. Structured meetings are the main mechanism for IPC in GIM—yet these meetings are fully subscribed with no further room to intervene.
4. Intervention design for GIM therefore needs to consider informal opportunistic communication and collaboration outside of structured meetings.
5. While all participants agree that the purpose of interprofessionalism is improved patient care, there was a lack of shared understanding on how to collaborate.

Preliminary findings from the interprofessional survey reveal that more than half of the respondents felt that patient care is not adequately discussed between the respondent’s own occupational group and at least one of the other two occupational groups. In addition, the analysis reveals that, as a group, members of the nursing staff are most likely to agree that important information is always passed on between nurses and the other two groups. Medical staff and allied health staff are less likely to agree with this statement.

Overall, the prevailing climate in GIM is collegial. However, four barriers to deeper collaboration emerged from the data. They have been labelled by the SCRIPT GIM Team as:

1. **Name Game**: The tactics people use to conceal that they do not know each other’s names. Reasons why professionals use these tactics are varied, e.g., embarrassment from not being able to remember and retrieve names of colleagues, and contextual factors such as the large staff size on GIM wards, rapid turnover of its staff, and regular medical team rotation. The GIM Research Team concludes that it is unrealistic to expect GIM staff to remember names in this context.

2. **Role Play**: The tactics used to conceal a lack of in-depth knowledge of others’ scopes of practice and their routines.

3. **Free Speech**: The presumption that the GIM culture is democratic and each staff member is equally and comfortably free to speak out in disagreement is faulty. Nonetheless, the competitive, hierarchical and medicine-dominated culture of GIM discourages the contribution from both student and novice practitioners or junior staff and allied health and nursing staff.

4. **Tunnel Vision**: Refers to the dominance of uni-professional over interprofessional perspectives in structured and unstructured discourse and interactions.

**REHABILITATION CARE**

A preliminary analysis of the rehabilitation care data suggests that, first and foremost, examples of IPC are abundant in the observed rehabilitation care settings. Observations show that IPC is related to the clinical, organizational and cultural features of each team. It is hoped that a broader analysis of the data will reveal specific details of these features to inform a model of IPC that can be transferred, adapted and operated in other healthcare environments.
Primary Care, GIM, and Rehabilitation Care are the key paths on which patients travel while receiving care. Each care setting is unique, and the SCRIPT research to date reveals that each setting provides its own opportunities and challenges to facilitating IPC and to implementing IPE interventions. These interim findings have been rich, and as the SCRIPT Programme heads into its third year, a focus will be made on theorizing the distinctions between the studied health care settings and on synthesizing the findings into meaningful comparisons.

It is still too early to make conclusions based on the research output of the SCRIPT Programme’s work. Nevertheless, much has been learned from this project that can benefit future research:

1. **Researchers need to gain a full understanding of the state of collaboration within a specific clinical setting and to contextually derive an intervention specific to what is found.**

   Interprofessional collaboration looks different within the Primary Care, GIM, and Rehabilitation Care settings. There is no such thing as a “one size fits all” IPC intervention. Identifying the themes that arise across settings must be understood and it is a wonderful opportunity for further work.

2. **The research ethics application process for multi-site studies across TAHSN would benefit from being more comprehensively integrated between institutions.**

   The nature of the SCRIPT Programme, a multi-institution and multi-faculty study, lent itself to requiring numerous applications for ethical approval: an application to each research site from each of the primary care, GIM and rehabilitation care teams, that are in addition to corresponding applications to the University of Toronto research ethics boards*. The SCRIPT Team found that, in spite of the *TAHSN Harmonized Core Application*, gaining ethics approval for multi-site research was an onerous task requiring over 20 applications.

3. **There is a great opportunity for further research of IPC/IPE within the clinical domain. Further inquiry, and funding to support this inquiry, is warranted.**

   Based on the findings to date, the need for IPC/IPE research is crucial. Over the next year, the SCRIPT Research Team hopes to formulate a vision and a strategy.
for future research in IPC/IPE and the team will outline preeminent issues requiring further research based on the SCRIPT findings.

The SCRIPT Programme has brought together diverse researchers embedded within many different clinical settings. The findings and dialogue shared between the different settings are rich; together, they will provide the potential to advance the literature and scholarship of IPC as well as help work towards effecting change within TAHSN.

* In late 2006 the U of T REB reached an agreement with its affiliated hospitals to change the procedures for research ethics applications that involve the University in only a peripheral capacity. This was a tremendous benefit to SCRIPT and greatly lessened the workload that writing these applications produced.
References


Conference Proceedings

Alliance for Continuing Medical Education 33rd (2008) Annual Conference
January 19-22, 2008, Orlando, Florida

IT'S NOT JUST WHERE YOU WORK, IT'S HOW YOU WORK
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Objectives: The participants will be able to: 1) learn about factors that impede and contribute to interprofessional communication and collaboration; 2) learn from an intervention tool that was created and implemented in this study.

Methods: This presentation will direct a structured small group discussion to assist participants in applying communication strategies to improve interprofessional communication and collaboration using theoretical and applied frameworks.

Results: The presentation will: 1) discuss the needs of clinicians strategizing to improve teamwork 2) disseminate learnings from the development and implementation of a piloted communication toolkit; 3) demonstrate how contributing factors such as time, space interplay for successful collaboration.

The 46th Annual Conference on Research in Medical Education (RIME) 2007
November 2 – 7, 2007, Washington D.C.

INTERPROFESSIONAL COMMUNICATION IN REHABILITATION MEDICINE: RESULTS OF AN EXPLORATORY STUDY FOR THE SCRIPT PROGRAMME
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Purpose: Effective interprofessional collaboration (IPC) has been shown to improve patient care but little evidence exists for methods of fostering IPC in clinical teams. Preparatory to developing a situated tool for encouraging IPC in rehabilitation care, we conducted an ethnographic study of a clinical teaching unit (CTU) in a rehabilitation hospital.

Methods: With appropriate ethical approvals, we conducted 40 hours of observation over four weeks. A trained observer captured the content and process of collaboration and communication through general observations, close shadowing, 22 informal, and 7 formal interviews in a multidisciplinary CTU. Participants included 21 health team professionals, a physiatrist, 20 nurses, unit administrators,
and a community care planner. Data were collected by ethnographic field notes and entered into NVivo qualitative analysis software. These data were coded for themes by the research team.

**Results:** Preliminary analysis reveals that communication around patient-goals provided key points at which to observe IPC on the team. Full integration of all nurses into team activities was inhibited by scheduling and budgetary issues. Finally, despite frequent collaborative encounters, occasional competing priorities were observed between physical and social/cognitive professionals.

**Conclusion:** This research suggests that focusing on patient-centered rather than discipline segregated goals facilitated IPC. While high levels of IPC were observed, gaps between nursing and other team members might be improved by a targeted intervention engaging nurses more in team meetings and co-locating therapeutic work by other professionals to the unit. Greater collaboration between physical and social/cognitive professionals could be promoted by joint delivery of therapy where appropriate.

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**The College of Family Physicians of Canada and the Manitoba College of Family Physicians, Family Medicine Forum 2007**
October 11-13, 2007, Winnipeg, Manitoba

**IT'S NOT JUST WHERE YOU WORK, IT'S HOW YOU WORK: UNDERSTANDING THE ROLE OF SPACE AND PLACE IN THE FAMILY PRACTICE CLINIC**

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Observational research suggests that space and place influence effective interprofessional communication in the family practice setting. Space comprises the structural layout of the clinic, including the availability of public interaction spaces. Place encompasses the sense of belonging in the space and the team, an emotional connection that influences team motivation and relations.

Following a short description of research findings, session participants will work in groups using case studies derived from observational data, to explore strategies for addressing these issues. Attention will be paid to the needs of both clinicians strategizing to improve teamwork within existing clinic spaces, and those positioned to inform design in the current context of space reconfiguration for family health teams.

**Objectives:**
- to describe the influence of space and place
- to introduce relevant concepts from theories of place
- to discuss educational and organizational strategies for overcoming space barriers and creating a sense of belonging
Strengthening the Bond Conference  
May 3-5, 2007, Banff, Alberta  

DESIGN AND EVALUATION OF AN INNOVATIVE PRACTICE INTERVENTION TO FOSTER INTERPROFESSIONAL COLLABORATIVE COMMUNICATION IN GENERAL INTERNAL MEDICINE  
Ann Russell, Merrick Zwarenstein, Lesley Gotlib Conn, Chris Kenaschuk, Karen Lee Miller, Scott Reeves & Lorelei Lingard

This presentation will describe an interesting cluster randomized controlled trial in the general internal medicine (GIM) departments of five Toronto teaching hospitals. This project used real-world data to inform understanding and design of an intervention to improve interprofessional practice in GIM. Over 200 hours of ethnographic observations of the daily activities of health care professionals on the GIM wards and interviews with staff have informed design of an intervention that is currently being piloted at the first of 5 hospitals. Analysis of these qualitative data revealed three common barriers to interprofessional communication and collaboration across hospital sites: (1) lack of interpersonal awareness (e.g., name recognition, etc.); (2) lack of interprofessional awareness (e.g., surface level understanding of scopes and roles of practice, etc.); (3) lack of interprofessional planning for patient centred care (e.g., profession specific decision making, etc.). The pilot intervention design is a simple 4-step "collaborative communication" etiquette which targets interprofessional practice during informal, unstructured, opportunistic encounters between health care providers. Innovative evaluation methods and tools, both quantitative and qualitative, will be reviewed.

The Department of Family and Community Medicine Retreat, University of Toronto  
April 27, 2007, Toronto, Ontario  

IT'S NOT JUST WHERE YOU WORK, IT'S HOW YOU WORK: UNDERSTANDING THE ROLE OF SPACE AND PLACE IN THE FAMILY PRACTICE CLINIC  
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Context and Objective: The Ontario government's transformation of Family Practice Clinics into the Family Health Team model calls for an immediate action to develop and assess models of interprofessional education for collaborative patient-centred practice (IECPCP). Collaborative practice is a key element to consider in the restructuring of healthcare service delivery to Canadians. The SCRIPT Programme seeks to transform hospital Clinical Teaching Units into settings where interprofessional, collaborative patient-centred practice is enacted, learned and evaluated. The goal of this poster presentation is to explore factors that both facilitate and challenge the practice of effective interprofessional communication in primary care settings.
Methods: Ethnographic researchers have conducted 140 hours of observations, interviews and focus groups at 8 family practice clinical teaching units. They have observed and interviewed various members of primary health care teams that include doctors, resident trainees, nurses, administrative staff and associated health care professionals. Data were collected in the form of handwritten field notes and were subsequently entered into Nvivo, a qualitative data analysis software. All data were coded by one researcher and reviewed by three additional members of the primary care research team on a weekly basis.

Results: In the preliminary analysis, the research suggests that time and space influence effective interprofessional communication in the family practice setting. Time allotted for team meetings and staff scheduling impact communication patterns. Space comprises the structural layout of the clinic, including the availability of public interaction spaces. Both time and space interplay with each other to create a sense of belonging to the team. It is an emotional connection that influences team motivation and cohesiveness. The findings of this research will attempt to identify and address the needs of clinicians strategizing to improve teamwork within existing clinic spaces while taking into consideration the issues of time and space in primary care settings.

Canadian Interprofessional Health Collaborative (CIHC) - Inaugural Meeting 2006
November 26 - 28, 2006, Toronto, Ontario

THE SCRIPT PROGRAMME GIM - A CLUSTER RCT TO IMPROVE INTERPROFESSIONAL COLLABORATIVE COMMUNICATION IN GENERAL INTERNAL MEDICINE
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Conference on Research In Medical Education (RIME) 2006
October 27 - November 1, 2006, Seattle, Washington

INTERPROFESSIONAL COMMUNICATION IN GENERAL INTERNAL MEDICINE: RESULTS OF A PILOT STUDY FOR THE SCRIPT PROGRAMME
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Purpose: The goal of this pilot study on interprofessional communication in general internal medicine (GIM) was to explore the existing factors that facilitate and/or function as barriers to effective interprofessional communication and collaboration in health care teams. This poster reports on the preliminary analysis of ethnographic observations collected from two of five urban teaching hospitals participating in a randomized controlled trial to design, implement and evaluate interventions (tools and processes) to improve interprofessional teamwork.

Methods: Ethnographic researchers spent 155 hours over the course of four weeks observing health care teams, including allied health professionals, doctors and medical trainees, nursing staff, patient care managers, and ward administrative staff. Handwritten field notes were collected and transcribed. Reconstructed transcriptions were coded for themes and refined iteratively by the research team.

Results: Preliminary analysis identified three important barriers to interprofessional communication: (1) a lack of understanding of other professions' scopes of practice, (2) the existence of profession-specific silos [i.e., communication and collaboration within professions only], and (3) profession-specific accountability and responsibility. Facilitators of interprofessional communication and collaboration included a variety of communication artifacts (e.g., electronic orders, white boards, etc.) and processes (e.g., interdisciplinary rounds, etc.).

Conclusion: When looking through the lens of interprofessional barriers to communication and collaboration, findings reveal a need to deepen understandings of roles and scopes of practice, and for teamwork to focus on collaborative patient care and discharge planning. Interventions will be designed based on these and other findings from ethnographic observations at the 3 remaining hospitals.

RECOMMENDATIONS FOR "BEST PRACTICES" IN ACCESSING INSTITUTIONS FOR INTERPROFESSIONAL COLLABORATIVE RESEARCH
Jennifer Beales1,9, Ivy Oandasan1,2, Merrick Zwarenstein3,4, Lynne Sinclair5,6, Lesley Gotlib Conn1, Scott Reeves2,7, Lorelei Lingard7,8, Karen-lee Miller1, Zubin Austin9, and Diane Doran6

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Purpose: The manner in which a research team should go about accessing institutions for interprofessional collaborative research remains undocumented and relatively unclear. This poster presents recommendations for 'best practices' in fostering collaborative relationships within academic teaching hospitals, at multiple levels of these institutions, and across three distinct hospital settings: General Internal Medicine; Primary Care; and Rehabilitation Care.

Methods: Over the course of a twelve week period, a project coordinator proceeded to contact upper level hospital administration, educational representatives, and ground level health care practitioners across the various hospital settings. An introductory communication letter 'opened a door' to facilitate communication via telephone call, e-mail exchange, face-to-face interchange, and formal and informal group meeting. Each communication exchange was documented by the project coordinator and
verified by a research associate. This process gleaned hundreds of interactions that were organized according to 'type' and 'result' of interaction.

**Results:** Analysis of the various modes of communication identified similarities across hospital settings; however, marked differences are recognized as a result of hospital structure, and the manner in which clinical teaching units are organized. The findings are presented in a manner of 'best practices' according to the successes and roadblocks encountered by our research team.

**Conclusion:** These findings suggest that an effective strategy requires time, patience, and above all, collaboration of health care practitioners found at all levels of the academic teaching hospital. While identifying opportunities and acknowledging obstacles in accessing multiple layers of hospital administration and organization structure, we present strategies to make this process easier for subsequent research teams.

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**North American Primary Care Research Group (NAPCRG) 2006**
October 15 - 18, 2006, Tucson, Arizona

**INTERPROFESSIONAL COMMUNICATION IN PRIMARY CARE: RESULTS OF A PILOT STUDY FOR THE SCRIPT PROGRAMME**
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**Purpose:** This paper presents preliminary findings from a larger 30-month study designed to promote and facilitate interprofessional communication in three health care settings (General Internal Medicine, Primary Care and Rehabilitation Care). The data presented here represents work conducted from the pilot study on interprofessional communication in primary care, which explores the existing factors that facilitate and/or function as barriers to effective interprofessional communication for patient-centred care. Findings contribute to the larger study whose objectives are to design, implement, and evaluate an intervention (i.e., a communication tool or process) for the improvement of interprofessional communication and collaboration in the primary care setting.

**Methods:** Ethnographic researchers spent up to 10 hours per week, over the course of four weeks, in the family practice units of four distinct/heterogenous hospitals. They unobtrusively observed and informally interviewed members of the health care teams, including allied health professionals, doctors and medical trainees, nursing staff, and unit administrative staff. Data was collected in the form of handwritten field notes, which were subsequently entered electronically into Nvivo, a qualitative data analysis software program. All observation and interview data was coded for themes by one researcher, then reviewed and refined iteratively by three additional members of the research team.

**Results:** Preliminary analysis identified two significant categories of communication in primary care that currently impede collaborative interprofessional group work: (1) duplicated communication, that increases the workload of some while lessening that of others, and (2) frustrated communication, particularly where professional training and patient-care are competing priorities.
Conclusion: These findings suggest that an effective intervention for the improvement of interprofessional collaboration requires equal participation of, and value for, all health care practitioners and trainees in the primary care setting.

RECOMMENDATIONS FOR "BEST PRACTICES" IN ACCESSING INSTITUTIONS FOR INTERPROFESSIONAL COLLABORATIVE RESEARCH IN MULTI-SITE SETTINGS

Jennifer Beales1,9, Ivy Oandasan1,2, Merrick Zwarenstein3,1, Lynne Sinclair5,6, Lesley Gotlib Conn1, Scott Reeves2,7, Lorelei Lingard7,8, Karen-lee Miller1

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7 Wilson Centre for Research in Education
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9 Faculty of Pharmaceutical Sciences, University of Toronto, Toronto, Ontario, Canada

Purpose: The manner in which a research team should go about accessing institutions for interprofessional collaborative research remains undocumented and relatively unclear. This poster presents recommendations for 'best practices' in fostering collaborative relationships within academic teaching hospitals, at multiple levels of these institutions, and across three distinct hospital settings: General Internal Medicine; Primary Care; and Rehabilitation Care.

Methods: Over the course of a twelve-week period, a project coordinator proceeded to contact upper level hospital administration, educational representatives, and ground level health care practitioners across the various hospital settings. An introductory communication letter 'opened a door' to facilitate communication via telephone call, e-mail exchange, face-to-face interchange, and formal and informal group meeting. Each communication exchange was documented by the project coordinator and verified by a research associate. This process gleaned hundreds of interactions that were organized according to 'type' and 'result' of interaction.

Results: Analysis of the various modes of communication identified similarities across hospital settings; however, marked differences are recognized as a result of hospital structure, and the manner in which clinical teaching units are organized. The findings are presented in a manner of 'best practices' according to the successes and roadblocks encountered by our research team.

Conclusion: These findings suggest that an effective strategy requires time, patience, and above all, collaboration of health care practitioners found at all levels of the academic teaching hospital. While identifying opportunities and acknowledging obstacles in accessing multiple layers of hospital administration and organization structure, we present strategies to make this process easier for subsequent research teams.

The Wilson Centre Research Day 2006
October 12 - 13, 2006, Toronto, Ontario

THE SCRIPT GIM PROJECT: A CLUSTER RCT TO EVALUATE INTERPROFESSIONAL COLLABORATIVE COMMUNICATION IN GENERAL INTERNAL MEDICINE (GIM).
Ann Russell1, Merrick Zwarenstein1, Lesley Gotlib Conn2, Chris Kenaszchuk1, Scott Reeves1,4, Lorelei
Subsequent to the Romanow Commission (2002) and the First Ministers’ Accord (2003), there is a growing movement in Canada that advocates the use of interprofessional education to help deliver collaborative patient-centred care (Oandasan et al., 2004). Evidence of the effectiveness of interprofessional education suggests that it can generate a number of positive outcomes for professionals and for patients (Barr et al. 2005). However, at present, this evidence base is generally weak and fragmentary in nature (Zwarenstein & Reeves 2006). This poster reports on design of a cluster randomized controlled trial (RCT) in general internal medicine (GIM) that seeks to embed opportunities for interprofessional education in the daily practices of health care professionals situated at 5 teaching hospitals in Toronto. Preliminary design strategies and findings of the SCRIPT-GIM Programme (Structuring Communication Relationships for Inter-professional Teamwork in General Internal Medicine) are presented. First, the general design framework is articulated (e.g., mixed methods). Next, results of ethnographic observational analysis are presented including description of a workplace curriculum that emerged from the qualitative analysis and a synthesis of the literature. Finally, this poster outlines the proposed evaluation strategy intended to measure the degree to which the SCRIPT-GIM curriculum succeeds at improving interprofessional collaboration as measured by a variety of quantitative and qualitative variables including but not limited to staff and patient satisfaction, patient length of stay and readmission rates, and so on.

INTERTROFESSIONAL COMMUNICATION IN PRIMARY CARE: RESULTS OF A PILOT STUDY FOR THE SCRIPT PROGRAMME
Lesley Gotlib Conn1, Ivy Oandasan1,2, Scott Reeves1,3,5, Lorelei Lingard3,4, Cynthia Whitehead6, Natalie Kennie7,8, Karen-lee Miller1

Purpose: This poster presents preliminary findings from a pilot study on interprofessional communication in primary care, which explores the existing factors that facilitate and/or function as barriers to effective interprofessional communication for patient-centred care. This is part of a larger study to design, implement, and evaluate an intervention (i.e., a communication tool or process) for the improvement of interprofessional communication and collaboration in the primary care setting.

Methods: Ethnographic researchers spent up to 10 hours per week, over the course of four weeks, in the family practice unit of a prominent academic teaching hospital. They observed and informally
interviewed members of the health care teams, including allied health professionals, doctors and medical trainees, nursing staff, and unit administrative staff. Data were collected in the form of handwritten field notes, which were subsequently entered electronically into Nvivo, a qualitative data analysis software program. All observation and interview data were coded for themes by one researcher, then reviewed and refined iteratively by three additional members of the research team.

Results: Preliminary analysis of the findings will be presented focusing upon identifying issues related to interprofessional communication and knowledge of professional roles and responsibilities amongst health professionals within this primary care setting.

Conclusion: The preliminary findings suggest that an effective intervention for the improvement of interprofessional collaboration in the primary care setting requires communication strategies which focus on understanding different health care practitioners' roles, responsibilities and contributions to the 'the team' and to 'the patient'. It is anticipated that such an approach will help ensure an optimal level of patient-centred care.

APPENDIX B

Publications and Feature Articles

SCRIPT Feature Publications


SCRIPT Team Publications

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