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Factors in Optimal Collaboration Between Psychologists and Primary Healthcare Physicians

Margaret A. Drewlo
Antioch University - Seattle

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Between Psychologists and Primary Healthcare Physicians

This dissertation, by Margaret Drewlo, has been
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Dissertation Committee:

_____
Patricia Linn, Ph.D.
Chairperson

_____
Mary Wieneke, Ph.D.

_____
Natasha R. Harvey, Ph.D.

_____
Date

Abstract

Factors in Optimal Collaboration

Between Psychologists and Primary Healthcare Physicians

Margaret Drewlo

Antioch University Seattle

Seattle, WA

This survey study explored factors in optimal collaboration between registered

psychologists and primary healthcare physicians (PHCP). With rising costs of healthcare,

healthcare funding cuts, and changes in the way healthcare delivery is perceived,

interprofessional collaboration is timely to explore. In particular, the attitudes of

registered psychologists about salient factors noted in the collaboration literature, such as

education and training, accessibility, and communication factors are important to the

practice of psychology. As part of the exploratory nature of the study, questions about

gender and hierarchy were also presented. While most data were quantitative, qualitative

data were gathered on 6 of the 39 questions in the survey. Participants were 349

registered psychologists from all provinces in Canada, 125 male, 222 female. Two

hundred and ninety five participants completed the survey in English; 54 completed the

survey in French. Predictor variables used were education and training, accessibility, and

communication factors. These were related to the criterion variable preferred form of

collaboration consisting of the following levels of contact: (a) classic form of referral and

consultation, (b) informal collaboration/ corridor consultation, (c) formal collaboration,

(d) co-provision of care, and (e) co-therapy. Exploratory areas were hierarchy and

necessity. Results of descriptive analysis of central tendencies and variability of the

variables in the study were presented. Further data analysis indicated significance between the predictor variable of necessity and the criterion variable preferred form of collaboration. Analysis also revealed significance between the predictor variable education and training and the criterion variable: preferred form of collaboration. Finally, multinomial logistic regression analysis revealed a significant relationship among the variables age, years of practice and field of psychology as they relate to a preference for interprofessional collaboration. While the above relationships were statistically significant, the amount of variance explained was small suggesting caution in generalizing the findings. Significance was not found with other factors deemed important in the relevant literature. Data analysis also revealed that although a majority of registered psychologists in the study did not view forms of collaboration with closer contact than classic referral to be viable in their current practice, 75% preferred forms of collaboration involving more contact with the primary healthcare physicians with whom they work. Collaboration between registered psychologists and primary healthcare physicians may benefit from research using a refined scale of collaboration measurement. The electronic version of this dissertation is at OhioLink ETD Center, www.ohiolink.edu/etd

Dedication

To my parents who are my foundation;

To my family - by birth and marriage - who are my wide net of support;

To Paul who is my stalwart partner and ally;

To Michael who is my heart;

- I thank you all.

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I would like to express my deepest appreciation to my committee chair Dr. Patricia Linn. A stellar educator with a sense of humor, she was a source of unending encouragement. Without her constant help this dissertation would not have been possible. I would also like to thank committee members Drs. Mary Wieneke and Natasha Harvey, whose sage advice and commitment to excellence improved my project immensely.

My acknowledgements would not be complete without thanking the registered psychologists who participated in my study, consultants Dr. Jeffry White and Dr. Jayne Alexander, and translator Lucie Le Blanc.

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Chapter I: Introduction

If you want to go quickly, go alone. If you want to go far, go together.

—African Proverb

Background

With rising costs of healthcare, healthcare funding cuts, and changes in the way healthcare delivery is perceived, interprofessional collaboration in providing healthcare is timely. Budgetary concerns, training advances, and an interprofessional zeitgeist in healthcare have culminated in the necessity for professions in healthcare to work together for the greater benefit of the client (Vasiliadis et al., 2013). Collaboration is defined as a process that requires relations and interactions among health professionals, regardless of whether they are members of a formalized team or a less formal or virtual group of health professionals working together to provide comprehensive and continuous care to a patient/client (Canadian Health Services Research Foundation, 2006).

Often the term *interprofessional* has been used synonymously with the terms *interdisciplinary* and *multidisciplinary* (Geva, Barsky, & Westerhoff, 2000). The distinction is that the term interprofessional stresses the nature of professions as opposed to discipline, which refers to an area of study or particular area of science. Profession refers to a group of practitioners who have a certain set of values, ethics, skills, and practice methods (Geva et al., 2000; Thomas, 2012). Interprofessional is defined as a working relationship in which a professional's skills, knowledge and roles are adapted to fit in with other professions (Finch, 2000). *Patient* is often a medical term, whereas *client* is a term used in psychology. Hereforth, the term client will be used. *Primary care* is a term that includes the concept of essential healthcare based on practical, scientifically

sound, and socially acceptable method and technology. World Health Organization standards state that primary care ideally comes at an affordable cost, is accessible to all in a community, and is geared toward self-reliance and self-determination (World Health Organization [WHO], 1978).

At present, primary healthcare care services in Canada are delivered chiefly by family physicians and general medical practitioners who focus on the diagnosis and treatment of illness and injury (Health Canada, 2011). For the purposes of this research, primary healthcare physician (PHCP) and family physician are understood to be interchangeable (J. Thorsteinson, personal communication, May 28, 2012).

Collaboration in healthcare between psychologists and PHCPs makes practical sense because PHCPs are the first point of contact for most clients seeking relief from mental health distress. Psychologists are specially trained in mental health assessment and treatment, whereas PHCPs are not (Kates et al., 1996; Thielke, Thompson, & Stuart, 2011). A collaborative relationship between psychologists and primary healthcare physicians would suggest a greater likelihood that physicians will refer clients to a psychologist for psychotherapy or treatment. Such a referral would increase the likelihood that clients obtain appropriate care for their mental health concerns and possibly reduce the likelihood of medication use for symptoms that could be treated less invasively (such as through cognitive, behavioral or holistic approaches). Collaboration with physicians is beneficial for psychologists so they are not left behind as healthcare practices advance (Holleman et al., 2004).

Theoretical Background

Biopsychosocial thinking presents people as a whole, including their biology, psychology, behavior, and social environment. This concept is typically attributed to psychiatrist George Engel (1977) who developed and named the model in an article critiquing the biomedical model of care for psychiatry. From a biopsychosocial perspective, disease arises from psychological factors and the social environment, in addition to biochemical or neurophysiologic processes (Engel, 1977). The biopsychosocial approach is taught in most medical schools and has been widely accepted and adapted in medicine, as well as additional disciplines, including social and psychological services (Smith, 2002; Tovian, 2006). For example, the approach is used in family-systems medicine, (McDaniel, 1992, 1995; McDaniel & leRoux, 2006), in studies of neuroplasticity (Garland & Howard, 2009), self-injury (Askew & Byrne, 2009), obesity (Forhan, 2009), mental health and addiction (Morisano, Bacher, Audrain-McGovern, & George, 2009), oncology (Ownsworth, Hawkes, Steginga, Walker, & Shum, 2009; Wiener et al., 2012), and treatment of resistant depression (Fletcher, Gavin, Harkness, & Gask, 2008; Thomas et al., 2012). The biopsychosocial approach may be the most comprehensive approach to medical illnesses, considering all areas of a person's life as a guide to root causes of a client's health problems (Gatchel & Oordt, 2003). The advent of biopsychosocial theory promoted increased interdisciplinary attitudes and understanding among the medical profession (bio), the psychologists (psycho) and the social workers (social).

According to Bluestein and Cubic (2009), current thinking conceptualizes primary healthcare as a biopsychosocial endeavor rather than a biomedical one. Comparing a

biopsychosocial approach with a biomedical approach reveals a proactive–reactive

dichotomy. Instead of perceiving presenting symptoms as only related to systems in the

body, primary healthcare takes the position that a person's symptoms may have causes

and cures in the body, mind, and social environment. Treatment of the whole person not

only makes good sense for the client, but also offers professionals an opportunity to learn

from colleagues who have been trained in different disciplines with the ability to see the

individual from different perspectives (McDaniel & leRoux, 2006). From a

biopsychosocial orientation, focusing only on illness or symptom management is

considered reactive medicine. Treating the whole person shifts the treatment perspective

to creating balance and wellness instead of illness or symptom management. This is

considered proactive medicine (Hunsley, 2003).

Financial Issues in Healthcare

In Canada, provinces spend about 40% of their budgets on healthcare. Hospital

costs are highest, followed by physician costs and the cost of medications (Canadian

Institute for Health Information, 2011). It is estimated that individuals with mental health

problems have the highest utilization rate of mental and physical health services and

make up 50-70% of the client population in primary healthcare settings in Canada

(Nelson, 2010). Primary care is also the de facto mental health centre for 70% of

Americans (Blount, DeGirolamo, & Mariani, 2006). The high cost of healthcare creates

pressure on governmental budgets. Canada's health-care system costs 10% of the

country's Gross Domestic Product and almost 40% of provincial budgets (Arnett, 2006;

Arnett, Nicholson, & Breault, 2004).

The Role of the Primary Care Physician

Healthcare changes, such as diagnostic and therapeutic advances, along with the multiple physical, social, and mental health needs of complex clients, have put considerable stress on solo and group practice primary care physicians. The 10-15 minute primary healthcare office visit is the current standard; it is where most clients present for mental health issues (Kates, 2008; Thielke et al., 2011). Most physicians are unsure of the most appropriate interventions for these individuals (Anderson & Lovejoy, 2000; Craven & Bland, 2006). Understandably, physicians have been overwhelmed by the mental health needs of clients (Witko, Berens, & Nixon, 2005). Further, many medical conditions are complicated by psychological factors. Because psychologists are experts in mental health assessment and care, they are obvious partners in healthcare (O'Donohue & Cucciare, 2005). Proactive treatment is also cost effective because successfully treated clients become less frequent users of other healthcare services (Needham et al., 2003; Moulding et al., 2009; Vasiliadis et al., 2013).

Healthcare in Canada: The History of Separation of Mental and Physical Care

The history of healthcare in Canada sets the context for the separation of mental and physical healthcare. Public healthcare or Medicare in Canada had its genesis in the province of Saskatchewan in 1947, followed by interventions in hospital care in Alberta and British Columbia (Arnett, 2006; Romanow & Marchildon, 2003). The Canadian federal parliament passed the Hospital Insurance and Diagnostic Services Act in 1957. With the Act came the federal offer of cost-sharing transfer payments with the provinces. By 1961 all Canadian provinces and territories adopted Saskatchewan's model of universal public health insurance. In that model, psychiatric services were separated from

hospital services. The partition of physical health and mental health likely had its roots as far back as Descartes and the concept of mind–body dualism (Cushman, 1994), but the concept of dividing health into two parts was more entrenched in Canada by this separation of services. Further, the focus of healthcare was on treatment of physical, potentially fatal diseases, rather than wellness (Arnett, 2006; Romanow & Marchildon, 2003).

Canadian psychologists were not included in the national health plan of the 1960s because of apparent indecision on the part of the Canadian Psychological Association (CPA) about participating (Wedding, Ritchie, Kitchen, & Binner, 1993). This indecision, perhaps rooted in fears that psychologists would be physician extenders and not self-determined professionals in their own right, has had long-lasting effects on the abilities of psychologists to fully participate in the provision of healthcare. Psychologists cannot bill the government for their services in the same way that physicians can (Ali, 2001).

All Canadian provinces had universal Medicare by 1972 (Romanow & Marchildon, 2003), including universal public health insurance for primary medical care outside hospitals. During this phase of the development of universal healthcare the role of the physician as the team leader or center of health decision-making came into play. The fee-for-service model, with the government instead of private individual as payee, was cemented in national healthcare practice. In the years that followed, other Canadian health professions, such as chiropractic, massage therapy, and acupuncture were sometimes brought under the aegis of the universal healthcare system, enabling them to bill directly for their services. However, clinical psychologists were never afforded this right (Ali, 2001; Ritchie et al., 1988; Romanow & Marchildon, 2003). Similarly, some

researchers in the United States believe psychology has become the "stepchild" of the healthcare system because of the reluctance of many psychologists to consider that psychology can be practiced as a business (Cummings, Cummings, & O'Donohue, 2009).

Deinstitutionalization

The central historical event in Canadian mental health history was deinstitutionalization. The deinstitutionalization of thousands of individuals who had previously lived in Canadian mental institutions occurred during the 1960s and 1970s (Romanow & Marchildon, 2003). Deinstitutionalization was a response to budgetary concerns and public perceptions of the dehumanizing nature of the institution (Schissel, 1997), yet this crisis in mental health did not increase the profile of the psychologist. Instead, physicians, still seen as the central axis of healthcare in the community, continued to refer patients to medical doctors (psychiatrists) or attempted themselves to treat clients with mental health issues. The Canadian health-insurance plan excluded psychologists but funded psychotherapy provided by a physician whether or not the physician had any training in psychotherapy (Wedding et al., 1993).

The Call for Interprofessional Care

The World Health Organization (WHO) called for a move to interprofessional care in 2002 when it focused on an interdisciplinary approach to health (WHO, 2002). The implementation of this move has progressed slowly in many parts of the world, including Canada. Implementation has occurred more in the United States than in Canada. In the United States 18 states and the District of Columbia granted hospital privileges to psychologists. Although psychologists are employed in some Canadian hospitals, to this date, no psychologists have hospital privileges, denying them the ability

to admit patients to the hospital and treat them while there (Ali, 2001); few have voting privileges on medical boards (Humbke et al., 2004) or full privileges in medical centers (Garcia-Shelton & Leventhal, 2005).

The need for mental health services and the effect of mental health-related diseases, such as depression, are profound. British data suggest that the cost of depression to the national economy is 20 times the actual cost to the healthcare system (Hunsley, 2003). The value of psychology in lowering risk factors for many diseases has been clearly demonstrated by research (Graves, 2003). Psychological interventions cost up to 80% less than the usual therapies, including that of medication (Romanow & Marchildon, 2004). Further, psychological factors impact many medical presentations (O'Donohue & Cucciare, 2005). As a result of the Canadian health care system's hesitancy to respond to empirical research, some analysts have criticized healthcare in Canada as operating more by government policy than scientific evidence (Hunsley, 2003).

Government policy affects the manner in which psychologists and physicians are able to collaborate. Without the support of government funding, psychologists cannot bill for their services as physicians can, but psychologists in private practice may bill private insurance companies when the client has an extended medical insurance plan. Most psychologists in Canada base some or all of their income in private-practice work (Hunsley, Ronson, & Cohen, 2013). Because PHCPs are the first point of contact for Canadians in mental health distress, finding a way to increase collaboration between psychologists and PHCPs would have benefits for clients who seek relief from this distress. Psychologists whose aim is to reduce suffering may reduce the caseload of

physicians who are charged with the care of a client but are overburdened and have little training in mental health and psychological issues.

Psychologist–Physician Collaboration

Psychologists and physicians have long been concerned with the same mental issues in primary healthcare (McDaniel & leRoux, 2006) and mental health (Bray, 2004). As far back as the late 1940s, and 1950s, the concept of collaboration appeared in the psychological literature in the form of different professions, such as psychologists and social workers working together or private-practice physicians employing psychologists to work with clients in their offices (Clay, 1949; Day, 1949). Prior to the 1980s researchers wrote about the importance of location in developing creative and innovative relationships between psychologists and healthcare facilities (Tefft & Simeonsson, 1979). Walker and Collins (2009) note the operationalizing of collaboration is in question.

Recently influenced by economic issues in Canada and the United States, scholars have focused on ways to illustrate collaborative functioning in varied healthcare settings. However, to this date, few scholars provided examples of a Canadian-based working relationship between psychologists and physicians. Because Canadian-based research is still limited, studies from the United States and Australia have been included to give this literature review breadth.

Clinical Training Programs to Increase Psychologist-Physician Collaboration

Clinical training is considered a vital facet of successful collaboration. Habits and attitudes developed in early clinical and educational training often persist over the lifetime of a professional's career (McDaniel & Speice, 2001). Specific primary-care psychology training is viewed as indispensable to the successful teamwork and

collaboration of psychologists in primary care (Arnett, 2001, 2005; Arnett & Martin, 1981; Bray, 2011; Cubic, Mance, Turgesen, & Lamanna, 2012; Garcia-Shelton & Vogel, 2002; Lee, Schneider, Bellefontaine, Davidson, & Robertson, 2012; Runyon, 2011; Talen, Fraser, & Cauley, 2002). By defining the differences in curriculum components for clinical health psychology, medical family therapy, and primary-care psychology, researchers created a foundation for a unified discussion of the differing types of participation a psychologist and medical team might share in a healthcare setting (Runyan, 2011).

Researchers Anderson and Lovejoy (2000) described a primary-care training program aimed at increasing skills needed for a collaborative approach. In a freestanding family-medicine outpatient clinic in Virginia, doctoral students in clinical psychology were teamed with medical residents and completed practica at the clinic for four months. Examination rooms were arranged to accommodate three people, and consult rooms were arranged like living rooms that could hold six people. The purpose of the practicum for medical residents was to increase recognition of clients with psychological distress, interest in providing psychosocial care to clients, and mental health referrals. For the psychology doctoral students, the purpose was to improve interviewing, diagnosing, and treating clients for psychosocial distress and mental disorders in an outpatient primary-care setting. Students and residents worked in tandem with the same client at the same time in the same examining room.

Psychology doctoral students were administered the Oetting/Michaels Anchored Rating Scale for therapist assessment and intervention at the midterm and end of the practicum. Medical residents were administered the Physician Belief Rating Scale, a

valid and reliable self-report tool that measures the beliefs of PHCPs about psychosocial aspects of client care. A one-tailed *t*-test of paired samples was used for the Oetting/Michaels Anchored Rating Scale and the Physician Belief Rating Scale. Results were statistically significant for both groups. The psychology students improved assessment and intervention skills from the midterm to the end of the practicum, and the medical students reported more positive attitudes about mental healthcare. The referrals from medical students to psychology students for mental health treatment increased 12-fold after completion of the program, suggesting that residents and interns working together positively influenced referrals.

Another research study based on a unique training program offered a side-by-side practicum in which psychology interns trained with family-practice residents, acting as consultants and educators to the residents while also learning to operate in a primary-care culture (Bluestein & Cubic, 2009). The project provided an opportunity for the psychology interns to assist medical residents with interpersonal and communication skills. Under the supervision of a licensed clinical psychologist and family medicine preceptor, psychology interns and family-medicine residents collaboratively designed treatments. Important differences between typical psychology training and training in integrated care became apparent to psychology interns during this process. These differences included viewing treatment as a team process, becoming comfortable sharing information with primary-care providers while still maintaining confidentiality about details of clients' experience, making a paradigm shift in assessments by shifting to brief assessments, and effectively integrating psychological care into healthcare to avoid stigmatizing issues around mental health.

Summary. The previously described clinical-training programs are progressive in their attempts to engender a collaborative approach to improving client care. The methodologies in Anderson and Lovejoy's (2000) and Bluestein and Cubic's (2009) studies differ from the traditional model of the psychologist working privately for a 50-minute hour with clients, assiduously guarding clients' confidentiality (Kelly & Coons, 2012). Because of the benefits of a collaborative approach, Haley et al. (1998) encouraged psychologists to modify their traditional working style from individual solo practice to a collaborative model.

Factors in Successful Collaboration

Study 1. Sargeant, Loney, and Murphy (2008) conducted qualitative research with interprofessional teams, consisting of physicians, nurses, mental health workers, social workers, occupational therapists, addictions therapists, primary healthcare coordinators, and physiotherapists. The researchers explored perceptions of effective primary healthcare teams to understand the related learning needs of primary healthcare professionals. Transcripts were generated from nine focus groups ($N = 61$) comprised of primary healthcare teams who had expressed a particular interest in teamwork. Using content analysis and grounded hermeneutic approaches, transcripts were analyzed to identify factors that enhanced collaboration. These factors included understanding the roles of others on the team, recognizing that maintaining healthy working relationships requires effort, understanding primary care, recognizing the importance of accessibility and effective communication. Communication was identified as the crucial factor in effective primary-care healthcare teams. Findings may have been skewed by the fact that

all participants were already enthusiastic about working as interprofessional team members (Sargeant et al., 2008).

Study 2. The American Psychological Association supported a pilot project designed to facilitate collaboration between psychologists and primary-care physicians (Pace, Chaney, Mullins, & Olson, 1995). A post-project survey of responses to the project found that physicians thought that psychologists should be included in all major health plans and that behavioral and mental health services should be covered and reimbursed by those plans. Furthermore, from the survey data collected and analyzed, researchers concluded it was imperative for psychologists to have independent access to hospital privileges to consult and share primary-care responsibilities with primary care physicians. Survey responses also suggested that the onus was on psychologists to develop a better relationship with physicians, suggesting that psychologists expand their research efforts in primary care issues and increased collaboration (Pace et al., 1995).

Dissenting views. Not all medical residents or physicians find value in collaboration. Garcia-Huiboro, Skewes, Barros, Pizarro, and Gawinski (2013) described an interprofessional training program in Chile, involving psychology, nursing, and medical students. The research team found that although a high percentage of nursing and graduate psychology students found the interprofessional course useful, medical students were not as enthusiastic. Knowles et al. (2013) studied the implementation of collaboration in primary care focused on depression and chronic physical health conditions in the United Kingdom. These researchers found that implementing interprofessional collaboration in primary care settings was challenged by established divisions between mental and physical health practitioners.

Team Player Versus Team Leader

One of the most contentious issues in healthcare collaboration is professional power. Nurses and physicians have historically differed on the subject of collaboration, and the nursing literature was one of the first to address this issue (Zelek & Phillips, 2003). Historically, nursing has been a profession for women; medicine has been a profession for men.

Gender often played a role in collaboration. Nurses argued that the definition of collaboration needed to focus on working interdependently with shared values, mutual acknowledgment, and respect for each other's contributions (Hallas, Butz, & Gitterman, 2004; Zelek & Phillips, 2003). Physicians asserted that every team needed a leader and that only physicians could fill that role because they had more education and experience. Physicians also believed that liability was an issue and collaboration would mean relinquishing control while still retaining liability (Avery, 1995). King and Cubic (2005) and Sanders, Breland-Noble, King, and Cubic (2010) described gender inequality experienced by female psychologists in academic health systems. King and Cubic asserted that academic medicine was male dominated and hierarchical, structured along corporate lines, driven by economic pressures, with inflexible, restrictive pathways for career advancement. S. Williams, Wedding, and Kohout (2000) investigated gender differences in employment characteristics and base salaries for medical and school psychologists. Their study achieved a response rate of 50% ($n = 1947$). The authors reported descriptive statistics for their survey of psychologists employed within American medical school settings. Data identified that male psychologists earned more than female psychologists in all departments, without regard to years of experience.

Ellingson (2002) notes that collaboration cannot take place where hierarchy is present. If the balance of power in an interprofessional setting resides with any one professional, hierarchy is present (Fewster-Thuente & Velsor-Friedrich, 2008). Medical students are socialized to work independently and hierarchically (Garcia-Huiboro et al., 2013; McDonald, Jayasuriya, & Harris, 2012). When researching collaboration between psychologists and physicians, gender differences may exist and the importance of hierarchy cannot be overlooked.

What Physicians Want From Psychologists

A review of the recent literature suggests that in primary healthcare medicine the physician is positioned as the team leader. Grenier, Chomienne, Gaboury, Ritchie, and Hogg (2008) surveyed eastern Canadian family physicians to determine what physicians wanted from psychologists who were members of their teams. Physicians indicated that psychologists needed to be clearer about their credentials and what they had to offer, including the ability to implement short-term psychological strategies with clients; they must be more willing to provide feedback to the physician after accepting a referral, which may raise ethical issues relating to confidentiality.

In a position paper for the American Psychological Association, the Committee for the Advancement of Professional Practice Task Force on Primary Care, consisting of America's key researchers in the area of psychology in primary care Haley et al. advised psychologists to (a) keep in mind the physical experiences of health, instead of focusing solely on thoughts and emotions, (b) develop a working knowledge of the other professions' methods of training and approach to problem conception and inquiry,

(c) reconsider their tools of assessment, (d) be prepared to be a primary-healthcare

generalist, and (e) offer decisive opinions about behavioral issues in client care (1998).

      Kainz study. In a mixed–methods study at two multispecialty medical clinics,

Kainz (2002) studied high and low physician referrers to psychology. Physicians were

separated into two groups: high and low referrers to the clinic's psychology department.

Professional moderators facilitated focus groups of the two groups of physicians. Three

themes were found in the transcripts: (a) What do physicians want from psychologists?

(b) What do physicians know about psychologists? and (c) What do physicians believe

about the profession of psychology? These themes provided the basis for an 11-item

questionnaire. The researcher did not describe the process of distilling themes in detail or

indicate if triangulation was used in handling the qualitative data. Researchers sent 120

questionnaires to two clinics; 85 were returned, resulting in a return rate of 71%. Kainz

(2002) concluded that physicians found referral to psychologists difficult for several

reasons. Clients were unable to gain rapid access to psychologist appointments,

especially in emergency situations. Some psychologists required that clients make their

own appointments, perhaps to ensure that the appointment was client driven. This

requirement is in direct contrast to physicians' sense of responsibility toward the care of

the client, leaving a lack of closure with which physicians were uncomfortable.

Additional challenges to physician–psychologist collaboration illuminated in Kainz's

study included poor communication, the problem of insurance paying for medication but

not for therapy, negative attitudes of clients and physicians to psychological therapy, and

uncertainty of professional boundaries. Positive factors that encouraged referral were

good rapport with physicians, good reputation of the psychologist among peers, good

feedback from clients, timely feedback from the psychologist, and a prior awareness of the kind of approach the psychologist would use with the client.

Kainz (2002) saw the relationship between psychologist and physician as one of supplier and customer. Kainz urged psychologists to see physicians as their customers and to adapt their practice accordingly.

The limited number of items on the questionnaire used in the study conducted by Kainz (2002) poses a possible threat to construct validity as well as the fact that a complete list of questionnaire items was not provided.

Effectiveness of Psychologist–PCHP Collaboration

Study 1. Nijhuis et al. (2007) conducted a meta-analysis of studies in another attempt to examine collaboration, when viewed from the perspective of pediatrics. Researchers required that studies primarily focus on team collaboration in pediatric rehabilitation in a pediatric setting. Nijhuis's team searched for studies on Index Medicus, (MEDLINE), Educational Resource Information Clearing House (ERIC), and the American Psychological Association (Psyc INFO). The researchers selected studies based on article title and abstracts. The search terms were as follows: *collaboration, team collaboration, interdisciplinary rehabilitation approach, integrated services, multidisciplinary or integrated or interdisciplinary team, parent-school relationship,* and *rehabilitation care team.*

Of the 930 documents found, 28 fit the following inclusion requirements: original scientific articles published in English and published in journals listed in the Social Science Citation Index, the Arts and Humanities Citation Index, or on the journal list of the Institute for the Study of Education and Human Development. From the meta-

analysis, five factors of effective collaboration were described as being important to successful collaboration: communication, decision making, goal setting, organization, and team process. Among these factors, communication was chosen as a guiding factor in developing the questionnaire for the present study because it was cited in the literature (Ellingson, 2002; Kainz, 2002; Nijhuis et al., 2007; Orchard, Curran, & Kabene, 2005) as an important factor in collaboration.

Study 2. Winefield and Chur-Hansen (2004) examined the collaboration of Australian psychologists and PHCPs. The authors' review of the empirical literature on interprofessional education and training suggested that psychologists and PHPCs experienced little interprofessional education. The authors then sponsored a dinner meeting for 25 psychologists who were considered to be opinion leaders in clinical psychology and 25 PHCPs. Based on the recorded discussions of the meetings and the subsequent distilling of themes from the discussions, the authors advocated promoting collaboration to improve communication in daily interactions of practitioners and appealing to policy makers concerning the financial benefits of collaboration.

Study 3. Chomienne et al. (2010) created a demonstration project whereby two board-certified psychologists were integrated into two Eastern Ontario, Canada primary healthcare medical practices for 12 months. The psychologists offered short-term psychotherapy (8 to 12 sessions) to 376 clients (representing 76% of referred clients by PHCPs). Other clients declined the referral or failed to keep appointments. In addition to psychotherapy, the psychologists scheduled daily drop-in hours, offered unscheduled consultations to the primary healthcare physicians, and participated in four knowledge-transfer sessions between psychologists and doctors. Using Outcome Questionnaire 45

(OQ-45), which measured progress of a client through treatment and after termination, to pre and post-test the patients, the researchers developed what they called the Reliable Change Index (RCI), which measured degree of change from first to last treatment session. Of the patient participants, 70% completed OQ-45 questionnaires before and after the intervention, and 45% completed EQ-5D questionnaires at the beginning and end of the study. Results were that quality of life, as measured by the EQ-5D, improved for 83% of participants, and 61% indicated improvement of psychological symptoms. Improvements in patient well-being and the ability to refer patients for rapid assessment and intervention led to physicians reporting a major positive impact on their practice, including their perceptions of improvements in patient care, office atmosphere, and their own quality of life at work (Chomienne et al., 2010).

Study 4. Lee et al. (2012) conducted a large scale, brief Internet survey of Canadian psychologists ($n = 1,040$) and psychiatrists ($n = 247$). Researchers queried professionals regarding their experiences in collaboration between the two professions. Using a logic model, the researchers streamlined the number of questions each participant answered based on answers to key questions that directed participants only to questions that pertained to them. The researchers found that the majority of participants described themselves as at least somewhat familiar with the training and professional activities of those in the other profession and that most autonomous professionals became familiar with the other professional's practices through collaboration around specific cases. The researchers also found that two thirds of participants in their study reported they had no opportunities to put into practice what they learned about the other profession (Lee et al.,

2012). The study's strength was the large sample sizes; however, construct validity is questionable because of the small number of questionnaire items.

The Case for Research: Psychologist's Point of View

With their specialty in mental health assessment, diagnosis, and treatment, today's psychologists possess the skills to join with physicians in a new collaborative world of healthcare. First, psychologists are not only trained in relationships but also in the evidence basis for choosing assessments and treatments. Second, 50-70% of clients presenting in primary-healthcare settings possess mental health concerns (Nelson, 2010). Third, the fit of psychologists into healthcare settings alongside PHCPs is optimal when psychologists have received training in medical issues, neuropsychology, and behavioral health techniques (Eby, Chin, Rollock, Schwartz, & Worrell, 2011; Possemato, 2011). Fourth, psychologists cost less to train than physicians. Therefore, involving psychologists in primary care with clients presenting at PHCPs is an attractive solution to the overburdened health care system.

Researchers have represented the views of physicians on the subject of what works in the psychologist–physician professional relationship by interviewing them and collecting their opinions (Chomienne et al., 2010). Researchers have also presented psychologists' views on how clinical psychologists can best adjust and fit themselves into a physician centric system (Gatchel & Oordt, 2003; Grenier et al., 2008; Haley et al., 1998; Lee et al., 2012).

The Present Study

Previous studies on collaboration found that physicians welcomed a closer working relationship with psychologists to reduce the amount of responsibility for mental

health given to physicians. Frequent, respectful, formal, and informal, face-to-face communication was vital to successful collaboration on interprofessional healthcare teams (Ellingson, 2002; Fewster-Thuente & Velsor-Friedrich, 2008; Hallas et al., 2004; Nijhuis et al., 2007; Sargeant et al., 2008). Specifically, physicians opined that feedback from psychologists to physicians was seen as an area needing improvement (Chomienne et al., 2010; McDonald et al., 2012).

Psychologists have their own opinions on the factors that create optimal collaboration with PHCPs as equal team members; until now, their voices were not documented. The present study specifically addressed this important gap in psychological research.

How psychologists want to work with PHCPs is unexplored. H. M. Williams, Parker, and Turner (2007) discussed differences in age and the resulting perceptions of team members that age affects teamwork. Sisira, Devlin, Thind, and Chu (2012) researched gender and age effects on the collaboration of physicians with other health care professionals, including psychologists, and found that there were gender effects in which female physicians collaborated with nurses more than their male counterparts and male physicians collaborated more with specialists in other professional health fields. Newer cohorts of physicians were more likely to collaborate with dieticians, physiotherapists, occupational therapists, and psychologists. The age effect was U-shaped for male physicians and inverse U-shaped for female physicians. However, the literature on psychologist–PHCP collaboration does not explicitly explore the effect of variables, such as age, years of practice, and fields of practice, from the psychologist's point of

view. Therefore, relationships of age, years of practice, and field of practice to collaboration were examined in the present study.

In the present study, an online survey was used to ask Canadian, registered psychologists to share their attitudes about collaboration with PHCPs.

Hepworth and Cushman (2001) suggested that higher forms of collaboration meant more contact and involvement with primary-care physicians. The forms of collaboration described by Hepworth and Cushman are listed in order from least contact to most contact:

1. classic form of referral and consultation (receive a referral form and send a written or verbal report),

2. informal collaboration/ corridor consultation (unscheduled, unstructured meetings to apprise colleagues of progress and general impressions of a case),

3. formal collaboration (teamwork, scheduled meetings to discuss pertinent aspects of care, including therapeutic progress, medication issues, concerns, and recommendations or prognoses),

4. co-provision of care (regular, frequent consultations/meetings and mutually agreed upon goals for client care), and

5. co-therapy (joint presence of psychologist and physician for some sessions with a client).

Doherty, McDaniel, and Baird (1996) noted that complex client situations will generally challenge less collaborative settings beyond their ability to manage adequately. This hierarchy of the five levels of collaboration assumes that the greater the level of systemic collaboration, the more adequate the management of complex cases is likely to

be. To assist with clarity, the levels described by Doherty et al (1996) and Hepworth and Cushman (2001) are referred to in the present study as *preferred forms*.

The present study described and identified the quality and extent of physician–psychologist collaboration and identify factors influencing the quality and extent of collaboration.

Advantages and Disadvantages of Online Surveys

The advantages of online data collection are the ease with which large numbers of respondents might be accessed and the opportunity for improved analysis. This method of collecting data is often inexpensive and time effective (Pealer & Weiler, 2003). The disadvantages include restricting access to only those who have a computer or access to the web and accepting the possibility that an email message may be easier to ignore than a letter sent through the postal service. Sue and Ritter (2007) reported that in Canada, 71% of the adult population goes online to access the Internet or the World Wide Web or to send or receive email messages. It was surmised that professionals, such as psychologists, used the Internet at a higher rate than the general public because of the scientific and business nature of their work. Indeed, it was reported that a growing number of psychologists use the Internet to develop their own web pages (Palmiter & Renjilian, 2003). Therefore, an online survey was a fitting way of accessing the opinions of Canadian psychologists.

The survey literature indicated that response rates averaged 30% for online surveys in which the questionnaire is located on a website and the participant clicks on a hyperlink in an email message or types the web address into a browser window. Email surveys in which the questionnaire is contained in the body of an email or included as an

attachment were reported to garner a response rate between 24 and 76% (Sue & Ritter, 2007). A response rate of 60% in a postal service delivered survey (which included the mailing of multiple reminders) was achieved and described by Schirmer (2009). Prior to data collection it was reasoned that the data collection procedures for the present study, which included aforementioned aspects, would be sufficient.

Research hypotheses. The concepts in the research hypotheses of this study were drawn from the published literature:

H1: There is a significant relationship between the perception of necessity for (Grenier et al., 2008) and preferred form of collaboration. The direction is unknown.

H2: There is a significant relationship between professional education and training (Anderson & Lovejoy, 2000; Arnett, 2001, 2006; Bluestein & Cubic, 2009; Bray, 2004, 2011; Bray & Rogers, 1997; Cubic et al., 2012; Eby et al., 2011; Garcia-Shelton & Levanthal, 2005; Garcia-Shelton & Vogel, 2002; Talen et al., 2002; M. J. White et al., 2013) and preferred form of collaboration. The direction is unknown.

H3: There is an inverse relationship between perspective of hierarchy (Ellingson, 2002; King & Cubic, 2005; Nugus, Greenfield, Travaglia, Westbrook, and Braithwaite, 2010; Orchard et al., 2005; Sanders et al., 2010) and preferred form of collaboration.

H4: There is a significant relationship between communication factors (Ellingson, 2002; Kainz, 2002; Nijhuis et al., 2007; Orchard et al., 2005; M. J. White et al., 2013) and preferred form of collaboration. The direction is unknown.

H5: There is a significant relationship between perception of accessibility and

preferred form of collaboration (Gatchel & Oordt, 2003; Grenier et al., 2008;

Pace et al., 1995 Sargeant et al., 2008). The direction is unknown.

H6: There is a gender difference in perceptions of hierarchy, with participants

identifying as female perceiving more hierarchy in their relationship with

PHCPs (Ellingson, 2002).

H7: Age, years of practice (Sisira et al., 2012) and field of psychology predict

preference for interprofessional collaboration.

Chapter II: Method

Participants

To gain accurate current information on possible participant numbers, all psychological associations in the Canadian provinces and territories were contacted to determine the current number of registered psychologists in Canada. At the end of the business year 2011, there were 15,377 licensed or registered psychologists in the country, and as of June 7, 2012, membership in the CPA was 6,558 (T. Stacey-Holmes, personal communication, June 7, 2012). Current registered Canadian psychologist population was obtained to calculate the representativeness of the present study's participant size of 349.

Inclusion/Exclusion Criteria

British Columbia, Ontario, and Manitoba, three of Canada's provinces, require that a fully registered psychologist hold a doctoral degree in clinical, counseling, or educational psychology; the remaining provinces allow master's level individuals to be considered fully registered psychologists. In some provinces master's level psychologists are in the majority. For instance, in New Brunswick, Newfoundland, and Labrador approximately 75% of psychologists are registered at the master's level. Because the reality in Canada is that both master's and doctoral-educated psychology professionals are eligible for registration as full psychologists, both levels of education were included as possible participants in the study.

Psychologists whose work does not take them into contact with individual clients (for example, psychologists whose only work is in industrial organizational settings) were screened out in the Invitation to Participate. Participants were not limited to those

psychologists working in a primary healthcare setting but also included private practice psychologists.

Ethics approval was obtained by the Antioch Institutional Review Board (see Appendix D).

Instrument

Scales of collaboration in healthcare have been developed by other researchers who have studied relationships among nurses, physicians, and other healthcare providers (Orchard, King, Khalili, & Bezzina, 2012; Pollard, Miers, & Gilchrist, 2004). However, none looked specifically at the collaboration between psychologists and PHCPs from the psychologists' point of view. Therefore, the need arose for an instrument that fit the aims of the current study. A survey was created for the purposes of this study, including items from a previous survey on the attitudes of physicians working with psychologists (see Appendices B and C for permission to use questionnaire items). Additional items thought to be relevant to the particular aims of this study, namely understanding the attitudes of psychologists in their professional work with PHCPs (see Appendix G) were included. Concepts affecting collaboration which were repeated in the collaboration literature were included; concepts which appeared less often were excluded.

The design of the study was an exploratory survey. A survey is a system for collecting information, beginning by defining objectives and ending with data analysis and reporting of results (Sue & Ritter, 2007). Surveys are used to describe or compare knowledge, attitudes, or behavior (Fink, 2003). The basic aim of survey research is to document the nature or frequency of a particular variable (in this instance, preferred form of collaboration) in a certain population, e.g., registered psychologists in Canada

(Heppner, Wampold, & Kivlighan, 2008). A survey was an appropriate method for the proposed descriptive study because the predictor variables of interest are easily measured with written survey questions. Strength of endorsement by respondents of statements about selected germane features of collaboration permitted measurement of attitudes toward collaboration.

Item generation was based on the relevant literature on interprofessional collaboration. Relevant literature on scale construction was consulted (Admiraal & Lockhorst, 2012; Brenner et al., 2007; Creswell, 2003; Fink, 2003; Garb, Wood, & Fielder, 2011; Nowlis, Kahn, & Dahr, 2002; Weijters, Geuens, & Baumgartner, 2013; Weinreb & Sana, 2009). After a comprehensive review of the literature that revealed common themes in collaboration between psychologists and PHCPs (Bray & Rogers, 1997; Holloway & David, 2005; Kainz, 2002; Pace et al., 1995; Witko et al., 2005) items were generated as part of the scale development process. To aid in content validity, clarity and the re-wording of double-barreled and redundant items, items were pilot tested with psychologists licensed in the United States as well as other health care professionals who would not be participating in the study (see Appendix E). Feedback from these pilot-testers aided in the development of the questionnaire used in the present study. Refining included adding open-ended text fields to six questions to elicit more complex information. This process resulted in 39 survey items.

Some survey items were drawn from a previous study on collaboration (Grenier et al., 2008). For example, question 36 asked about advantages for clients with improved collaboration with PHCP. This question appeared in Grenier et al. in their study of Quebec physicians and their opinions of collaboration with psychologists (see

Appendices B and C for permission to use questionnaire items). Respondents in that study were physicians who were asked their views on psychologist–physician collaboration. The items in the current study were inverted to reflect that participants in the current study were psychologists.

The present study survey responses required nominal, ordinal, and continuous responses. Most were recorded on a Likert-type scale that represented answers related to endorsement. In developing the survey, steps followed the sequence suggested by Jackson and Furnham (2000), including defining an objective (obtaining attitudes of psychologists about their collaboration with PHCPs), reviewing the relevant literature, formulating hypotheses that explain the research issues, and designing a survey to test hypotheses. The literature was then reviewed to determine common themes pertaining to psychologist–physician collaboration (Grenier et al., 2008; Witko, 2003). Education and Training (Anderson & Lovejoy, 2000; Arnett, 2001, 2006; Bluestein & Cubic, 2009; Bray, 2004, 2011; Bray & Rogers, 1997; Cubic et al., 2012; Eby et al., 2011; Garcia-Shelton & Levanthal, 2005; Garcia-Shelton & Vogel, 2002; Talen et al., 2002; M. J. White et al., 2013) and communication factors (Kainz, 2002; Nijhuis et al., 2007) were chosen as guiding factors in developing the questionnaire because they were cited numerous times in the literature as important factors in collaboration.

Qualitative questions regarding feedback, hierarchy, advantages of collaboration, barriers to collaboration, ways PHCPs could improve collaboration with psychologists, and ways that psychologists could improve collaboration with PHCPs were included to provide richness to the data and to explore emerging themes.

The psychometric properties (reliability and validity) of the instrument were tested using Cronbach's Alpha (Brenner et al., 2007), which provided an estimate of the consistency of the questionnaire items.

Questions 1-10 on the questionnaire were demographic questions designed to aid in the accurate description of the sample. Typical demographic questions were included, such as gender (1), age (2), years of practice (3), province or territory of work (4, 5), work setting (6, 7), field in psychology (8, 9) and type of educational degree (10). Questions 11, 12, 13, 14, 15, and 16 focused on education and training, specific to interprofessional primary healthcare issues. Question 16 asked about the percentage of psychologists' clients that were referred by PHCPs. Question 17 asked the percentage of clients the psychologists collaborated upon with PHCPs. Question 19 asked participants to indicate their level of agreement to the statement: "Do you provide feedback about referred clients to the referring physicians?" Question 20 asked participants to indicate their level of agreement to the statement: "Does the referring physicians provide you with ongoing assistance in your care of a referred client?" Question 21 asked participants to indicate their level of agreement to the statement: "I am comfortable giving feedback about a client to their primary healthcare physician." Question 22 was a qualitative question that asked participants to elaborate on question 22. Question 23 asked participants to indicate their level of agreement to the statement: "My Current collaboration with primary healthcare physicians is effective in optimizing client care." Question 24 asked participants to indicate their level of agreement to the statement: "There is a hierarchy in my relationship with the primary healthcare physicians with whom I relate in a professional capacity." Question 25 called for a qualitative answer;

participants were asked to elaborate on question 24. Questions 26, 27, 28, and 29 asked

for level of agreement to questions focused on accessibility of the psychologist and

PHCP for consulting with the other. Questions 26 and 27 referred to consultation for the

purposes of consulting about a mutual client. Question 26 asked participants to indicate

their level of agreement to the statement: "Primary healthcare physicians are accessible if

and when I want to consult with them about a mutual client." Question 27 asked

participants to indicate their level of agreement to the statement: "I am accessible if

physicians want to consult with me about a mutual client." Questions 28 and 29 referred

to consultation for the purpose of sharing specialized professional knowledge. Question

28 asked participants to indicate their level of agreement to the statement: "I am

accessible if physicians want to consult with me for the purposes of sharing my

psychological knowledge." Question 29 asked participants to indicate their level of

agreement to the statement: "Referring physicians are accessible to consult with for the

purposes of sharing their medical knowledge." Question 30 asked participants to indicate

their level of agreement to the statement: "Collaboration with my client's primary

healthcare physician is necessary for the care of my client." Question 31 asked

participants to indicate their level of agreement to the statement: "I feel respected by

primary healthcare physicians during periods of contact regarding patient care." Question

32 asked participants to indicate their level of agreement to the statement: "My education

is understood by the primary healthcare physicians with whom I come into contact"

(Haley et al., 1998). Questions 33 and 34 related to forms of collaboration (Hepworth &

Cushman, 2001) that the participants thought might be viable within their actual practice

(Q33) and forms of collaboration they would prefer (Q34). Question 35 asked the

participants to check off which, if any factors, on a list of 9 factors (Grenier et al., 2008) had an impact on the collaborative process with primary healthcare physicians. Questions 36-39 were open-ended questions about the advantages (Kainz, 2002) for clients of psychologists' collaboration with primary healthcare physicians (Q36), barriers (Kainz, 2002) to effective collaboration (Q37), suggestions for what PHCPs could do to improve collaboration with psychologists (Q38), and suggestions for what participants could do to improve collaboration with PHCPs (Q39).

To enrich the data, participants were provided text boxes with no size limit and asked to elaborate on six questions provided as additional items after selected quantitative questions.

Because a large percentage of registered psychologists in Canada are employed in the Province of Quebec and all registered psychologists in Quebec must be proficient in French to practice in that province, the survey was professionally translated by a Quebecois French translator. When terms may have been deemed awkward by the translator, an iterative, decision-making process between the researcher and translator was used (Forsyth, Kudela, Levin, Lawrence, & Willis, 2007) to determine whether a direct translation would be used or whether interpretation might be used to improve readability or internal validity of a question. For instance, when the translator indicated a direct translation might be awkward or not the usual turn of phrase understood by most French-speaking individuals, a more suitable word, still deemed to have the same meaning in English, was chosen. This iterative process was also used if a direct translation might have been deemed offensive to a participant, such as in the case of words that in direct translation referred only to the male pronoun. When using two or

more languages in a survey that aims to measure common themes, it is vital to ensure that the translation is accurate (Harkness, 2013; Weijters et al., 2013). Google Translate, a mechanical translator, was used to back translate the survey instructions and questionnaire to ensure accuracy and readability had been achieved. By inputting French translations into the mechanical translator, which were then translated into English, it was determined by the researcher that the French translations were accurate once they were translated back into English. Some researchers suggest that at least two separate forward translations are completed for cross-cultural surveys (Forsyth et al., 2007; Harkness, 2013). With the limited resources available for this study, only one forward translation was completed.

Creswell (2003) and Richards (2005) described qualitative data handling and analysis. In this study a text box with no size limit was provided for each open-ended answer. French qualitative data were professionally translated into English, and Google Translate was used to back-translate the answers to promote accurate understanding of participants' responses. A fundamental Thematic Analysis, which is a method in its own right, defined by Braun and Clarke (2006), was used to handle and analyze the data. Thematic analysis can be a constructionist method, which examines the ways events, realities, and experiences affect a range of discourses operating within society, or it can be an essentialist or realist method, which reports experiences, meaning, and reality of participants, as is the case in this present study (Braun & Clarke, 2006). Qualitative research studies in areas of health care are often descriptive in nature (Fade & Swift, 2010). Sandelowski (2000) argued the appropriateness of fundamental qualitative description for obtaining clear answers to questions of special relevance to practitioners

or policy makers, for example, the thoughts, feelings, and attitudes to an occurrence, service, or procedure. Bradley, Curry, and Devers (2007) opined that themes provide recurring and unifying ideas. An advantage of Thematic Analysis is that the method offers the ability to summarize key features of a large body of data, such as in the present study; it is a flexible qualitative method that is concise. A potential disadvantage of Thematic Analysis, when used with verbatim data, such as in online survey responses, is what gets left out (Poland & Pederson, 1998).

The verbatim data were transferred to computer generated spreadsheets which were then printed and collated in a binder. The data were read multiple times over several weeks with several days' rest between readings, to aid with familiarization of the data (Braun & Clarke, 2006). Because the data were entered in text boxes by the participants, there was no need for transcription, ensuring accuracy of the participants' responses. After several readings, initial codes were generated based on semantic content that appeared germane. The entire data set for each open-ended question was manually coded by making notes on the printed spreadsheets. When all the data were coded, they were grouped into potential themes. Sub themes were then established, and themes were named. Themes were reviewed for internal homogeneity and external heterogeneity (Braun & Clarke, 2006). After review, the data were grouped manually by themes of significance across the data set.

Themes of significance were established by looking at the data and determining that a major count or percentage of respondents provided the same or similar responses. Prevalence was counted in terms of the number of different participants who articulated the theme across the data set for each open-ended question. Themes were identified at a

semantic or explicit level. Quotations were chosen that were representative of the pattern as a whole. Outlier responses were included to enrich understanding of the breadth of responses.

Procedure

Participants. Registered psychologists working in Canada ($N = 349$; 126 male and 222 female) ranging in age from 24 to 80 years ($M = 51.71$ years, SD $= 11.89$ years) volunteered to participate. Informed consent was outlined in the Invitation to Participate and in the introduction to the survey. Consent was assumed by participation in the survey. Participants had the option of entering their name in a draw for one of six $50 gift certificates to an online book retailer.

Online survey tool. The current study used an online survey tool hosted by FluidSurveys (Fluidsurveys.com). Data were collected directly through respondent input into the survey, thus data input was not a required step in the present study. The data, including each response participants selected on the survey, were stored securely at the FluidSurveys, Montreal, Canada location. Data were sorted or filtered using FluidSurveys software and exported to Statistical Package for the Social Sciences for further analysis. Participants were given a web link to the survey and were told that the survey would take approximately ten minutes to complete. The survey consisted of an introduction to the survey, including the purpose of the survey and definitions of pertinent terms in the survey, such as *collaboration*, *interprofessional*, and *primary care*, and a statement of informed consent. Confidentiality of responses was assured. Participants were advised that a secure server was used and that responses would be stored in Canada, thus not subject to the Patriot Act of the United States, which would place participant

confidentiality at risk. Participants were informed that they could take the survey in either French or English.

Recruitment. Four stages were used sequentially to recruit participants and gather data. In Stage 1 of data collection, participants were invited to complete the survey through an advertisement on the CPA and provincial and territorial websites (see Appendix H for the application to advertise the proposed study on the CPA website). Stage 2 involved advertisement in the CPA and provincial and territorial newsletters. Stage 3 involved sending email messages to 1022 psychologists through the Registry of Canadian Health Providers and to the directors of all Canadian university counseling centers. In Stage 4, in an effort to increase response rate, email-message reminders were sent to psychologists listed on the Registry of Canadian Health Providers who had not opened the invitation and to the university directors who had not responded. The reminder was sent two weeks after the initial email invitation and three weeks later as a final follow up (Dillman, 2000; Heppner et al., 2008). It is not possible to know what proportion of the intended population of the study was reached through the various methods of advertisement and contact because participants were not asked to report how they came to know about the study. This was an oversight in the study.

Using Thorpe et al.'s (2008) suggestions for increasing participant response to surveys, participants were offered a chance to win one of six $50 gift certificates to a Canadian online bookstore; they were also offered the opportunity to receive survey findings delivered to their email address if they provided their name and contact information. Of the 349 participants, 124 entered their names for the draw for a gift

certificate, and 5 participants provided their contact information to receive a summary of results.

Ethical Considerations

Recruitment. Participants were recruited by advertising on the CPA and Canadian Provincial and Territorial psychological association websites, inviting registrants of the Canadian Health Registry, and contacting the directors of Canadian university counselling centers to request they pass on the Invitation to Participate to eligible staff persons.

Consent. Consent was assumed by participation in the survey. This was outlined in the introduction to the survey (see Appendix F).

Potential Risks. Potential risks to participants participating in the questionnaire in the present study were minimal, consisting of the level of risk encountered in daily life, such as feelings of discomfort. Risks were outlined in the introduction to the survey.

Confidentiality. Confidentiality was assured the participants in the instructions to the questionnaire. Internet Protocol (IP) addresses were not sought or collected. A feature in the survey software that had the capability to identify location of the participants was turned off to ensure that the location of the questionnaire respondents was not known. Participants who chose to enter their names in a draw for gift certificates that were incentives for participating in the survey voluntarily supplied their names and email addresses which were entered on a computer spreadsheet. At the conclusion of data collection, the names of the participants who chose to enter the draw were placed in a container and six names were drawn in a lottery method. The participants who received the gift certificates provided their mailing addresses so that they could receive the

bookstore gift certificates. Participants who requested a copy of the study results voluntarily provided their names and email addresses.

Incentives. Grant and Sugarman (2004) discussed the ethics of using incentives in human subjects research. For the professional population in this study, due to the low risk of harm involved in the survey questions and the small monetary amount of the incentive, the use of the incentive in this study was deemed to be ethically appropriate.

Chapter III: Results

The purpose of the current study was to better understand the relationships of demographics, such as age, gender, years of practice, and primary work setting, as well as constructs drawn from the relevant literature to the attitudes and practices of Canadian psychologists toward professional collaboration with PHCPs. Constructs include education and training, accessibility, and communication issues. The study involved a survey of 349 Canadian registered psychologists practicing in Canada and representing all Canadian provinces.

Using this population, a convenience sample size of 125 satisfied a 95% confidence level, medium effect size at the .01 level with power of .80 for the Analysis of Variance (ANOVA) statistic and was appropriate for t-test differences, Chi Square, and multiple-regression statistics (Cohen, 1992; Sue & Ritter, 2007). Using G*Power software (Faul, Erdfelder, Lang, & Buchner, 2007) for a two-tailed hypothesis, medium effect size, alpha set at .001, and a sample size of $n = 349$, the post hoc power $(1 - \beta)$ for this study was .99 ($df = 339$). This exceeded the .80 threshold presented in Cohen (1992).

The analysis used in this research was a combination of descriptive statistical analyses and qualitative analysis. Statistical tests used were Chi Square, point biserial correlation, ANOVA, Levene's Test of Equality of Error Variances and multinomial logistic regression analysis. These tests were chosen because they were appropriate to the research questions, hypotheses, and data collected. Qualitative data were assessed through essentialist Thematic Analysis, focusing on reporting on the meaning and reality for participants (Braun & Clarke, 2006).

Quantitative Results

    Demographics.

    Gender. A total of 349 registered psychologists completed the survey. Of the respondents, 222 (63.6%) identified themselves as female; 126 identified (36.1%) themselves as male ($N = 348$). One respondent did not enter an answer to the gender question. For this study, the question of gender was an open-ended question which asked, "What gender are you?" rather than providing binary or other gender categories.

    Age and years of practice. Mean age of the respondents was 51.71 years ($N = 346$; $SD = 11.89$). The minimum age of respondents was 24 years with a maximum age of 80 years. Measures of central tendency and variability for years of practice were $N = 346$, $M = 19.85$, $SD = 11.53$. Most respondents had 20 years experience as registered psychologists.

    Geographic location. Regarding province and territory, all provinces were represented for primary work location *($N = 347$)*. No registered psychologists who stated Yukon Territory, Northwest Territory, or Nunavut as a primary work location participated in the study. As a secondary work location, one psychologist listed Northwest Territory and Yukon Territory. The largest number of respondents identified the province of Quebec as their primary work location ($n = 91$; 26.2 %). British Columbia psychologists were second in number of respondents, ($n = 59$; 17%). Ontario was third with 15.3% ($n = 53$) of the total sample represented by that province. Other provinces followed: Alberta ($n = 38$; 11%); New Brunswick ($n = 34$; 9.8%); Manitoba ($n = 28$; 8.1%); Saskatchewan ($n = 24$; 6.9%); Nova Scotia ($n = 8$; 2.3%); Newfoundland and Labrador ($n = 7$; 2%) and Prince Edward Island ($n = 5$, 1.4%).

Workplace setting. Solo practice was the most frequent response for primary work setting (*N* = 345) with 37.1% (*n* = 128) of respondents selecting that response. Fifty-eight psychologists (16.7%) noted *Hospital* as their prime work location and 41 psychologists (11.18%) listed *Group Practice* as their primary work location. The remaining responses included settings, such as *Academic* (*n* = 23; 6.7%); *Community Health* (*n* = 19; 5.5%); *School Based* (*n* = 17; 4.9%); and *Community Social Services Agency, Community Counseling Agency,* and *Forensic,* each with 6 responses (1.73% for each). The category *Other* accounted for 11.2% (*n* = 41) and included such varied settings as Developmental Clinic, First Nations Band office, Tertiary Physical Rehabilitation Treatment Facility, Drug Rehabilitation Centre, On-line Substance Abuse Assessments, Rehabilitation Clinic, Police, and Private Treatment Center.

Many psychologists in this study divided their time between work settings; however, 100 (35.6%) of 281 psychologists identified that they had no secondary work setting. When identifying the secondary work setting, 27.8% (*n* = 78) claimed solo practice as their secondary work setting, 10.7% (*n* = 30) indicated academic as their secondary work setting, 8.18% (*n* = 23) indicated Other, which included settings, such as Private Practice *(n* = 5), Community Mental Health (*n* = 4), Community Addiction and Mental Health Services (*n* = 4), Medical Clinic *(n* = 3), Autism Clinic (*n* = 2) and the following, which each had one (*n* = 1): Private Practice in Medical Clinic, Department of National Defence, Performance Psychology, University Training Clinic, Neurological Rehabilitation Center, Military Mental Health, Family Health, and Provincial Teacher's Society. Sixty eight participants (19.5 %) did not enter any response to the item.

Main field in psychology. Of 349 respondents, 230 (67.1 %) indicated *Clinical* as their main field. The second most common field was *Other*, (8.6%), which included

Counselling (*n* = 17), *School* (*n* = 4), *Business* (*n* = 2), *Behaviour* (*n* = 2), *Psychopharmacology* (*n* = 1), *Clinical Forensic* (*n* = 1), *Generalist* (*n* = 1), *ADHD* (*n* = 1), and *Post Traumatic Stress* (*n* = 1).

     Education. For type of educational degree (highest level of education) that pertained to their work as psychologists (*N* = 347), 159 participants indicated that they possessed a PhD in Clinical Psychology (accounting for 45.8% of the total sample). The remaining are listed as follows: MA in Psychology (*n* = 54; 15.6%), PhD in Counselling psychology (*n* = *3*3; 9.56%), MS in Psychology (*n* = 19; 5.48%), PhD in Educational Psychology *(n* = 9; 2.6%), and MFT (*n* = 1; .29%). A notable number (20.5%) indicated *Other,* which included Maitrise en Psychologie (Master of Psychology) (*n* = 13; 3.75%), MEd (*n* = 9; 2.6%), PsyD in Clinical Psychology (*n* = 6; 1.73%), PhD Psychology (*n* = 4; 1.15%), and PhD in School Psychology (*n* = 4; 1.15%). The following fell into one group (*n* = 2; .58% each): PsyD in Psychology, PhD in School and Child Clinical Psychology, PhD in Educational Psychology, PhD in Cognitive Psychology, MEd in Counselling Psychology, MS in Counselling Psychology, MA in Counselling Psychology, MA in Counselling, and Master of Counselling. The following fell into one group (*n* = 1; .29% each): Doctor of Psychology, PhD in School Psychology: Research and Intervention, PhD in Psychotraumatology, PhD in Experimental Psychology, PhD in Social and Philosophical Psychology, PhD in Applied and Developmental Psychology, PhD in Applied Psychology, PhD in Community Health Psychology, PhD in Sociology and Pegagogie, MSc in Counselling Psychology, MPhil, MSc in Clinical Psychology, MEd in Psychology and Measurement, MEd Psychology, MA Pastoral Studies, Post PhD Jungian Analyst, BSc Pharmacology & Doctorate of Theology in Counselling, and

Training in Clinical Psychology. Overall 67.8% (n = 234) reported that they were trained

at the doctoral level, and 31.88% (n = 110) reported that they were trained at the master's

level. One participant (.289%) who answered this question did not indicate the degree.

Two participants did not answer the question.

      Interprofessional training. Interprofessional education and training were

captured on seven survey items (11, 12, 13, 14, 15, 16, and 32). Areas that were captured

were education or training in medical issues, internship in a medical setting,

interprofessional education as part of a graduate program, training in an interprofessional

setting, educational preparation for collaboration with PHCPs, the need for psychologists

to be better trained regarding the identification of medical issues, and the understanding

of psychologists' training by PHCPs. With regard to interprofessional training, the

majority (n = 239; 69.5%) endorsed having received education or training in medical

issues (Question 11). With regard to interning in a medical setting (Question 12), the

majority (n = 206; 59.5%) endorsed that they interned in a medical setting. The majority

(n = 215; 62.5%) reported that they received training in an interprofessional setting

(Question 14). However, only 37.5% (n = 127) endorsed having received

interprofessional education course work as part of their graduate programme (Question

13). Question 15 was a Likert scaled question, asking for level of agreement to the

statement: "My education prepared me well for collaboration with primary care

physicians." Results were N = 345, Min = 1; Max = 5; M = 3.07; SD = 1.26. Question 16

asked the level of agreement to the statement: "Psychologists need to be better educated

and trained regarding the identification of medical problems in patients." Results were

N = 347; Min = 2; Max = 5, M = 4.14; SD = .77. Question 32 (N = 344) asked for level of

agreement to the statement "My education is understood by the primary healthcare physicians with whom I come into contact." Only 45.6% of the participants either Strongly Agreed (8.72%) or Agreed (36.9%) that PHCPs understood their education.

Participants were asked what percentages of their clients were referred by PHCPs (Question 17) and on what percentage of their clients they collaborated with PHCPs (Question 18). Responses to question 17 ranged from 0% -100% ($N = 344$; $M = 35.0$; $SD = 29.1$; Mode 50). Responses to Question 18 also ranged from 0% to 100% ($N = 343$; $M = 28.11$; $SD = 28.85$: Mode 10). Question 19 was a Likert item asking participants if they provided feedback about referred clients to the referring physician ($N = 341$; Strongly Agree, $n = 89$; Agree, $n = 149$; Neutral, $n = 47$; Disagree, $n = 38$; Strongly Disagree, $n = 4$; Not Applicable, $n = 15$). Question 20 asked participants if they received ongoing assistance from the PHCP in the care of a referred client. The results for Question 20 were as follows: ($N = 335$; Strongly Agree, $n = 20$; Agree, $n = 89$; Neutral, $n = 79$; Disagree, $n = 85$; Strongly Disagree, $n = 49$; Not Applicable, $n = 13$).

Factors affecting collaboration. In Question 35, participants were asked to select factors from a list of nine that were noted as important in the collaboration literature (Grenier et al., 2008). Participants noted which factors they thought had an impact on the collaborative process with PHCPs ($N = 339$; 1395 responses). Results for the factors are ordered according to frequency: (1) How each views the other's professional role ($n = 215$; 15.41%), (2) PHCPs accessibility to the psychologist ($n = 207$; 14.84%), (3) Psychologists' accessibility to the PHCP ($n = 190$; 13.62%), (4) Theoretical/ ideological orientation ($n = 144$; 10.32%), (5) Common professional language ($n = 142$; 10.18%), (6) Information on the other's expertise ($n = 142$; 10.18%), (7) Working style

/technique (*n* = 140; 10.04%), (8) Expectations of assessment and treatment (*n* = 132; 9.46%), and (9) The view of who if anyone, "owns" the working relationship with the client. For example, between some professions, there may exist a "turf war" (*n* = 83; 5.95%). In the participants' responses, factors were seen as more or less important to the collaborative process with PHCPs. The view of each other's professional roles was expressed most frequently as impacting the collaborative process, with PHCP accessibility to the psychologist being a close second. The concept of a possibility of a "turf war" impacting the collaborative process was expressed the least. Theoretical/ ideological orientation; Common professional language; Information on the other's expertise; Working style /technique were all within .28% of each other, between the 10.0% and 10.3% range. Including Expectations of Assessment and Treatment, five factors were within .86 % of each other in response percentage.

Type of collaboration/interaction.

Viable collaboration. One hundred and forty nine respondents of 344 participants (43.3%) said that the *classic form of referral and consultation,* involving a formal referral and a report back to the referrer (which is considered the form of collaboration with the least contact), was the most viable in their current practice, *with informal collaboration* (17.4%) and *formal collaboration* (17.4%) making up another 35% of the forms of viable collaboration (Q33). The literature referred to these different forms of collaboration as levels (Doherty, 1995; Hepworth & Cushman, 2001).

Preferred collaboration. Only 59 respondents of 341 participants (17.3%) preferred the classic form of referral and consultation (Q34). Over 80% of the sample preferred forms of collaboration with more contact. Eighty-eight respondents said they

preferred informal collaboration (25.8%), and 104 (30.5%) indicated they preferred

formal collaboration. Informal collaboration was defined as corridor consultations

characterized by unscheduled and unstructured meetings to apprise colleagues of progress

and general impressions of a case. Formal collaboration was defined as teamwork and

scheduled meetings to discuss pertinent aspects of a case, including therapeutic progress,

medication issues, concerns, recommendations, or prognoses. Respondents who preferred

co-provision of care, defined as regular, frequent consultations and meetings and

mutually agreed upon goals for client care, accounted for 18.5% of the responses. The

remaining respondents (6.5%) replied "Other." Table 1 shows results of viable forms of

collaboration. Table 2 shows results of preferred forms of collaboration. From these

results it appears that although the classic form of referral and consultation was

considered most viable by psychologists in the sample, study participants would prefer

closer forms of collaboration, with more than 75% preferring a closer form of

professional contact.

Table 1

Type of Collaboration Most Viable

		Frequency	Percent
Valid	classic form of referral and consultation	149	43.3
	informal collaboration	60	17.4
	formal collaboration	61	17.7
	co provision of care	25	7.3
	co therapy	1	.3
	none	8	2.3
	other	40	11.6
	Total	344	100.0
Missing		5	
Total		349	

Note. See Appendix J for responses to "other" category.

Table 2

Type of Collaboration Preferred

		Frequency	Percent
Valid	classic form of referral and consultation	59	17.3
	informal collaboration	88	25.8
	formal collaboration	104	30.5
	co provision of care	63	18.5
	co therapy	3	.9
	none	2	.6
	other	22	6.5
	Total	341	100.0
Missing		8	
Total		349	

Note. See Appendix K for responses to "other" category.

Research and Null Hypotheses With Data-Analysis Strategies

For several hypotheses (H1, H3, H4, H5), point biserial correlation analysis was used to test the hypotheses. The point-biserial correlation (r_{pb}) is a special case of the Pearson product-moment correlation. One criterion for the Pearson product-moment correlation is that both variables should be continuous. In calculating point-biserial correlation, either the predictor or criterion variable must be nominal. The other variable is interval/ratio or quasi-interval.

Hypothesis 1: Perceived necessity for collaboration and preferred form of collaboration. In this study, perception of the necessity for collaboration was a quasi-interval measured item, while preferred form of collaboration was nominal. It was hypothesized that a significant relationship existed between the perception of necessity for and preferred form of collaboration.

The relationship between the criterion variable type of collaboration/interaction preferred and predictor variable perceived necessity was positive, r_{pb} (680) = .144, $p < .01$. Although the size of the co-efficient was not large enough for meaningful inference, this level of significance may indicate that these relationships were not likely to occur by chance.

Hypothesis 2: Education and training and preferred form of collaboration. Education and training were presented in the collaboration literature as central to the outcomes of working relationships between physicians and psychologists (Anderson & Lovejoy, 2000; Arnett, 2001, 2006; Bluestein & Cubic, 2009; Bray, 2004, 2011; Bray & Rogers, 1997; Cubic et al., 2012; Eby et al., 2011; Garcia-Shelton & Levanthal, 2005; Garcia-Shelton & Vogel, 2002; Talen et al., 2002). The current study tested the hypothesis that a significant relationship existed between psychologists' education and training and their preferred form of collaboration with primary healthcare physicians.

A chi-square test was performed to determine if there was a significant difference found between observed and expected values of the relationship between type of educational degree pertaining to work as a psychologist and preferred type of collaboration, nominal levels of measurement. There was a statistically significant association noted in the contingency table of observed frequencies between type of educational degree and type of preferred collaboration, $\chi2$ (36, $N = 340$) = 52.34, $p < .05$. The observed versus expected frequencies differed most in the area of preferred form of collaboration of informal collaboration for psychologists trained at the PhD level in Clinical Psychology. In this area there was an increase of almost 25% of observed frequencies (50) over expected frequencies (40.4). Although there was a statistically

significant positive correlation, the relationship between the variables was weak

($V = .160$, $p < .05$).

Hypothesis 3: Perceptions of hierarchy and preferred form of collaboration.

The third hypothesis was related to a factor discussed in the literature on interprofessional

collaboration but not previously tested: perceptions of hierarchy. It was postulated that

perceptions of hierarchy were related to preferred forms of collaboration. Quasi interval

data were collected in Survey Item 24, which stated, "There is a hierarchy in my

relationship with the primary healthcare physicians with whom I relate in a professional

capacity." Nominal data were collected on Survey Item 34, which asked for a response to

a level of preferred form of collaboration previously explicated in the relevant literature

on collaboration. Point biserial correlation was again calculated resulting in r_{pb}

$(640) = .000$, p = .498, one tailed. In this case, the null hypothesis was the best

explanation of the data.

Hypothesis 4: Communication factors and preferred form of collaboration.

Factors in communication are represented in the relevant literature as being important to

interprofessional collaboration (Ellingson, 2002; Kainz, 2002; Nijhuis et al., 2007;

Orchard et al., 2005; Sargeant et al., 2008; M. J. White et al., 2013). This hypothesis

focused on determining whether there was a significant relationship between

communication factors and preferred form of collaboration.

Items that illuminated communication factors for this hypothesis were Items 19,

"Do you provide feedback about referred clients to the referring physician?", 21, "I am

comfortable giving feedback about a client to their primary healthcare physician" and 31,

"I feel respected by primary healthcare physicians during periods of contact regarding

patient care." These were combined for the variable, communication factors. Responses to these questions were analyzed using point biserial correlation analysis. The correlation between communication items and preferred form of collaboration was not statistically significant (r_{pb} (680) = .032, p = .277).

Hypothesis 5: Accessibility and preferred form of collaboration. Accessibility, another construct presented in the literature as being important to collaboration, was tested to determine its relationship to preferred form of collaboration. Participants responded with a level of agreement based on a Likert Scale for these quasi-interval items. Using point-biserial correlation, correlation between perception of accessibility and preferred form of collaboration was not statistically significant (r_{pb} (680) = .011, p = .422).

Hypothesis 6: Gender and perceptions of hierarchy. In the survey questionnaire participants were asked, "What gender are you?" This question was deliberately designed to be open-ended to be inclusive of individuals who define their gender as a non-binary social construct. Of the 348 respondents who answered the gender question, no respondent answered outside the binary. Therefore, gender was treated as a dichotomous variable, and Levene's Test of Equality of Error Variances was used to test equality of variances for gender. Levene's Test of Equality of Error Variances was an appropriate test in this case because it is important to test the assumption that variances of the population from which this study's samples were drawn were equal. Levene's test assesses the null hypothesis that the population variances for perceptions of hierarchy for different genders have homoscedasticity, or are equal. By analysis, it was determined that homogeneity of variances was satisfied at p = .851. An ANOVA was used to determine

if there were statistically significant differences in gender group means. Results suggested that there was no statistically significant difference in group means based on gender, F (127) = .296, NS.

Hypothesis 7: Age, years of practice, field of psychology and preference for interprofessional collaboration. Multinomial regression analysis was used to determine if age, years of practice, and field of psychology could be used to predict interprofessional collaboration. Bivariate scatter plots for these variables indicated a linear relationship before regression was performed. The use of categorical variables in linear regression requires dummy coding of the nominal categories, using a reference group. With 65% of the sample indicating *clinical* for field of psychology, it was used as the reference group (clinical = 0, others = 1) with criterion variable = composite score of items Q15–16, 19, 23–24, 26–27, 29–32. The result (R^2 = .020, F (3,339) = 3.365, p <.05) indicated when preferred form of collaboration was predicted it was found that age (ß = .130, p<.05), years of practice (ß = .042, p<.05) and main field in psychology (ß = .023, p<.05) were significant predictors in the full model. Of the three predictors, age was the strongest, but as a single predictor it was not significant. The amount of variance of preferred collaboration explained by the variables is small (2%).

Interprofessional Collaboration Composite

To explore further relations in the data, the responses to 16 survey items regarding education and training and communication (including feedback, perception of hierarchy in the relationship) and accessibility were combined to form an Interprofessional Collaboration Composite. See Table 3 for results of the Interprofessional Collaboration Composite. Descriptive statistics were calculated for the Composite scores. All items

excluding 17 and 18 collected data on a quasi-interval data based on a 5-point Likert

scale (Reinard, 2006; J. White, 2013). For the composite, categories of agreement were

reversed so that a higher score meant more agreement. Items 17 and 18 collected

percentage scores. The composite measure aimed to incorporate several domains of

information about collaboration between the two professions, weigh each component

appropriately, and combine all into a singular, scalar quantity (Organisation for

Economic Co-operation and Development, 2008). Some items were excluded after

descriptive statistics were calculated to ensure validity of the composite. These were

items, 17, 18, 20, 21, and 28. Six of the items clustered around the average score of

Neutral, which equates to a score of 3 on the 5-point scale. These items were (Q15) "My

education prepared me well for collaboration with primary healthcare physicians"

($M = 3.07$, $SD = 1.2$); (Q20) "Does the referring physician provide you with ongoing

assistance in care of a referred client?" ($M = 2.83$, $SD = 1.17$); (Q24) "There is a

hierarchy in my relationship with the primary healthcare physicians with whom I relate in

a professional capacity" ($M = 2.99$, $SD = 1.17$); (Q26) "Primary healthcare physicians are

accessible if and when I want to consult with them about a mutual client" ($M = 3.16$,

$SD = 1.20$); (Q29) "Referring physicians are accessible to consult with for the purposes

of sharing their medical knowledge" ($M = 3.16$, $SD = 1.12$); and (Q 32) "My education is

understood by the primary healthcare physicians with whom I come into contact"

($M = 3.14$, $SD = 1.13$). However, two questions garnered responses of between 4 and 5

(*Agree* and *Strongly Agree*). These were (Q28), "I am accessible if physicians want to

consult with me for the purposes of sharing my psychological knowledge" ($M = 4.5$,

SD = .52) and (Q21) "I am comfortable giving feedback about a client to their primary healthcare physician" (*M* = 4.26; *SD* = .84).

The mean for this composite score was 3.57 (*N* = 347, *SD* = .50) with a minimum of 2.36 and a maximum of 4.82. Most item means hovered around the overall mean for the composite, which was 3.57. Four items gained the strongest agreement: (Q28) "I am accessible if physicians want to consult with me for the purposes of sharing my psychological knowledge" (*M* = 4.53, *SD* = .523); "I am comfortable giving feedback about a client to their primary care physician" (*M* = 4.26, *SD* = .837); "I am accessible if physicians want to consult with me about a mutual client" (*M* = 4.51; *SD* = .622); and "Psychologists need to be better educated and trained regarding the identification of medical problems in clients" *(M* = 4.14, *SD* = .774). The lowest item mean was 2.83 for "The referring physician provides you with ongoing assistance in care of a referred client (*M* = 2.83, *SD* = 1.17). This was closely followed by "There is a hierarchy in my relationship with the primary healthcare physician with whom I relate in a professional capacity" (*M* = 2.99, *SD* = 1.17). Results suggested that for these items, the average response was approaching the mid-point or *Neutral.* Items with a low standard deviation, with data points clustered around the mean, indicated that these items were representative of the sample (Salkind, 2007).

Summarizing the quantitative analysis, several factors were tested for their relationships to the dependent variable: preferred form of collaboration. These were perceived necessity of collaboration, education and training, perceptions of hierarchy, communication factors, accessibility, gender, and age, years of practice, and field of psychology. Statistically significant relationships were found between two of these

predictor variables: perceived necessity of collaboration and type of educational degree and the criterion variable: preferred form of collaboration. Participants who perceived a necessity for collaboration were more likely to prefer a closer form of collaboration with PHCPs than participants who did not. Psychologists trained at the PhD level in Clinical Psychology preferred collaboration defined as Informal Collaboration (Corridor consultation—unscheduled, unstructured meetings to apprise colleagues of progress and general impressions of a case). Significance was also found among the variables age, years of practice, and field of psychology and the criterion variable preferred form of collaboration. This suggested that how closely a psychologist prefers to collaborate with a PHCP is influenced by these factors. The relationships were weak, indicating that other unknown factors likely had more influence on preferred form of collaboration.

Table 3

Descriptive Statistics (N = 347, M = 3.57, SD = .50)

	N	Minimum	Maximum	Mean	Std. deviation
(Q15)My education prepared me well for collaboration with primary healthcare physicians.	345	1	5	3.07	1.26
(Q16)Psychologists need to be better educated and trained regarding the identification of medical problems in clients.	347	2	5	4.14	.77
(Q17)What percent of your clients come from referral by primary healthcare physicians?	339	.0	100.0	35.745	28.93
(Q18)What percent of your clients do you collaborate upon with primary healthcare physicians?	336	.0	100.0	27.778	28.43
(Q19)Provide feedback about referred clients to the referring physician.	327	1	5	3.86	.99
(Q20)Referring physician provide you with ongoing assistance in care of a referred client.	323	1	5	2.83	1.17
(Q21)I am comfortable giving feedback about a client to their primary healthcare physician.	345	1	5	4.26	.84
(Q23)My current collaboration with primary healthcare physicians is effective in optimizing client care.	331	1	5	3.61	1.10
(Q24)There is a hierarchy in my relationship with the primary healthcare physicians with whom I relate in my professional capacity.	323	1	5	2.99	1.17
(Q26)Primary healthcare physicians are accessible if and when I want to consult with	335	1	5	3.16	1.20

	N	Minimum	Maximum	Mean	Std. deviation
them about a mutual client.					
(Q27)I am accessible if physicians want to consult with me about a mutual client.	339	1	5	4.51	.62
(Q28)I am accessible if physicians want to consult with me for the purposes of sharing my psychological knowledge.	336	3	5	4.53	.52
(Q29)Referring physicians are accessible to consult with for the purpose of sharing their medical knowledge.	333	1	5	3.16	1.12
(Q30)Collaboration with my client's primary healthcare physician is necessary for the care of my client.	343	1	5	3.81	.89
(Q31)I feel respected by primary healthcare physicians during periods of contact regarding patient care.	335	1	5	3.87	.88
(Q32)My education is understood by the primary healthcare physicians with whom I come into contact.	339	1	5	3.14	1.13
Valid N (list-wise)	271				

Note. Interprofessional collaboration composite (Mean score for items Q15–16, 19, 23–24, 26–27, 29–32).

Qualitative Analysis

In addition to the quantitative analysis already discussed, the current study gathered considerable qualitative data from participating psychologists in the form of open-ended answers to six survey questions. The qualitative data were handled using Thematic Analysis (Braun & Clarke, 2006) as described in the Methods section.

Qualitative Responses to Open-Ended Survey Questions

The statement, "I am comfortable giving feedback about a client to their primary healthcare physician" (Q21) was presented in the study questionnaire to gather information about a variable (communication factors: feedback) cited in the literature as something psychologists refrained from doing yet was important to collaboration with primary healthcare physicians. Participants were asked to rate the statement on a 5-point Likert scale from Strongly Disagree to Strongly Agree. The following item (22) was "Can you please elaborate?" This pattern of Likert-scaled item followed by a question asking for elaboration was used for the six qualitative questions. Questions for elaboration were chosen on the basis that they addressed an area strongly suggestive of importance to healthcare collaboration in previous studies (communication factors and barriers) and two areas suggested in the wider collaboration literature (advantages of collaboration and hierarchy). Two more questions were added to elicit participants' views on how PHCPs and registered psychologists could improve collaboration with members of the other profession.

Feedback. With regard to feedback about clients, participants provided 303 responses to the open-ended item number 22. Forty-three participants left the field blank, and three indicated they did not understand the question. The themes that were found are communication, informed consent, feedback as best practice, reporting, relationship as a factor in feedback, the impact of setting on feedback, and time constraints in providing feedback.

Communication in feedback. Communication was the most significant theme with 92 responses (representing 30.4%) identifying how communication issues related to

feedback. Fifty-four responses (17.8%) referred to the quality of communication in feedback exchanges. Twenty responses (6.6%) referred to how the respondents' experience was affected by how feedback was received by primary healthcare physicians. Eleven (3.6%) responses referred to feedback as being one sided, meaning that psychologists offered feedback, but feedback was not reciprocated by physicians.

Informed consent. Informed consent is a hallmark of the professional relationship between a psychologist and client. When elaborating on responses to the Likert-scale question regarding feedback to primary healthcare physicians, 68 respondents (22.4%) indicated they would provide feedback with the consent or permission of their client.

Feedback as best practice. Best practice was another broad theme among respondents when asked about comfort in providing feedback to primary healthcare physicians about their clients. Forty-five responses (14.9%) referred to the issue of best practice. Most respondents who wrote about feedback and best practice indicated it was important for best practice that feedback occur.

Reporting. Reporting was another theme with 30 (9.9%) responses referring to the type of feedback they provide. Most (27; 8.9%) referred to written letters and consultation notes.

Relationship as a factor in feedback. Many respondents (24 responses, 7.9%) mentioned relationship when expanding on their quantitative answer about providing feedback to primary healthcare physicians. While many comments on relationship and feedback expressed positive aspects of the relating, not all did.

The impact of setting on feedback. There were 25 responses to setting (8.3%). Setting was an area in the literature deemed to affect the quality of interprofessional

collaboration. The respondents in this study also expressed that setting was related to feedback. All of the quotations below in Table 4 are responses to the feedback question.

Time constraints in providing feedback. Time, as a significant collaboration issue, appears as a response to many of the open-ended questions (18 responses, 5.9%).

See Table 4 below for a summary of the responses regarding feedback.

Table 4

Feedback

Themes	No. of Responses	% of N	Representative Samples of Comments From Participants
Communication in Feedback	92	30.4%	R: I feel free to communicate my impressions.
			R: More often the physicians refuse communication. They don't have the time or the interest.
			R: I am often nervous commuicating with a physician, but have always been pleasantly surprised by their positive response. I have had poorer response when I suggest change in medication.
			R: There are no case discussion meetings. Everyone seems to do their own thing individually. Each to himself. Unless there is an emergency, then I have to talk to their physician, and for some, it would seem to bother them in a way that sets them back in their schedule.
			R: Depending on the physician, but they are rarely consulting us, and when we contact them, I don't feel that they have the time for me or that they are interested in my input.
			R: The physicians and psychiatrists with whom I work are strongly opinioned about their clients and strategies. They are frequently closed to alternative perspectives and have little respect for staff who do not work as health providers. As such, providing feedback and discussing alternative diagnostic considerations and healing strategies often results in conflict or limited common ground.
			R: They are not always open to my expertise, but I continue to try.
			R: I can give feedback, however, I get nothing in return. Info with the doctors seems to be a one-way street.
			R: I always have open and supportive feedback from the physicians I talk to. It is usually beneficial for both professionals.
Informed Consent	68	22.4%	R: Confidentiality is central to my practice - would be willing to discuss client information with client consent/assent and parental consent.
			R: With client's authorization, I gladly share any useful information which can enhance the quality of medical and psychological treatment.
			R: Should I need to give information, and the client's informed, written consent, I would have no difficulty doing so.
			R: I am comfortable as long as the client consents.
			R: I agree only if the patient gives permission and only to discuss areas pertinent to the specific issues.

			R: If the client agrees to this exchange between me and his physician. If yes, I can give suggestions about a work leave or its length. Or give commentaries about a medication or referring to a specialist.
Feedback as Best Practice	45	14.9%	R: Information exchange is extremely important. Could be useful for the physician to adjust medication or change the type of medication. R: I believe this is important for best care practices. If the treatment requires both psychological and medical, communication is important. R: Whatever is necessary for good care. R: Providing my client has signed an authorization form, we can collaborate to maximize our client's ability to achieve their goal.
Reporting	30	9.9%	R: I send a consultation note, and sometimes will call to speak with the physician. R: I think this is vital to assist a client in their recovery process. Feedback is given via a written report (always) and occasionally verbally. R: With the consent and input of the client, I frequently write letters to the physician with feedback regarding response to medications, changes in symptoms and often issues that might arise. R: I always send a report to the referring physician. R: Physicians who refer patients to me do not usually request a formal reply to their referral. I like to provide information on the patient's progress; this is either done through a letter by me or by feedback provided by the patient. R: If there is information I feel needs to be shared with a phyician regarding a client's care, I will send them/fax them a letter. R: Succinct psychological report with recommendations. Work leave discussions, reevaluation of medication, complimentary paramedical resources, suggestions, etc.
Relationship as a Factor in Feedback	24	7.9%	R: I have an outstanding relationship with the majority of primary healthcare physicians with whom I consult. R: I am very comfortable working with physicians, both primary and specialized. R: Always had a collaborative relationship with referring physicians. R: I am not intimidated if that is what the question is asking. R: Most of my referrals are from physicians who have referred patients to me for many years, and with whom a good professional relationship has been established.

			R: I have an excellent working relationship with the physicians I work with.
			R: These relationships have always been positive. Physicians are very receptive to feedback.
			R: On the contrary, I do not think the physician would listen to me. The physician tells me how to do therapy, which I find insulting because I've been trained specifically for this.
The Impact of Setting	25	8.3%	R: In my work in the hospital setting, clients are made aware that sharing pertinent information regarding their care with the physician is standard practice. In private practice, I ask clients to sign a release of information for their physician so I can consult with him/her regarding care and medication if applicable.
			R: Prior to becoming a psychologist I was a trained medical laboratory technologist. Once I had completed my psychology training I worked for the provincial government in many, many small towns where the only assistance for residents was their physician and/or psychologist...An *excellent* (emphasis added) training environment for collaboration - but not for the timid or clumsy.
			R: I was trained in an emergency department, so giving "report" was a conventional practice which I try to continue.
			R: Collaboration varies tremendously between practice settings. In my private practice, I rarely collaborate, but in my work in the community (autism service provision) collaboration is more likely, though only when complex needs arise that require it.
			R: We have rounds where we discuss patients as a care team. I also go to the clinic to discuss specific patient issues with the cardiologists.
			R: I work directly with a physician in a hospital setting.
Time Constraints in Providing Feedback	18	5.9%	R: Physicians difficult to contact by phone, no time for sharing.
			R: Difficult to find common free time.
			R: I do so when necessary, related to the care of the client. If not, I'm too busy to just give feedback. Reports are all given to doctors, however.
			R: I am happy to consult with physicians, but they rarely have time or interest in consulting with me.
			R: I feel comfortable but find my time is already so limited.
			R: Physicians are generally open to hearing info on their patients if the consult is brief.
			R: Most of the time, they don't have the time.
			R: I think if I could collaborate with the physicians it would be much better care. The excuse I get from physicians is that they are too busy although I am willing to make time to speak with them because I think it is really important.

Hierarchy in collaboration. The statement, "There is a hierarchy in my relationship with the primary healthcare provider with whom I relate in a professional capacity" (Q24) was posed in the study questionnaire. The corresponding open-ended answers to Question 25 garnered the following pattern of responses. Based on Thematic Analysis of the responses, themes were established. The themes were: experience of hierarchy, equality, respect, it depends on the physician, psychologist higher in the hierarchy, and outlier. See Table 5 for a summary of responses to item 24 regarding hierarchy in collaboration.

Experience of hierarchy. Of 293 respondents (83.95% of *N*) to this item, 107 (36.5%) indicated they experienced hierarchy in their relationship with primary healthcare physicians in which they recognized that, as a psychologist, they were considered to be lower in the hierarchy or they felt lower in the hierarchy in the relationship with physicians. Some respondents also provided a reason they considered psychologists might be perceived to be lower in the hierarchy. The reasons ranged from societal worth ascribed to the two professions, the strictures of the current healthcare system, physicians having the "final word" in hospital settings (because of medication and perceived personality attributes of physicians as a group). Six percent (*n* = 19; 6.4%) of this group specifically used the word "god" or "ego" in reference to the way physicians see themselves and the perceptions of the respondents that physicians have "big egos." In quantitative analysis, hierarchy did not appear to be a statistically significant concept. This will be addressed further in the discussion chapter.

Equality. Nineteen responses (6.5%) expressed the themes of equality and respect. Seventeen respondents used variations of the word *equal* to describe how they perceived their working relationships with PHCPs.

Respect. Mutual Respect was also expressed by many of the respondents (27; 9.2%).

It depends on the physician. Some respondents (12; 4.09%) experienced different experiences of a hierarchical relationship with different physicians and expressed that hierarchy in the relationship depended on the physician.

The psychologist is higher in the hierarchy. A few psychologists (3; 1.02%) indicated that because of their advanced training, experience, or reputation, they thought they were perceived higher in the hierarchy or experienced a "reverse hierarchy."

Outlier. Three respondents (1.02%) provided outlier responses.

Table 5

Hierarchy in Collaboration

Themes	No. of Responses	% of N	Representative Samples of Comments From Participants
Experience of Hierarchy	107	36.5%	R: The health care system imposes a hierarchy in which the phycians are more important. R: Physicians are more respected. R: The doctors act as though they are the case managers, when in fact, they spend far less time with their clients providing assessment and intervention. They also do not confirm any diagnosis. R: I believe the doctors expect that we respect their "superiority" hierarchical, as if they were the primary care givers for this person, which is not always the case. R: I feel that the doctor is over me hierarchically when in reality I have an equally strong training and we are not in the same establishment (no formal hierarchy). R: Phycians struggle with the fact that psychologists don't want to be told what to do. R: Does the term God mean anything? R: Physicians seen as doctors, psychologists seen as counselors. R: Doctors think there is a hierarchy with them on top, but I disagree. R: Doctors consider themselves to be the Emperors of the Health System. R: Medicine first and then the other professions. R: We feel that it is they who hold the power and expertise to make decisions. We have power to make recommendations that can be considered or not. R: Ego. R: Reverse hierarchy here, since I train so many family practice residents, I am considered the authority in behavioral health and counseling. R: MDs have a big ego. R: MDs is tops. R: Unfortuately our society puts medical expertise higher than mental health expertise - both are equally important and often interrelated. R: THERE IS A HIERARCHY FROM THE PERSEPCTIVE OF THE PHYSICIANS - I DO NOT CONIDER MYSELF AN UNDERLING BUT A COLLEAGUE. I THINK THEY PROBABLY CONSIDER ME AN UNDERLING. (Capitalized by respondent.)

Equality	19	6.5%	R: I feel equal to equal.
			R: In the multidisciplinary teams I work with, all disciplines are respected equally.
			R: Usually I feel equal and am treated equal to the physician.
Respect	27	9.2%	R: Physicians respect my credentials.
			R: I am fully respected for my knowledge and we are all on a first name basis. I do not feel there is a hierarchy in operation.
			R: Within medical settings physicians are often viewed as being at the top of the hierarchy though I have found mutual respect has developed as we work together.
			R: I have as much skill and professional knowledge in my domain of pediatric psychology and experience their respect for me when I need to discuss issues with them. Over the years I have developed strong trusting working collaborations and these are strong and reliable.
			R: I believe we work as a team only if I initiate it, although they are respectful.
			R: I have been treated with respect for my assessment by most MDs.
			R: My opinion is sought and valued.
			R: Physicians value psychologists and are very respectful. Quite often the problem lies with psychologists who are resentful or suspicious of physicians and the medical model.
The Psychologist is Higher in the Hierarchy	3	1.0%	R: I am a senior and fairly well known professional and no one gives me a lot of attitude. I also know well the limits of my professional expertise and respect the expertise of my medical colleagues.
			R: They defer to me as the expert, but I insist on equality.
			R: Reverse hierarchy here, since I train so many family practice residents I am considered the authority in behavioral health and counselling.

It Depends on the Physician	12	4.1%	R: Greatly depends on the MD. Some are wonderful to work with, some are more challenging. R: It varies with individual physicians. R: Depends. Most are quite respectful, occasional physician related in an hierarchial fashion. R: It depends on the physician. R: Depends on the attitude of the physician. R: Varies from physician to physician, less so with recent grads. R: Again, it depends on the Doctor. Mostly I would say that my rapport is pretty level with 1/4 of them. R: Depends on the physician - i.e., personality, training, openness to biopsychosocial/interprofessional models.
Outlier	3	1.0%	R: Physicians and psychiatrists are going to be perceived higher on the totem pole, sometimes for good reason. Some psychologists are bumbling idiots who know nothing about biology or psychopharm.

Advantages of collaboration. In the present study, participants (324; 92.8%) expanded on their thoughts on the advantages of collaboration (Q36). (See Table 6). Themes were as follows: client care, coordination, medication issues, comprehensive care, and holistic care.

Table 6

Areas of Collaboration

Number of Responses	Area of Collaboration
108	Client Care
80	Coordination of efforts to help the client
38	Medication issues
30	Collaboration assisted in comprehensive client care
27	All around comprehensive care; holistic care
283	Total

A selection of illustrative comments about these perceived advantages of collaboration are listed in Table 7 below.

Table 7

Advantages of Collaboration

Themes	No. of Responses	% of N	Representative Samples of Comments From Participants
Client Care	108	38.2%	R: Better overall care and less stress. R: Rounded care. R: Better care - sometimes saves lives. R: They would get better care. R: More smart brains - better care. R: For some patients important, not for all.
Coordination	80	28.3%	R: Both the physician and the psychologists have an accod on the diagnosis, have the same attitude regarding the treatment (if patients need a combine Rx for depression, for ex. Medication and psychotheraphy), give the same message to patient and agree on the return to work, all these will create more trust in us and will avoid the "cleavage" by the patient among us. R: Seamless/integrated care working toward similar goals. R: Better follow up, conjoined care. R: Improved care which is coordinated, 2 heads better than one approach. R: IF PEOPLE ARE ON THE SAME PAGE, THE CLIENT GETS A CONSISTENT MESSAGE. (Capitalized by respondent.)
Medication	38	13.4%	R: Better stowage (arrimage) of treatment and medication. (Translated from French.) R: For clients on meds, the advantage is huge re adjustments of med. R: Many clients who are feeling depressed or anxious will see their primary care provider and start medication. Many will not return for follow up to report intended and unintended effects. Clients will tend to share this information in theraphy, especially if asked. This can allow them to receive an appropriate therapeutic dose of medication. Otherwise they give up on a medicatio because they thik it does ot work. Also it can be helpful to know about treatment concerns the physician may be aware of, such as other medical conditions that may be impacting recovery. R: Understanding, knowledge of each other's perceptions, less emphasis on psychiatrists and medication. R: Many of my clients have medical issues and/or are using psychotropic medications. Since these things interact significantly with psychosocial factors, it makes sense that treating professionals be on the same page to the extent possible.

Collaboration assisted in comprehensive client care	30	10.6%	R: A more comprehensive assessment R: More comprehensive care R: Provides a more exhaustive plan of treatment R: Better and more comprehensive care
All around comprehensive care; holistic care	27	9.5%	R: A more holistic approach to care R: Holistic care; Greater appreciation of the interconnection between physical and mental health/wellbeing R: Better health services as patient is treated as a whole R: More holistic care. Mind body connections

Barriers to collaboration. Responses fell into the following categories of responses to the next open-ended question: "What do you see as the biggest barrier to effective collaboration?" Themes were as follows: time, accessibility, superior attitude of PHCPS, and outliers.

Time. With 338 (96.8%) participants responding to this question, time as a barrier to collaboration was mentioned in 122 (36.1%) of the responses: 10 specifically mentioned physician time, 6 mentioned psychologists' time barriers, and 4 indicated time on both sides was a barrier. Twenty-one of the responses consisted of one word *time.* Clearly lack of time was considered detrimental to collaboration between the professions. Representative comments are listed in Table 8 below.

Accessibility. The relevant literature on collaboration suggested that accessibility was a factor in collaboration. The quantitative analysis of the influence of this factor on preferred form of collaboration proved not to be statistically significant. However, in the qualitative responses, the concept of accessibility was central. The finding of several research studies using physicians as participants indicated that psychologists were not accessible and did not respond to phone calls or contacts. In the present study psychologists indicated that physicians were not accessible and did not respond to contacts. Clearly this seems to be an issue for those in both professions. In the present study accessibility or availability of the physician was mentioned as a barrier by 77 (22.8%) of the respondents (see Table 8 for sample responses). Of these, 35 respondents commented on the inaccessibility of the physician, 26 mentioned access without clarifying further, 8 mentioned geographical separations as a barrier, 6 mentioned

accessibility of physicians and psychologists, and 2 mentioned inaccessibility of the psychologist.

Issues of accessibility were not found to be statistically related to preferred form of collaboration, yet qualitative answers clearly indicated that for at least 20% of the respondents that accessibility was a barrier to collaborating.

Attitude of superiority of physician. Some respondents expressed the opinion that the biggest barrier was the superior attitude of the physician. This was expressed in 53 responses (15.7%).

Outliers. Two responses were considered outliers. (2; 0.6%) regarding barriers to collaboration between the two professions. See Table 8 for representative responses.

Table 8

Barriers to Collaboration

Themes	No. of Responses	% of N	Representative Samples of Comments From Participants
Time	122	36.1%	R: No set time to connect or the expectation to do so.
			R: Time limitations of Physicians.
			R: GP's are very busy and hard to catch. As I am, frankly. Too often I gave the impression that letters and reports are not read, but getting a verbal consultation can be very difficult.
			R: Time, which for us means money. Or, time away from clients.
			R: Time. If we are not with clients we are not being paid.
			R: Lack of time.
			R: Time Constraints.
			R: Time to speak.
			R: Time. MDs are often swamped.
			R: Physicians not willing to take the time to collaborate with me and them not understanding what psych's do and how beneficial psychotherapy can be.
			R: Physicians not taking or having the time.
			R: The most salient impediment to my communication with physicians appears to be their time constraints, and the relationship between their overly busy schedules and their method of billing." Their time is filled up with billable services, and communication with me is not allowed to compete with a billable opportunity.
			R: Fee for service physicians do not typically get paid to attend case conferences or joint appointments with clients, and given the demands on their schedules, it is often challenging to co-ordinate such collaboration.
Accessibility	77	22.8%	R: Physicians inaccessibility for consultation.
			R: Physician availability.
			R: Hard to reach.
			R: Geography and accessibility – if we do not work in a similar setting the fast paced nature of the work can make it challenging to find mutual times to communicate/consult.
			R: Not a shared care model, therefore no direct access to physician and vice versa.
			R: Lack of availability on the part of the physicians or lack of interest?

Attitude of Superiority of Physician	53	15.7%	R: Power that physicians give themselves over all other professionals. They don't respect others expertise. R: A certain superiority attitude that we can still find in certain physicians. R: Their ego. R: Older physicians have no use for psychologists. R: Feeling of superiority on MDs part. R: Some physicians do have attitudes of superiority. R: Some physicians tendency to feel the need to "know it all" when it comes to psychological factors. R: Physicians are trained to 'be in charge" and often don't know or acknowledge the expertise of other professionals. They often want to tell psychologists what to do with relatively little knowledge of what the options are and what would work best with a specific client. R: Physicians egos.
Outliers	2	0.6%	R: Most psychologists around here are idiots w/ little knowledge of medication or biology – it makes us all look bad. R: Poorly trained psychologists who don't have the etiquette or expertise to converse intelligently with a physician. Most around here are M.A.'s in Counselling Psych who are told they are experts in everything but they are actually rather unskilled.

What can physicians do? Of the 349 psychologists who took part in the survey, 335 (95.99%) elaborated on the question of what physicians could do to improve collaboration with psychologists. The main themes in these responses were as follows: increasing contact, communication, education and understanding, physician attributes, and systemic issues.

Increasing Contact. Seventy-one responses (21.2%) centered on the idea that physicians could have more face-to-face or in-person contact with psychologists to improve collaboration. Several respondents offered specific ideas on how this contact could take place, such as participating in joint conferences, co-locating, or bringing a psychologist into the physician's practice. A sampling of comments on how physicians could improve collaboration through increasing contact are listed in Table 9 below.

A subset of the responses about contact specifically mentioned that the physician should initiate the contact. ($n = 11$; 3.3%)

Communication. Respondents ($n = 44$; 13.1%) indicated what physicians could do to improve collaboration related to communication (see Table 9).

Education and understanding. Education and understanding ($n = 41$; 12.2%) were also themes that emerged regarding ways physicians can increase collaboration. Forty-one respondents mentioned physicians educating themselves or increasing their understanding as being important to the improvement of collaboration with psychologists. Of this number, 16 (4.7%) mentioned education on the training and role of psychology, 10 (2.99%) referred to physicians improving collaboration with psychologists by understanding the role of psychology. Seven (.2%) referred to educating themselves to working in an interprofessional manner.

Physician attributes. Twenty two (6.6%) respondents mentioned physicians changing their personal attributes as a way to improve collaboration. This included increasing openness (*n* = 9; .27%); and losing ego (*n* = 3; .09%).

Systemic issues. Twenty-one participants wrote about physicians changing systemic issues as a way to improve collaboration. Of that number, four (.12%) indicated that physicians should advocate for billing codes advantageous to psychologists. Four (.12%) also indicated that the healthcare system needed to change to improve collaboration.

Table 9

What can Physicians do?

Themes	No. of Responses	% of N	Representative Samples of Comments From Participants
Increasing Contact	71	21.2%	R: Host a collaborative training event or create opportunity to network.
			R: Work under the same roof, as is now occurring more often.
			R: Let us come and talk to them about what we do and how we could work together.
			R: Have a meet and greet session attended by primary care physicians and psychologists with different orientation.
			R: Shared offices or spaces or meetings.
			A subset of the responses specifically mentioned that the physician should initiate the contact. (n = 11; 3.3%)
			R: Reach out more by initiating contact.
			R: Reach out more by initiating contact
			R: Reach out when they have a concern.
			R: Initiate contact, request a report or telephone consult when referral is made, provide a referral (written or verbal), schedule time to discuss cases.
Communication	34	10.1%	R: Scheduled telephone hours.
			R: Email with password protection. Give cell numbers to be reached. We know how difficult it is to reach a busy professional and the lack of availability during the day. I am a good example that.
			R: Communicate their willingness to engage in formal and informal discussions, send written/electronic communication regarding the clients' medical issues.
			R: Talk "with us" and not, "to us."
			R: Be open to conversation and collaboration.
			R: Take my calls.
			R: Return phone calls.
			R: Pick up the phone.
			R: Start using email. Have office hours. Set meetings, arrive at them on time. Listen.
			R: Acknowledge receipt of a progress report and provide a comment, give feedback or suggestions from their perspective of caring relationship of our client.

Education and Understanding	26	7.8%	R: Better understanding of psychological practice taught in medical schools and at all levels of training.
			R: Get more information about what we do.
			R: Become better educated on how to utilize psychology services.
			R: Have a clearer idea of what psychology has to offer in the treatment of "difficult" patients, particularly the old.
			R: Become more educated about psychologists and what they can do, rather than assuming they know what is best for the client in therapy.

What can psychologists do? (310; 88.8% of *N*) When asked for an open-ended qualitative response, psychologists in this study strongly expressed that communication would provide a way to increase collaboration with physicians. Three hundred ten (88.8%) of 349 participants responded to a request to elaborate on how psychologists could improve collaboration with primary healthcare physicians. Of 310 participants, 117 (37.7%) offered communication as a way to improve collaboration with the primary healthcare physicians with whom they related professionally. Of that number, 36 (17.1%) suggested that improving communication involved written communication that included feedback. The theme of contact was next, with 61 (19.7%) responses referring to contact. Finally, the theme of education was expressed in 37 responses (11.9%). Significant themes fell into the following categories: communication, contact, and education.

Communication. Communication was a central theme in the responses for this question with 117 (37.7%) responses referring to communication as a way to improve collaboration. See Table 10 below for a sample of responses.

Contact. (61 responses, 19.7%) The theme of contact was again represented in the ways collaboration could be improved, this time from the psychologists' side. Sixty-one respondents (19.7%) referred to various kinds of psychologist-initiated contact to improve collaboration. Subthemes of increased frequency of contact, increased effort to make contact, and ideas for contact activities and processes emerged.

Education. Education was another strong theme. Responding psychologists (37; 11.9%) indicated that psychologists should educate physicians about psychology and

what psychology has to offer to physicians' patients and to the professional lives of physicians. Two psychologists responded that they should educate themselves about medicine or about the points of view physicians hold (see Table 10).

Table 10

What can Psychologists do?

Themes	No. of Responses	% of N	Representative Samples of Comments From Participants
Communication	117	37.7%	R: Communicate with them in a style they prefer.
			R: Be more mindful of the need to reply to referrals with correspondence.
			R: Provide concise, practical reports.
			R: More regularly, communicate my view of the client's mental health.
			R: Make the effort to connect and ensure I deliver information in a clear succinct manner, conveying the essence efficiently as they function under a lot of time pressure.
Contact	61	19.7%	R: Be in contact with them more frequently.
			R: Continue to contact and consult.
			R: Keep on renewing contact.
			R: Make myself visible, be present and social and interact with the docs and staff on a daily basis.
			R: I often book an appointment with physicians to discuss mutual cases so they can be paid by the health care system.
			R: Ask. Establish contact (or try) at outset of relationship; send note re potential impact on medications of my interventions, plus description of interventions.
			R: Establish personal relationships with as many as possible. I have had well prepared letters or reports ignored, when sent by fax or personal delivery to physician offices.
Education	37	11.9%	R: Train their residents and faculty.
			R: We as psychologists need to educate physicians on how to use us more effectively and factor us into their treatment plans.
			R: Try to make myself available when they are. Try to (gently) educate them about my expertise and the ways in which that can improve and support their practice and their patient's health.
			R: Ongoing education regarding role as well as an understanding of relevant research. It is often important to be able to cite relevant research regarding the importance and effectiveness on psych interventions on health.
			R: Educate them about what we do.
			R: Attend more medically based seminars related to the interaction of medical and psychological health.

Chapter IV: Discussion

This chapter includes a discussion of the results of the present study, along with an assessment of the significance of the findings in relation to the seven hypotheses tested in the present study. The implications and relevance of the current findings, followed by an overview of the limitations and directions for future research, complete the discussion.

Hypotheses

The quantitative findings of the present study partially supported the hypotheses, namely hypotheses 1, 2, and 7. Results were significant but weak for predictor variables: perceived necessity, education and training, and age, years of practice and field of psychology. No statistical significance was found for hypotheses 3 through 6.

Necessity for collaboration and preferred form of collaboration. Results indicated a significant but weak positive relationship between the participants' perception that collaboration was necessary for the care of their clients and a preferred form of collaboration. This finding suggests that although psychologists in the study were more likely to have a preferred form of collaboration which required more contact with PHCPs if they held the opinion that collaboration was a necessity for the care of their client, the relationship between the two was not strong. There are several possible explanations for this result. This weak relationship may be due to the fact that although there was an above-average agreement with the concept that collaboration was a necessity for the care of clients, this notion did not lend itself to preferring a specific way in which to collaborate with physicians. It is also possible that the questionnaire was not adequately sensitive to measure the construct of necessity because only one item measured for that

construct; this might indicate a problem with criterion validity. It is also possible that other factors influenced preferred form of collaboration more than necessity.

Education and training and preferred form of collaboration. Survey results indicated a positive but weak correlation for education and training and preferred form of collaboration. The amount of variability in preferred form of collaboration influenced by education and training was small (2.56%) and had statistical, but not practical significance. In the relevant literature, education and training were deemed important to collaboration, but the results of this study did not strongly support that previous finding. This was one of the more surprising findings of the study, given the importance of education and training to collaboration in the collaboration literature. This finding may suggest that psychologists have a preferred form of collaboration regardless of their experience of interprofessional education and training. It may also suggest that something else in their education and training experience influenced their preferred form of collaboration, such as positive or negative interpersonal experiences with the other profession, the structure of their training, or the delivery of their education. Findings may suggest that the instrument used in the present study was not sufficiently content valid to accurately capture the opinions of psychologists about collaboration. These issues may hide an association that actually exists in the sample but was not elicited by the questionnaire.

Perspective of hierarchy and preferred form of collaboration. From indications in the literature (Ellingson, 2002; Fewster-Thuente & Velsor-Friedrich, 2008; Garcia-Huiboro et al., 2013; McDonald et al., 2012), it was hypothesized that participants having the perspective that there was a hierarchy in the relationship between

psychologists and the PHCPs with whom they came into professional contact would have an influence on a psychologist's preferred form of collaboration. For instance, if psychologists agreed strongly that they perceived hierarchy in their working relationship with PHCPs, they might have been less likely to prefer a form of collaboration closer than the classic form of paper referral and consultation. The converse may also have been accurate: psychologists who strongly disagreed that there was hierarchy in the relationship may have preferred a closer form of collaboration, which in the model of collaboration used in this study, would mean more contact and, ultimately, co-therapy. It is also possible that issues of hierarchy are a concern for the participants in the present study, but for the well-being of the client, they do not let this affect their professional attitudes. Issues of hierarchy may have little salience to the participants, or they may find the issue of hierarchy objectionable, which may have affected their responses (Dillman, 2000). The issue of hierarchy may not have been clearly defined in the questionnaire in the present study, accounting for an inability to capture accurate opinions of the participants.

Communication factors and preferred form of collaboration. Another finding was that communication factors hypothesized in the present study did not appear to strongly influence preferred forms of collaboration. Communication factors used in this hypothesis in the present study were feedback and the perception of psychologists that they were being respected by PHCPs during periods of contact that related to client care. One of the hallmarks of the profession of psychology is communication. Communication, as an important factor, was well represented in the literature (Ellingson, 2002; Kainz, 2002; Nijhuis et al., 2007; Orchard et al., 2005); therefore, it is interesting that

communication factors were not more closely linked to how psychologists preferred to collaborate with PHCPs in quantitative results. This inconsistency may be due to a lack of clarity or consistency in the questionnaire items defining communication, suggesting the instrument may not have been content valid. All communication factor items were not included in the test, which was a weakness in the study design. In addition, it is possible there may have been important aspects of communication that were not measured in the questionnaire items.

Perception of accessibility and preferred form of collaboration. Perhaps the most unforeseen quantitative finding that did not support previous research was that accessibility was not significantly related to preferred form of collaboration. Psychologists viewed themselves overall as being more accessible to PHCPs than PHCPs were to them, with means for the two items focusing on this question falling almost exactly between the choices: Agree and Strongly Agree. When psychologists were asked about PHCP's availability, the mean was close to the mid-point, neutral. One might speculate that psychologists have come to a level of acceptance about PCHP's relative lack of accessibility or that accessibility does not affect preferred level of collaboration for a reason not illuminated by the quantitative portion of the present study. Another possibility is that the measure used in the study may not have been sensitive to this expected relationship.

Gender difference and perceptions of hierarchy. This hypothesis aimed to examine whether there was a gender difference regarding participants' perceptions of hierarchy. The relevant literature reviewed for the present study suggested that it was possible a relationship may be found between the two (King & Cubic, 2005; Sisira et al.,

2012; Zelek & Phillips, 2003). Results were not significant with regard to this hypothesis. This may mean that both women and men perceive a hierarchy in their working relationships with PHCPs or that neither women nor men perceive a hierarchy in their working relationships with PHCPs. A third possibility is that there is something inherent to the professions of psychology and medicine, such as professional identity, that outweighs issues of gender.

Age, years of practice, and field of psychology and preference for interprofessional collaboration. The combination of age, years of practice, and field of psychology predicted preference for interprofessional collaboration. This suggests that how closely a psychologist prefers to collaborate with a PHCP was influenced by the psychologist's age, years of practice, and field of psychology. This was an exploratory hypothesis based on literature that suggested that age influenced collaboration and teamwork (Sisira et al., 2012; H. M. Williams et al., 2007). Although the variables were statistically significant predictors, little variance in preferred form of interprofessional collaboration was explained. A more precise measurement of the variables may have produced stronger results.

Interprofessional collaboration composite. The Interprofessional Collaboration Composite incorporated several domains of information about collaboration between the psychologists and PHCPs and combined into a singular, scalar quantity (on a scale of 1-5) with an overall mean of 3.57. What the composite offers is a snap-shot of the level of agreement that participants had with aspects of collaboration with PHCPs. The quality of collaboration participants least agreed with was that they received ongoing assistance with referred clients ($M = 2.83$; $SD = 1.17$). The quality of collaboration they most agreed

with was that they were accessible to PHCPs for the purpose of sharing their

psychological knowledge ($M = 4.53$; $SD = .52$).

There was a similar high level of agreement to participants' accessibility if

PHCPs wanted to consult about a mutual client ($M = 4.51$;$SD = .62$): comfort in giving

feedback about a client to their PHCP ($M = 4.26$; $SD = .84$) and the aspect of

psychologists needing to be better educated and trained in identifying medical problems

in patients ($M = 4.14$; $SD = .77$). These results may indicate that one of the defining

features of the sample was that participants were comfortable with and made themselves

available to PHCPs to aid in their work with clients but did not get the same access to

PHCPs.

Qualitative Findings

Qualitative data included the areas of feedback, hierarchy, advantages of

collaboration, barriers to collaboration, suggestions for ways physicians might improve

collaboration, and ways that psychologists might improve collaboration.

Feedback. Although it appears that psychologists in the study were generally

open to providing feedback with informed consent and considered feedback to PHCPs

important to best practice, representative responses indicated that they were stymied by

the negative response or lack of response they would get from PCHPs when they would

attempt to initiate feedback. The relationship with the physician and the fashion in which

psychologists offered feedback (concise, written), in addition to the setting in which the

feedback occurred, were considered important in the quality of the feedback interaction.

Hierarchy. The qualitative question of hierarchy indicated that the participant

psychologists recognized they were considered lower in the hierarchy or felt lower in the

hierarchy in relationship to physicians. By far this was the most recurring theme in response to this question and bears investigation in future research. Further, the responses in this category exhibited strong emotional valence, which may be challenging to quantify. Participants used descriptors, such as "God," "Emperor," "Underling," "Ego," and "Superiority" in their responses. These words convey strong power dynamics. A minority of responses reflected they felt equal and respected by PHCPs or that issues of hierarchy depended on the personality attributes of individual physicians. Responses that referenced the personality of the psychologists in affecting the relationship were so few they were considered outliers.

Advantages. The advantages of collaboration included providing better client care through well rounded care, coordinated care ("being on the same page"), holistic care and knowledge of medications which their clients were currently prescribed or taking. Responses were almost completely weighted on care of the client themes, rather than on themes related to advantages to participants professionally or personally.

Barriers. Barriers to collaboration included time constraints of the PHCP, time constraints of the participant psychologists, poor accessibility, and an attitude of superiority by the PHCP. Outlier responses in this section included two responses that were highly critical of the expertise of psychologists. One of the two outlier responses indicated that poorly trained psychologists, most of whom were trained at the master's level, could not converse intelligently with physicians.

Suggestions for PHCPs. With regard to suggestions participants had for PHCPs, increasing face-to-face contact, increasing communication, educating themselves about the role of psychology, increasing accessibility, addressing issues related to physician

attributes, and intervening on systemic challenges were deemed important. Suggestions psychologists had for PHCPs appeared to reveal the following areas of concern held by the participant psychologists about PHCPs: face-to-face contact, amount and quality of communication, and accessibility of PHCPs to assist with patient care need for education about psychology.

Suggestions for psychologists. For ideas about how psychologists could improve collaboration with PHCPs, almost 40% offered that they could communicate in person and in writing in ways that physicians could appreciate, such as conveying information succinctly and providing concise, practical written reports. They also suggested personal contact as a way to improve collaboration by making themselves visible, demonstrating persistence in continuing contact, and being social with PHCPs with whom they came into professional contact. Finally, participants mentioned education as a way to improve collaboration.

Summary

The results of the current study suggested there was a significant relationship between the predictor variable: necessity for collaboration and criterion variable: preferred form of collaboration. There was also a relationship between the predictor variable: type of educational degree and preferred form of collaboration. Finally there was significance among the three variables, age, years of practice, and field of psychology with preferred form of collaboration. Some predictor variables suggested modest amounts of variability explained in preferred forms of collaboration with primary healthcare physicians. Of all predictor variables, necessity appeared most related to

preferred form of collaboration. However, no relationships appeared robust; therefore, these results need to be considered with caution.

Some quantitative results were unexpected and did not support previous research. One such result was that accessibility of the physician or psychologist was not statistically correlated to preferred form of collaboration. All variables in the present study were drawn from the academic literature on collaboration. Accessibility, in particular, was repeatedly presented as a major barrier to collaboration. The current study findings did not support previous findings on accessibility as germane to collaboration. The quantitative results appeared at odds with the qualitative findings in the current study. The qualitative findings suggested accessibility did influence collaboration between psychologists in the study and PCHPs.

A large percentage of psychologists in the study reported in their qualitative responses that they experienced a hierarchy in their relationship with physicians; they noted that psychologists were lower in the hierarchy than physicians. When answering the qualitative open-ended questions about these issues psychologists in the study also deemed accessibility to physicians a barrier to collaboration.

Strengths of the Current Study

The strengths of the current study include the sample size ($N = 349$), which was sufficient for statistical analyses, and the representation of psychologists from most regions in the country, including responses from urban centers and rural and northern areas of Canada. Because the professional experiences of psychologists may vary among provinces and regions, this inclusiveness provided a sample from which to gather psychologists' attitudes throughout the country. This study also covered relevant areas

from the literature and allowed for additional depth in the options for qualitative responses. These are characteristics that other studies did not have. Another strength of the study is that the survey was translated into Quebecois French so that psychologists who read French as their first language could participate appropriately in the study. The province with the most registered psychologists in Canada is Quebec. Providing the questionnaire in French made the study more representative of the population of Canadian registered psychologists as a whole and uniquely positions the study among Canadian studies of collaboration between psychologists and PHCPs.

Limitations

Survey research. Limitations of the study include those associated with survey research. Participants who self-selected by filling out the survey may have limited the generalizability of the findings of the study. It is possible that only psychologists who felt strongly positive or strongly negative about collaboration with primary-care physicians responded to the survey. Another possibility is that psychologists who were members of the CPA or provincial or territorial associations may be "joiners" and therefore likely to collaborate.

Survey fatigue. Because surveys have become ubiquitous, the researcher had to compete for participants' time. Survey fatigue may have resulted in superficial data. The survey was designed to be brief because research has indicated that survey questionnaires of more than 10 minutes may not be completed due to participant burden (Thorpe et al., 2008). However, having a shortened survey meant that only a few survey items measured each variable. This may have resulted in a threat to construct validity.

Bias. All self-report methods may be vulnerable to several sources of bias that may have been present in the study, including the following:

a. selective memory: participants forget or misremember experiences or events related to questionnaire items;

b. attribution: participants attribute positive events to their own agency but attribute negative events and outcomes to external forces;

c. exaggeration: participants over-represent their answers, either positively or negatively; and

d. social-desirability: participants answer with a desire to please or anticipate what the researcher is seeking (Brutus, Aguinis, & Wassmer, 2013).

Development of the survey. At the time of the present study, no comprehensive instrument measuring attitudes of collaboration for psychologists and PHCPs was available. Therefore, the survey questionnaire for the present study was constructed with contributions of items from another survey (Grenier, 2008); items were reversed to represent the focus on psychologist attitudes instead of physician attitudes. Additional exploratory items were added to gain information unavailable in the literature on psychologist–physician collaboration. The present study may have been weak in defining concepts in a way that they could be generally understood by the participants and accurately measured (Aguinis & Vanderberg, 2014; Mackenzie, 2002). Psychometrics were not studied for this survey. Therefore levels of test-retest reliability, inter item reliability, and construct validity cannot be specified. Absent strong validity, results may be inconclusive. Finally, response choices may not have been sensitive enough to capture nuances in the data.

Translation. There may have been limitations in the way the survey was translated for one of the target audiences (Quebecois psychologists) in that professional translation and machine back-translation were employed instead of using the team approach recommended by some researchers (Forsyth et al., 2007; Harkness, 2013). With greater resources and different translation procedures, the survey may have yielded more precise responses.

Delimitations

This study queried only psychologists who are registered or licensed by a provincial or territorial psychological regulatory body in Canada. This requirement was outlined in the letter of invitation to help ensure data were relevant to the particular characteristics of the practice of psychology in Canada.

Implications of Findings for Collaboration

The quantitative results of the current study provide an opportunity to rethink the factors which have been accepted in the existing literature as vital to collaboration. Qualitative results provide a pathway for the work required to improve collaboration between psychologists and primary healthcare physicians. Psychologists need to address issues of hierarchy in their relationships with physicians. Although it may also be helpful for PHCPs to address issues of hierarchy, generating suggestions for physicians is outside the scope of this study. Results indicated no consensus regarding hierarchy in professional contacts with primary healthcare physicians. However, the qualitative data indicated that many psychologists feel strongly that there is a distinct hierarchy, with physicians at the top and psychologists somewhere beneath the physician. It is possible that effecting change in hierarchy may be outside the influence of many psychologists

because the hierarchy may be systemic in nature. More research on this topic needs to be undertaken before the relationship between issues of hierarchy and preferred forms of collaboration are more clearly understood.

In qualitative answers, several psychologists pointed out that, at first, hierarchy was apparent in interactions, but as the two professionals came to know and trust each other, issues of hierarchy softened. Psychologists indicated that increasing and improving their communication with primary healthcare physicians was the prime route to improving collaboration. Given the indication in the data of the time constraints of members of the two professions, finding and establishing sustainable ways of communicating will be imperative.

Recommendations and Directions for Future Research

The recommendations reported here are drawn from the results of the quantitative and qualitative data. Results from the tested hypotheses in the quantitative portion of the study did not provide statistically significant associations in most cases, and in the two areas in which statistically significant results were found: necessity and type of educational degree the associations were weak. These findings should be viewed with caution and recommendations modified based on different findings.

Other findings from the descriptive and qualitative portions of the study appear more robust and may offer substantial direction for recommendations. One finding from the study was that more than 75% of participants in the study preferred a higher form of collaboration than they thought was viable in their current practice.

To yield recommendations for going forward from this study, the strong preference for a higher form of collaboration is combined with suggestions from

participants about how to improve collaboration with PHCPs. A selection of these suggestions was provided in the results section of this dissertation; suggestions divided into three thematic areas: communication, contact, and education.

Recommendation 1: To improve written communication, psychologists might develop a template for a one-page report that contains all relevant information and takes a PHCP a few minutes to read.

Recommendation 2: To increase contact, psychologists might make it one of their professional-development goals to attend medical conferences in their area and introduce themselves to PHCPs they meet at the conferences. They could ask to be on the mailing list for primary care or family practice conferences and submit an abstract for presenting at conferences. They could make an effort to network to find out which PHCPs in their area are open to, and interested in, collaborating.

Recommendation 3: Psychologists could offer to provide talks to medical students at university medical schools and to medical residents. Many medical programs invite interprofessional practitioners to address medical students on a variety of subjects related to their development as physicians; psychologists should be involved in the training of PHCPs to share their expertise in mental health and assessment.

Recommendation 4: In at least one province (British Columbia) PCHPs can bill for time spent in interprofessional collaboration with psychologists when it is for the benefit of a particular client. Many PCHPs may under use this billing code; psychologists could take the initiative to suggest scheduling such a meeting. Psychologists who work in government funded positions might propose that managers approve such meetings. Alternatively, psychologists could choose these meetings as part of their pro bono work.

Psychologists might investigate ways they can bill for contact with physicians so that contact might be easier to achieve.

From the results of the current research, it appears that it may be beneficial to the profession of psychology if future research in the area of collaboration between psychologists and PHCPs addresses issues of variable refinement and questionnaire item sensitivity. By reducing and refining study variables and, in turn, creating more sensitive questionnaire items, findings in future psychologist-PHCP collaboration research may be more significant and add more to the body of literature on this subject. This will be facilitated by all questionnaire items being directly related to study variables and having many items loading onto each variable.

The results of the study helped to illuminate the many different degrees at the masters and doctoral level that qualified psychologists to become registered in their own provinces and territories. Other than the PhD in Clinical Psychology (45.8%), there were 37 different academic degrees represented in the sample. This diversity in education to become a registered psychologist in Canada may influence the approach to collaboration, perceptions of hierarchy, the development and practice of psychology, and the cohesion of the profession as a whole. Measuring the influence of the wide ranging educational pathways that allow professionals to become registered psychologists in Canada on collaboration would be a useful area of further research.

Future studies could also consider the additional area of exploration gleaned from qualitative findings: the effect of the perception of a hierarchical relationship between registered psychologists and PHCPs on the collaboration between the two professions.

Conclusion

This study was unique because it is the first bilingual study aimed at registered psychologists in Canada to describe factors in collaboration from the psychologists' viewpoint. The collaboration literature contains a plethora of studies aimed at physicians with regard to how psychologists could best interact with physicians, but, to date, fewer studies provided the point of view of the psychologist, particularly with the breadth of data this study provided. Quantitative findings suggested a link might exist between perceived necessity of collaboration and type of educational degree with preferred form of collaboration. Quantitative findings also suggested that psychologists overwhelmingly prefer closer forms of collaborative contact with PHCPs than may be currently viable with existing professional and systemic realities. Qualitative findings suggested that feedback, issues of hierarchy, and communication factors may be controversial issues for psychologists. Notwithstanding, registered psychologists have creative and thoughtful suggestions on ways to improve their collaboration with PHCPs.

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Appendix A

Definition of Terms

For the purposes of this proposed study, collaboration is defined as a process that requires relations and interactions between health professionals, regardless of whether they are members of a formalized team or a less formal or virtual group of health professionals working together to provide comprehensive and continuous care to a patient/client (Canadian Health Services Research Foundation, 2006). Interprofessional is defined as a working relationship in which a professional's skills, knowledge and roles are adapted to fit in with other professions (Finch, 2000). Patient is often a medical term, whereas client is a term used in psychology. For the purposes of this proposed study of primary healthcare, the term client will be used. Primary Care includes essential healthcare; based on practical, scientifically sound, and socially acceptable method and technology; universally accessible to all in the community through their full participation; at an affordable cost; and geared toward self-reliance and self-determination (WHO, 1978).

At present, primary healthcare care services in Canada are delivered chiefly by family physicians and general medical practitioners who focus on the diagnosis and treatment of illness and injury (Health Canada, 2011). For the purposes of this research, primary healthcare physician and family physician are used interchangeably (J. Thorsteinson, personal communication, May 28, 2012).

Appendix B

PSI Items Permission

Dear Margaret,

You have permission to use items from the PSI in your dissertation research.

I wish you all the best with your project.

Cheers,

Dr Jean Grenier, C.Psych.
Psychologue
Professeur adjoint au département de Médecine familiale, Université d'Ottawa
Professeur clinique associé à l'École de Psychologie, Université d'Ottawa
Responsable des stages de niveau doctoral en psychologie – Hôpital Montfort
Clinicien-chercheur au Centre C.-T.-Lamont de recherche en soins de santé primaires de l'Institut de recherche Élisabeth-Bruyère
Co-directeur – Unité de recherche en soins primaires de l'Institut de recherche de l'Hôpital Montfort

Hôpital Montfort
713, chemin Montréal
Bureau 1D-157
Ottawa, Ontario
K1K 0T2

Téléphone: 613.746-4621 (6005)

Appendix C

Permission for Wording Change in Questionnaires

Dear Margaret

I have no objection for you to replace the wording in the questionnaires as you mention in your email for the 2 items in questions such as :

Replacing the words, "physicians" with "Primary Healthcare Physicians" in the first question and replacing "psychologists" with "Primary Healthcare Physicians" in the second question.

1) Collaboration or interaction between physicians and psychologists can take a variety of different forms. Which type would you find most realistic within your actual practice. (The levels of collaboration as per Hepworth & Cushman (2001) followed.)

2) To what extent, any of the following factors have an impact on the collaborative process with psychologists.
Differences in theoretical,ideological orientation ...

All the best of luck with completion of your research

I will follow-up with Dr Grenier so he may append his permission too….

Marie Hélène

_____

Marie-Hélène Chomienne, MD,CCFP,MSc
Professeur-adjoint au département de médecine familiale et au département d'épidémiologie
Université d'Ottawa
Co directrice Unité de recherche en soins primaires
Institut de Recherche Hôpital Montfort(IRHM)
pièce 2E 120
713 Chemin Montréal
Ottawa, ON K1K0T2

tel 613 746 4621 x 6206
fax 613 748 4953

Appendix D

IRB Approval

On 4 January 2013 13:33, <asuarez@antioch.edu> wrote:

Dear Margaret Drewlo ,
As Chair of the Institutional Review Board (IRB) for 'Antioch University Seattle, I am
letting you know that the committee has reviewed your Ethics Application. Based on the
information presented in your Ethics Application, your study has been approved.
Your data collection is approved from 01/03/2013 to 04/22/2013. If your data collection
should extend beyond this time period, you are required to submit a Request for
Extension Application to the IRB. Any changes in the protocol(s) for this study must be
formally requested by submitting a request for amendment from the IRB committee. Any
adverse event, should one occur during this study, must be reported immediately to the
IRB committee. Please review the IRB forms available for these exceptional
circumstances.
Sincerely,
Alejandra Suarez

Appendix E

Dissertation Pilot Survey

Collaboration Between Psychologists and Primary Health Care Physicians

The purpose of this questionnaire is to collect the opinions of psychologists in determining the factors in optimal collaboration between psychologists and primary health care physicians.

Informed Consent

The study is being conducted by Margaret Drewlo, doctoral student, clinical Psychology, Antioch University Seattle and is part of her research for her doctoral dissertation. The study has been approved by the Antioch University Institutional review board. Participation in the study typically takes ten minutes and is strictly anonymous.
All responses are treated as confidential, and in no case will responses from individual participants be identified. Rather, all data will be pooled and published in aggregate form only. Participants should be aware however that the survey is not being run by a secure server, so there is a small possibility that the responses could be viewed by unauthorized third parties (e.g. computer hackers).
Many individuals find participation in this type of study to be enjoyable and participation may provide you the opportunity to understand your own opinions with primary healthcare physicians.
The survey includes and option that will allow you to withdraw from the survey. If you chose that option all responses from you will be discarded. I will not attempt to capture information that you do not voluntarily provide.
Survey research of this nature is considered to be of minimal risk to participants. However there is a possibility of uncomfortable feelings arising from participation in any survey. If negative feelings arise as a result of participation in the survey you may choose to talk to a friend or trusted advisor or use any other remedy for stress you usually employ.
Results will be published in peer-reviewed journals and disseminated at scholarly meetings.
If participants have further questions about this study or wish to express a concern, they may contact the principal investigator, Margaret Drewlo at 778-881-6945 or mdrewlo@antioch.edu; Professor Patricia Linn PhD, Dissertation Chair, at 206-268-4825 or plinn@antioch.edu; or the Antioch University Institutional Review Board representative Dr. Alejandra Suarez, PhD, at 206-268-4837 or asuarez@antioch.edu

Questionnaire:

1) What gender are you? _____

2) To which age category do you belong?

☐25-34
☐34-44
☐45-55
☐55-64
☐65-70
☐70 and older

3) How many years have you been in practice?

☐0-4
☐5-9
☐10-14
☐15-20
☐21-24
☐25-29
☐30-34
☐More than 34 years

4) In what setting do you work? (Check all that apply)

☐Academic
☐Community Counselling Agency
☐Community Heath
☐Forensic
☐Group Practice
☐Hospital Based
☐School Based
☐Solo Practice

5) What is your main field in psychology? (Choose One)

☐Child
☐Clinical
☐Clinical Neuropsychology
☐Community
☐Developmental
☐Educational
☐Forensic
☐Geropsychology
☐Social
☐Sports
☐Personality
☐Other

6) Have you received training in medical issues?
Yes☐ No☐

7) Have you interned in a medical setting?
Yes☐ No☐

8) Did you receive interprofessional education as part of your doctoral program?
Yes☐ No☐

9) Have you received interprofessional training in a clinical training program?
Yes☐ No☐

10) Do you consult with physicians?

☐More than once a day
☐Once a day
☐Weekly
☐Bi-Weekly
☐Monthly
☐Quarterly
☐Once a year or Less

Please indicate your level of agreement to the following questions:

11) My education prepared me well for collaboration with physicians.

☐Strongly Disagree
☐Disagree
☐Neutral
☐Agree
☐Strongly Agree

12) Psychologists need to be better educated and trained regarding the identification of medical problems in clients.

☐Strongly Disagree
☐Disagree
☐Neutral
☐Agree
☐Strongly Agree

13) My current collaboration with physicians is effective in optimizing client care.

☐Strongly Disagree
☐Disagree
☐Neutral
☐Agree
☐Strongly Agree

14) I am comfortable giving feedback about a client to their physician.

☐Strongly Disagree
☐Disagree
☐Neutral
☐Agree
☐Strongly Agree

15) There is a hierarchy in my relationship with the primary health care physicians with whom I work.

☐Strongly Disagree
☐Disagree
☐Neutral
☐Agree
☐Strongly Agree

16) Can you please elaborate on your answer? _____

17) Physicians are accessible if and when I want to consult with them.

☐Strongly Disagree
☐Disagree
☐Neutral
☐Agree
☐Strongly Agree

18) I am accessible if physicians want to consult with me.

☐Strongly Disagree
☐Disagree
☐Neutral
☐Agree
☐Strongly Agree

19) My collaboration with my client's primary health care physician is necessary for the care of my client.

☐Strongly Disagree
☐Disagree
☐Neutral
☐Agree
☐Strongly Agree

20) I feel respected by primary health care physicians during periods of contact regarding patient care.

☐Strongly Disagree
☐Disagree
☐Neutral
☐Agree
☐Strongly Agree

21) My education is understood by primary health care physicians with whom I come into contact.

☐Strongly Disagree
☐Disagree
☐Neutral
☐Agree
☐Strongly Agree

22) Collaboration or interaction between psychologists and physicians can take a variety of different forms. Which type would you find most realistic within your actual practice? (Check only one.)

☐ 1. Classic form of referral and consultation (receive a referral form and send a written

or verbal report)

☐ 2. Informal collaboration/ corridor consultation (unscheduled, unstructured meetings

to apprise colleagues of progress and general impressions of a case),

☐ 3. Formal collaboration (teamwork, scheduled meetings to discuss pertinent aspects of

care, including therapeutic progress, medication issues, concerns, and recommendations

or prognoses),

☐ 4. Co-provision of care (regular, frequent consultations/meetings and mutually agreed

upon goals for client care), and

☐ 5. Co-therapy (joint presence of psychologist and physician for some sessions with a

client).

This is the end of the questionnaire. Thank you for your participation.

Appendix F

Sample Informed Consent

Consent Form

This study involves a web-based questionnaire designed to understand the factors in optimal psychologist-primary healthcare physician collaboration. The study is being conducted by Margaret Drewlo, doctoral student, Antioch University Seattle and is part of her research for her doctoral dissertation. It has been approved by the Antioch University Institutional Review Board. No deception is involved, and the study involves no more than minimal risk to participants (i.e., the level of risk encountered in daily life). However, it is possible that responding to any or all questions may engender feelings of discomfort in the participant. Participation in the study typically takes 10 minutes and is strictly anonymous. All responses are treated as confidential, and in no case will responses from individual participants be identified. Rather, all data will be pooled, analyzed, and published in aggregate form only. The experiment is being run from a "secure" https server.

Many individuals find participation in this type of study enjoyable. Participation may provide you the opportunity to understand your own opinions about collaboration with primary healthcare physicians. Participation is voluntary, refusal to take part in the study involves no penalty and participants may withdraw from the study at any time without penalty or loss of benefits to which they are otherwise entitled.

If participants have further questions about this study or their rights, or if they wish to lodge a complaint or concern, they may contact the principal investigator, Margaret Drewlo, at 778-881-6945; Professor Patricia Linn, PhD, Dissertation Chair at 206-268-4825; or the Antioch University Institutional Review Board, c/o Alejandra Suárez PhD, 206-268-4823.

Appendix G

Psychologist & Primary Healthcare Physician Collaboration Questionnaire

Description of Questionnaire

The purpose of this questionnaire is to understand the attitudes of psychologists and

thereby determine the factors in optimal collaboration between psychologists and primary

healthcare physicians. For the purposes of this study, collaboration is defined as a process

that requires relations and interactions between health professionals, regardless of

whether they are members of a formalized team or a less formal or virtual group of health

professionals working together to provide comprehensive and continuous care to a

patient/client (Canadian Health Services Research Foundation, 2006). Interprofessional is

defined as a working relationship in which a professional's skills, knowledge and roles

are adapted to fit in with other professions (Finch, 2000). Patient is often a medical term,

whereas client is a term used in psychology. For the purposes of this study of primary

healthcare, the term client will be used. Primary Care includes essential health care;

based on practical, scientifically sound, and socially acceptable method and technology;

universally accessible to all in the community through their full participation; at an

affordable cost; and geared toward self-reliance and self-determination (WHO, 1978). At

present, primary care services in Canada are delivered chiefly by family physicians and

general medical practitioners who focus on the diagnosis and treatment of illness and

injury (Health Canada, 2011). Thank you in advance for your participation in the survey.

The study is being conducted by Margaret Drewlo, Doctoral student, Clinical

Psychology, Antioch University Seattle and is part of her research for her doctoral

dissertation. This study has been approved by the Antioch University Institutional

Review Board. Participation in the survey typically takes 10 minutes and is strictly

anonymous. All responses are treated as confidential, and in no case will responses from

individual participants be identified. Rather, all data will be pooled and published in

aggregate form only. Participants should be aware that a secure server is being used for

this survey, the online survey company is Canadian, and all data will be stored in Canada.

Many individuals find participation in this type of study enjoyable and participation may

provide you the opportunity to clarify your own opinions about collaboration with

primary healthcare physicians. The survey includes an option that will allow you to

withdraw from the survey. If you choose this option, all responses from you will be

discarded. I will not attempt to capture information you do not voluntarily provide.

Survey research of this nature is considered to be of minimal risk to participants.

However there is a possibility of uncomfortable feelings coming up as a result of the

participation in any survey. If negative feelings arise from your participation in the

survey, you may choose to talk to a friend or trusted advisor or use any other remedy for

stress you usually employ. Results will be published in peer-reviewed journals and

disseminated at national and international scholarly meetings. If participants have further

questions about the study or wish to express a concern, they may contact the principal

investigator, Margaret Drewlo at 778-881-6945 or mdrewlo@antioch.edu; Professor

Patricia Linn, PhD, Dissertation Chair, at 206-268-4825 or plinn@antioch.edu; or the

Antioch University Institutional Review Board, Alejandra Suárez, PhD at 206-268-4823

or asuarez@antioch.edu

Collaboration entre psychologues et médecins en soins de santé primaires

S'il vous plaît remplir en français ou en anglais. Merci.

Please complete in either French OR English. English text follows the French. Please

scroll down for English text. Thank you.

Description

Le but de ce questionnaire est d'identifier les facteurs pour une collaboration optimale entre psychologues et médecins en soins de santé primaires, à travers une exploration des attitudes des psychologues certifiés ou enregistrés au Canada. Pour les besoins de cette étude, le terme collaboration est défini comme un processus qui requiert des relations et interactions entre les professionnelles de la santé, peu importe s'ils sont membres d'une équipe formelle, ou moins formelle, ou d'un groupe virtuel de professionnels de la santé travaillant ensemble pour fournir des soins exhaustifs et continus à un patient/client (Fondation canadienne de la recherche sur les services de santé, 2006). Interprofessionnel est défini comme une relation de travail dans laquelle les compétences d'un professionnel, son savoir et ses rôles sont adaptés pour s'intégrer à ceux d'autres professions (Finch 2000). Patient est le plus souvent un terme médical, alors que client est un terme utilisé en psychologie. Pour les besoins de cette étude sur les soins de santé primaires, le terme client est utilisé. Soins primaires inclus les soins de santé essentiels; basé sur une méthode et une technologie scientifiquement, pratiquement et socialement acceptables; universellement accessible à la communauté à tous les niveaux de participation; à un coût abordable; et dirigé vers l'autonomie et l'autodétermination (WHO &; Unicef, 1978). Actuellement, les soins de santé primaires offerts au Canada le sont principalement par les médecins en santé familiale et les médecins généralistes qui se concentrent sur le diagnostic et le traitement de maladies et blessures (Santé Canada 2011). Merci à l'avance pour votre participation à ce sondage. Cette étude est menée par Margaret Drewlo, M.A., étudiante au doctorat, psychologue clinicienne, Université d'Antioch à Seattle, et fait partie des recherches reliées à sa thèse de doctorat. Cette étude a été approuvée par l'Antioch University Institutional Review Board. La participation à ce sondage prend normalement 10 minutes et est strictement anonyme. Les réponses seront traitées de manière confidentielle, et en aucun cas les réponses d'un participant ne seront identifiées individuellement. Toutes les informations seront regroupées et publiées uniquement dans leur ensemble. Les participants doivent savoir qu'un serveur sécurisé est utilisé pour les besoins de cette étude, que la firme de sondage en ligne est canadienne et que toutes les informations seront emmagasinées au Canada. Plusieurs participants considèrent que leur participation à ce sondage a été agréable et que celle-ci leur a permis de clarifier leurs opinions face à leur collaboration avec des médecins en soins de santé primaires. Le sondage inclus des options qui vous permettront de vous retirer de celui-ci. Si vous choisissez cette option, toutes vos réponses seront détruites. Je n'essaierai pas de reconstituer une information que vous n'avez pas volontairement fournie. Un sondage d'étude de cette nature est considéré comme un risque minimal pour les participants. Par contre, certaines émotions inconfortables pourraient surgir de votre participation à tout

sondage. Si ce genre d'émotions inconfortables surgit suite à votre participation à ce sondage, vous pourriez ressentir le besoin de vous confier à un ami ou à un conseiller de confiance ou bien d'utiliser tout autre recours contre le stress que vous employer normalement. Les résultats seront publiés dans des journaux professionnels et disséminés lors de rencontres éducationnelles nationales et internationales. Si les participants ont des questions à propos de ce sondage ou désirent exprimer des inquiétudes face à celui-ci, ils peuvent contacter l'enquêtrice principale, Margaret Drewlo au 778-881-6945 ou à mdrewlo@antioch.edu; ou bien Professor Patricia Linn, PhD, Dissertation Chair, au 206-268-4825 ou à plinn@antioch.edu; ou bien l'Antioch University Institutional Review Board, Alex Suarez, PhD au 206-268-4823 ou à asuarez@antioch.eduL'utilisation du genre masculin a été adoptée afin de faciliter la lecture et n'a aucune intention discriminatoire.

Démographie

1. Quel est votre sexe ?

2. Quel âge avez-vous ?

3. Depuis combien d'années pratiquez-vous en tant que psychologue ?

4. Dans quelle province ou quel territoire pratiquez-vous principalement la profession de psychologue ?

5. Pratiquez-vous aussi dans une autre province ou un autre territoire ? Si oui, dans quelle province ou quel territoire ?

6. Quel est votre principal environnement de travail ?
- Académique
- Organisme communautaire de soutien psychologique
- Santé communautaire
- Organisme communautaire de services sociaux

○ Médicolégal

○ Groupe de pratique

○ Hôpital/Centre hospitalier

○ Éducationnelle

○ Pratique individuelle

○ Autre

7. Si vous avez un environnement de travail secondaire, quel est-il ?

○ Académique

○ Organisme communautaire de soutien psychologique

○ Santé communautaire

○ Organisme communautaire de services sociaux

○ Médicolégal

○ Groupe de pratique

○ Hôpital/Centre hospitalier

○ Éducationnelle

○ Pratique individuelle

○ Autre

8. Quel est votre principal champ de pratique en psychologie ?

○ Enfance

○ Clinique

○ Neuropsychologie clinique

○ Communautaire

○ Développemental

○ Eco-psychologie

○ Éducationnelle

○ Médicolégal

○ Géronto-psychologie

○ Santé

○ Personnalité

○ Réhabilitation

○ Social

○ Sports

○ Autre

9. Si vous avez un sous-champ de pratique, quel est-il ?

○ Enfance

○ Clinique

○ Neuropsychologie clinique

○ Communautaire

○ Développemental

○ Eco-psychologie

○ Éducationnelle

○ Médicolégal

○ Géronto-psychologie

○ Santé

○ Personnalité

○ Réhabilitation

○ Social

○ Sports

○ Autre

○ Aucun

10. Quel est votre niveau de scolarité le plus élevé, relatif à votre profession de

psychologue ?

○ Doctorat en psychologie clinique (D.Psy.) (PhD - Clinical Psychology)

○ Doctorat en psychologie (Ph.D.) (PhD - Counselling Psychology)

○ Doctorat de Psychologie de l'éducation (EDD)

○ Maîtrise ès Arts – Psychologie (MA)

○ Maîtrise recherche (M.Sc.) – Psychologie (MS)

○   Maîtrise en service social (MSW)

○   Thérapeute conjugal et familial (MFT - Marriage and Family Therapy)

○   Autre. Veuillez spécifier: _____

11. Avez-vous reçu de l'enseignement ou une formation entourant les problèmes de

santé ?

○   Oui

○   Non

12.Avez-vous effectué un internat en milieu hospitalier ?

○   Oui

○   Non

13. Avez-vous reçu un enseignement interprofessionnel au cours de votre programme

d'études ?

○   Oui

○   Non

14. Avez-vous reçu une formation dans un environnement interprofessionnel au cours de

votre programme ?

○   Oui

○   Non

15. L'enseignement que j'ai reçu m'a bien préparé à une collaboration avec des médecins

en soins de santé primaires.

○   Fortement en accord

○   En accord

○   Neutre

○   En désaccord

○   Fortement en désaccord

16. Les psychologues ont besoin d'être mieux éduqués ou formés en ce qui concerne

l'identification des troubles de la santé de leurs clients.

○ Fortement en accord

○ En accord

○ Neutre

○ En désaccord

○ Fortement en désaccord

17. Quel est le pourcentage de vos clients provenant d'une référence par des médecins en soins de santé primaires ?

18. Pour quel pourcentage de votre clientèle collaborez-vous avec des médecins en soins de santé primaires ?

19. Communiquez-vous vos commentaires et suggestions (feedback) au sujet de vos clients référés au médecin référent ?

○ Fortement en accord

○ En accord

○ Neutre

○ En désaccord

○ Fortement en désaccord

○ Ne s'applique pas

20. Est-ce que le médecin référent vous offre un soutien continu tout au long de votre intervention auprès du client référé ?

○ Fortement en accord

○ En accord

○ Neutre

○ En désaccord

○ Fortement en désaccord

○ Ne s'applique pas

21. Je suis à l'aise de donner mes commentaires et suggestions (feedback) au médecin en soins de santé primaires d'un client.

○ Fortement en accord

○ En accord

○ Neutre

○ En désaccord

○ Fortement en désaccord

○ Ne s'applique pas

22. Pouvez-vous élaborer votre réponse à cette question, s'il vous plait ?

23. Ma collaboration actuelle avec les médecins en soins de santé primaires optimise efficacement les soins aux clients.

○ Fortement en accord

○ En accord

○ Neutre

○ En désaccord

○ Fortement en désaccord

○ Ne s'applique pas

24. Je dois respecter une hiérarchie lors de mes relations avec les médecins en soins de santé primaires lorsque j'interagis avec eux professionnellement.

○ Fortement en accord

○ En accord

○ Neutre

○ En désaccord

○ Fortement en désaccord

○ Ne s'applique pas

25. Pouvez-vous élaborer votre réponse à cette question, s'il vous plait ?

26. Les médecins en soins de santé primaires sont accessibles si, et quand, je désire les consulter au sujet d'un client mutuel.

○ Fortement en accord

○ En accord

○ Neutre

○ En désaccord

○ Fortement en désaccord

○ Ne s'applique pas

27. Je suis disponible pour les médecins qui veulent me consulter au sujet d'un client mutuel.

○ Fortement en accord

○ En accord

○ Neutre

○ En désaccord

○ Fortement en désaccord

○ Ne s'applique pas

28. Je suis disponible pour les médecins qui veulent me consulter dans le but de partager mon savoir psychologique.

○ Fortement en accord

○ En accord

○ Neutre

○ En désaccord

○ Fortement en désaccord

○ Ne s'applique pas

29. Les médecins référents sont disponibles pour des consultations dans le but de partager leur savoir médical.

○ Fortement en accord

○ En accord

○ Neutre

○ En désaccord

○ Fortement en désaccord

○ Ne s'applique pas

30. Une collaboration avec le médecin en soins primaires de mon client est nécessaire

pour le traitement de ce client.

○ Fortement en accord

○ En accord

○ Neutre

○ En désaccord

○ Fortement en désaccord

○ Ne s'applique pas

31. Je me sens respecté par les médecins en soins de santé primaires lors de mes contacts

avec eux au sujet des traitements à offrir aux clients.

○ Fortement en accord

○ En accord

○ Neutre

○ En désaccord

○ Fortement en désaccord

○ Ne s'applique pas

32. Les médecins en soins de santé primaires avec lesquels je suis en contact

comprennent l'enseignement que j'ai reçu.

○ Fortement en accord

○ En accord

○ Neutre

○ En désaccord

○ Fortement en désaccord

○ Ne s'applique pas

33. Une collaboration ou interaction entre psychologues et médecins peut prendre

plusieurs formes. Laquelle serait la plus viable pour vous dans le cadre de votre pratique

actuelle ? (Cochez une case seulement.)

○ Une forme classique de référence et consultation (recevoir un formulaire de référence et communiquer un rapport verbal ou écrit).

○ Une collaboration informelle/consultation « de corridor » (rencontres non-planifiées, non structurées pour informer vos collègues du progrès d'un cas et de vos impressions générales sur ce cas).

○ Une collaboration formelle (travail d'équipe, rencontres planifiées pour discuter des aspects pertinents du traitement, incluant les progrès thérapeutiques, les problèmes de médication et les inquiétudes, recommandations et pronostics).

○ Co-traitement (consultations/rencontres régulières et fréquentes et partage des objectifs mutuels préalablement convenus envers le traitement du client).

○ Co-thérapie (présence conjointe du psychologue et du médecin traitant lors de certaines sessions avec le client).

○ Aucune

○ Autre. Veuillez spécifier, s'il vous plait : _____

34. En référence à la question 33, quelle forme de collaboration préféreriez-vous?

(Cochez une case seulement).

○ Une forme classique de référence et consultation (recevoir un formulaire de référence et communiquer un rapport verbal ou écrit).

○ Une collaboration informelle/consultation « de corridor » (rencontres non-planifiées, non structurées pour informer vos collègues du progrès d'un cas et de vos impressions générales sur ce cas).

○ Une collaboration formelle (travail d'équipe, rencontres planifiées pour discuter des aspects pertinents du traitement, incluant les progrès thérapeutiques, les problèmes de médication et les inquiétudes, recommandations et pronostics).

○ Co-traitement (consultations/rencontres régulières et fréquentes et partage des objectifs mutuels préalablement convenus envers le traitement du client).

○   Co-thérapie (présence conjointe du psychologue et du médecin traitant lors de certaines sessions avec le client).

○   Aucune

○   Autre. Veuillez spécifier, s'il vous plait : _____

35. Selon vous, lequel des facteurs suivants a un impact sur le processus de collaboration avec un médecin en soins de santé primaires ? Choisir tous ceux qui s'appliquent.

☐   Orientation théorique/idéologique

☐   Langage professionnel commun

☐   Styles/techniques de travail

☐   Votre disponibilité pour le médecin en soins de santé primaires

☐   La disponibilité du médecin en soins de santé primaire pour vous

☐   Les attentes face à l'évaluation et au traitement

☐   Comment chacun voit le rôle professionnel de l'autre

☐   L'information sur la compétence de l'autre

☐   L'impression de, le cas échéant, à qui « appartient » la relation avec le client. Par exemple, entre quelques professions, il peut exister une « guerre de territoire ».

36. De façon générale, quels avantages voyez-vous, pour vos clients, à une collaboration améliorée avec les médecins en soins de santé primaires?

37. Quelle est, selon vous, la plus grande barrière à une collaboration efficace entre psychologues et médecins en soins de santé primaires ?

38. Que suggéreriez-vous que les médecins en soins de santé primaires pourraient faire pour améliorer leur collaboration avec les psychologues ?

39. Que pourriez-vous faire vous-mêmes pour améliorer votre collaboration avec les médecins en soins de santé primaires ?

Le questionnaire est terminé. Merci de votre participation! Si vous désirez courir la chance de gagner un des six prix de $50.00 en certificats-cadeaux d'Indigo Books, s'il vous plait vous rendre au : http://fluidsurveys.com/s/pphcpthanks/

Primary Healthcare Physician Collaboration

Description of Questionnaire

The purpose of this questionnaire is to identify factors in optimal collaboration between psychologists and primary healthcare physicians through an exploration of attitudes of psychologists licensed or registered in Canada. For the purposes of this study, collaboration is defined as a process that requires relations and interactions between health professionals, regardless of whether they are members of a formalized team or a less formal or virtual group of health professionals working together to provide comprehensive and continuous care to a patient/client (Canadian Health Services Research Foundation, 2006). Interprofessional is defined as a working relationship in which a professional's skills, knowledge and roles are adapted to fit in with other professions (Finch, 2000). Patient is often a medical term, whereas client is a term used in psychology. For the purposes of this study of primary healthcare, the term client will be used. Primary Care includes essential health care; based on practical, scientifically sound, and socially acceptable method and technology; universally accessible to all in the community through their full participation; at an affordable cost; and geared toward self-reliance and self-determination (WHO & Unicef, 1978). At present, primary care services in Canada are delivered chiefly by family physicians and general medical practitioners

who focus on the diagnosis and treatment of illness and injury (Health Canada,

2011).Thank you in advance for your participation in the survey. The study is being

conducted by Margaret Drewlo, MA, Doctoral student, Clinical Psychology, Antioch

University Seattle and is part of her research for her doctoral dissertation. This study has

been approved by the Antioch University Institutional Review Board. Participation in the

survey typically takes 10 minutes and is strictly anonymous. All responses are treated as

confidential, and in no case will responses from individual participants be identified.

Rather, all data will be pooled and published in aggregate form only. Participants should

be aware that a secure server is being used for this survey, the online survey company is

Canadian, and all data will be stored in Canada. Many individuals find participation in

this type of study enjoyable and participation may provide you the opportunity to clarify

your own opinions about collaboration with primary healthcare physicians. The survey

includes an option that will allow you to withdraw from the survey. If you choose this

option, all responses from you will be discarded. I will not attempt to capture information

you do not voluntarily provide. Survey research of this nature is considered to be of

minimal risk to participants. However there is a possibility of uncomfortable feelings

coming up as a result of the participation in any survey. If negative feelings arise from

your participation in the survey, you may choose to talk to a friend or trusted advisor or

use any other remedy for stress you usually employ. Results will be published in peer

reviewed journals and disseminated at national and international scholarly meetings. If

participants have further questions about the study or wish to express a concern, they may

contact the principal investigator, Margaret Drewlo at 778-881-6945 or

mdrewlo@antioch.edu; Professor Patricia Linn, PhD, Dissertation Chair, at 206-268-

4825 or plinn@antioch.edu; or the Antioch University Institutional Review Board, Alex

Suarez, PhD at 206-268-4823 or asuarez@antioch.edu

1. What is your gender?

2. What is your age in years?

3. How many years have you been in practice as a psychologist?

4. Which province or territory is your primary location of work as a psychologist?

5. Do you work as a psychologist in another province or territory? If so, which province

or territory?

6. What is your primary work setting?

- ○ Academic
- ○ Community Counselling Agency
- ○ Community Health
- ○ Community Social Service Agency
- ○ Forensic

○   Group Practice

○   Hospital Based

○   School Based

○   Solo Practice

○   Other _____

7. If you have a secondary work setting which is it?

○   Academic

○   Community Counselling Agency

○   Community Health

○   Community Social Service Agency

○   Forensic

○   Group Practice

○   Hospital Based

○   School Based

○   Solo Practice

○   Other _____

○   None

8. What is your main field in psychology?

○   Child

○   Clinical

○   Clinical Neuropsychology

○   Community

○   Developmental

○   Ecopsychology

○   Educational

○   Forensic

○   Geropsychology

○   Health

○   Personality

○   Rehabilitation

○   Social

○   Sports

○   Other _____

9. If you have a sub-field, which is it?

○   Child

○   Clinical

○   Clinical Neuropsychology

○   Community

○   Developmental

○   Ecopsychology

○   Educational

○   Forensic

○   Geropsychology

○   Health

○   Personality

○   Rehabilitation

○   Social

○   Sports

○   Other _____

○   None

10. What is highest level of education that pertains to your work as a psychologist?

○   PhD - Clinical Psychology

○   PhD - Counselling Psychology

○   EdD

○   MA - Psychology

○   MS - Psychology

○   MSW

○   MFT

○   Other, please specify _____

11. Have you received education or training in medical issues?

○   Yes

○   No

12. Have you interned in a medical setting?

○   Yes

○   No

13. Did you receive interprofessional education as part of your graduate program?

○   Yes

○   No

14. Did you receive training in an interprofessional setting during your program?

○   Yes

○   No

15. My education prepared me well for collaboration with primary healthcare physicians

○   Strongly Agree

○   Agree

○   Neutral

○   Disagree

○   Strongly Disagree

16. Psychologists need to be better educated and trained regarding the identification of

medical problems in clients

○   Strongly Agree

○   Agree

○   Neutral

○   Disagree

○   Strongly Disagree

17. What percentage of your clients come from referral by primary healthcare

physicians?

18. What percentage of your clients do you collaborate upon with primary healthcare

physicians?

19. Do you provide feedback about referred clients to the referring physician?

○   Strongly Agree

○   Agree

○   Neutral

○   Disagree

○   Strongly Disagree

○   Not Applicable

20. Does the referring physician provide you with ongoing assistance in your care of a

referred client?

○   Strongly Agree

○   Agree

○   Neutral

○   Disagree

○   Strongly Disagree

○   Not Applicable

21. I am comfortable giving feedback about a client to their primary healthcare physician

○   Strongly Agree

○   Agree

○   Neutral

○   Disagree

○   Strongly Disagree

○   Not Applicable

22. Can you please elaborate on your answer?

23. My current collaboration with primary healthcare physicians is effective in

optimizing client care

○   Strongly Agree

○   Agree

○   Neutral

○   Disagree

○   Strongly Disagree

○   Not Applicable

24. There is a hierarchy in my relationship with the primary healthcare physicians with

whom I relate in a professional capacity

○   Strongly Disagree

○   Disagree

○   Neutral

○   Agree

○   Strongly Agree

○   Not Applicable

25. Can you please elaborate on your answer?

26. Primary healthcare physicians are accessible if and when I want to consult with them

about a mutual client

○   Strongly Agree

○   Agree

○   Neutral

○   Disagree

○   Strongly Disagree

○   Not Applicable

27. I am accessible if physicians want to consult with me about a mutual client

○   Strongly Agree

○   Agree

○   Neutral

○   Disagree

○   Strongly Disagree

○   Not Applicable

28. I am accessible if physicians want to consult with me for the purposes of sharing my

psychological knowledge

○   Strongly Agree

○   Agree

○   Neutral

○   Disagree

○   Strongly Disagree

○   Not Applicable

29. Referring physicians are accessible to consult with for the purposes of sharing their

medical knowledge

○   Strongly Agree

○   Agree

○   Neutral

○   Disagree

○   Strongly Disagree

○   Not Applicable

30. Collaboration with my client's primary healthcare physician is necessary for the care

of my client

○ Strongly Agree

○ Agree

○ Neutral

○ Disagree

○ Strongly Disagree

○ Not Applicable

31. I feel respected by primary healthcare physicians during periods of contact regarding

patient care

○ Strongly Agree

○ Agree

○ Neutral

○ Disagree

○ Strongly Disagree

○ Not Applicable

32. My education is understood by the primary healthcare physicians with whom I come

into contact

○ Strongly Agree

○ Agree

○ Neutral

○ Disagree

○ Strongly Disagree

○ Not Applicable

33. Collaboration or interaction between psychologists and physicians can take a variety

of forms. Which type would you find most viable within your actual practice? (Check

only one.)

○ Classic form of referral and consultation (receive a referral form and send a written or verbal report).

○ Informal collaboration/ corridor consultation (unscheduled, unstructured meetings to

apprise colleagues of progress and general impressions of a case).

○ Formal collaboration (teamwork, scheduled meetings to discuss pertinent aspects of care, including therapeutic progress, medication issues, concerns, and recommendations or prognoses).

○ Co-provision of care (regular, frequent consultations/meetings and mutually agreed upon goals for client care).

○ Co-therapy (joint presence of psychologist and physician for some sessions with a client).

○ None

○ Other, please specify: _____

34. Referring to question 33, which form of collaboration would you prefer? (Check only one.)

○ Classic form of referral and consultation (receive a referral form and send a written or verbal report).

○ Informal collaboration/ corridor consultation (unscheduled, unstructured meetings to apprise colleagues of progress and general impressions of a case).

○ Formal collaboration (teamwork, scheduled meetings to discuss pertinent aspects of care, including therapeutic progress, medication issues, concerns, and recommendations or prognoses).

○ Co-provision of care (regular, frequent consultations/meetings and mutually agreed upon goals for client care).

○ Co-therapy (joint presence of psychologist and physician for some sessions with a client).

○ None

○ Other, please specify: _____

35. From your perspective, which if any of the following factors have an impact on the collaborative process with primary healthcare physicians? Please check all that apply

☐ Theoretical/ideological orientation

☐ Common professional language

☐ Working styles/techniques

☐ The primary healthcare physician's accessibility to you

☐   Your accessibility to the primary healthcare physician

☐   Expectations for assessment and treatment

☐   How each views the other's professional role

☐   Information on the other's expertise

☐   The view of who if anyone, "owns" the working relationship with the client. For example, between some professions, there may exist a "turf war"

36. In general, what advantages do you see for your clients with improved collaboration with their primary healthcare physicians?

37. What do you see as the biggest barrier to effective collaboration between psychologists and primary healthcare physicians?

38. What do you suggest primary healthcare physicians could do to improve collaboration with psychologists?

39. What can you do to improve collaboration with primary healthcare physicians?

This is the end of the questionnaire. Thank you for participating! If you would like to enter your name in a draw for one of six $50.00 gift certificates to Indigo Books, please go to: http://fluidsurveys.com/s/pphcpthanks/

Appendix H

Application to Advertise Study on CPA Website

Title: Psychologist-Physician Collaboration from the Psychologist Point of View

Abstract: Little is known about the opinions of clinical psychologists in their work with primary healthcare physicians. This study entitled, "Psychologist-Physician Collaboration from the Psychologist Point of View", investigates the extent and factors in the collaboration relationship of psychologists and primary healthcare physicians. For the purposes of this study, the definition of collaboration is, "a process that requires relations and interactions between health professionals, regardless of whether they are members of a formalized team or a less formal or virtual group of health professionals working together to provide comprehensive and continuous care to a patient/client (Canadian Health Services Research Foundation, 2006). This research is being conducted by Margaret Drewlo, doctoral student, clinical psychology, Antioch University Seattle, for use in her doctoral research.

Your participation will entail completing a brief online survey that will last approximately 10 minutes. You will be asked to complete a series of demographic and other questions about your thoughts on collaborating with primary healthcare physicians. The results of this doctoral dissertation research will be important in furthering understanding of ways to optimize collaboration to improve patient care. Results will be disseminated at national and international scholarly meetings and

published in a peer-reviewed journal. Your responses will be entirely anonymous and will not be identified with you in any manner. Your anonymous results will be stored under locked conditions for use in my dissertation research. Your participation is entirely voluntary. You may choose not to participate, withdraw at any time or refuse to answer

any question. You may contact Dr. Patricia Linn, Dissertation Committee Chair at 206-

268-4825; plinn@antioch.edu or myself, Margaret Drewlo at 604-929-6945;

mdrewlo@antioch.edu with any questions you may have.

Researcher: Margaret Drewlo

Study Population: Canadian Clinical Psychologists

Participant Obligation: Complete a 10-minute online survey.

Location: Online-Vancouver, BC

Study runs: February 10, 2013 – May 16th 2013

http://app.fluidsurveys.com/surveys/mdrewlo/psychologist-physician-colla/

Appendix I

Email Message of Invitation to Participate

From: Margaret Drewlo

Subject: Factors in Optimal Collaboration Between Psychologists and Primary

Healthcare Physicians

Dear (Name of CPA or Provincial or Territorial Member):

As part of my doctoral research I am conducting a survey to gain the views of

psychologists collaborating with primary healthcare physicians, also known in Canada as

family doctors or family physicians. I am attempting to determine the factors that

optimize this working relationship. Your participation in this research is important as it

represents an unstudied phenomenon in the collaboration literature and results may help

to further the profession of psychology in Canada.

Informed Consent

The survey takes about 10 minutes to complete and is voluntary and confidential. Your

name will not be linked to your responses in any way. The data will be used to evaluate

the factors in optimal collaboration between psychologists and physicians from the

psychologist point of view. You may decline to participate in the survey or stop at any

time. There is no deception involved, and the study involves no more than minimal risk

to participants (i.e., the level of risk encountered in daily life). However, it is possible that

responding to any or all questions may engender feelings of discomfort. The survey

includes an option that will allow you to withdraw from the survey. If you choose this

option, all responses from you will be discarded. I will not attempt to capture information

that you do not voluntarily provide. I have employed FluidSurveys, a survey firm that

stores all data in Canada.

It is not anticipated that there will be any negative effects associated with participation in this study. However, if negative feelings arise from your participation in the survey you may choose to use your usual stress relieving techniques or to seek therapy or consultation.

To participate in the survey, please click on the following link:

http://app.fluidsurveys.com/surveys/mdrewlo/psychologist-physician-colla/

Each participant may choose to be entered into a draw for one of six $50 gift certificates to Indigo Books. After you complete the survey you will receive instructions on how to enter your name into the draw.

If you have any questions please contact me at 778-881-6945; or mdrewlo@antioch.edu, or Professor Patricia Linn, PhD, Dissertation Chair at 206-268-4825.

Thank you,

Margaret Drewlo

Appendix J

Responses to Question 33 "Other"

Type of Collaboration Most Viable

R: both response #1 and #3; generally no follow-up following assessment/diagnostic process

R: classic, and informal, and by phone meetings are untenable in most cases

R: We do a combination of classic, informal and co-therapy at times

R: There is nothing like a phone call and speaking directly to each other.

R: sometimes frequently

R: I receive a call or referral form and I call back to discuss before seeing the patient, if I see more medical information is needed--or if not I call back in the course of treatment if medication or other concerns need to be discussed, or I call my colleague at the close of treatment to give a verbal summary.

R: Telephone or email

R: Mix of formal collaboration and co-provision of care

R: because we are all occupied, always a report after assessment and a few telephone calls about the clients, more telephonic call about the client

R: classic form of referral/consultation, though with phone contact in addition to the written referral

R: All of the above would be lovely, funding models do not support and therefore are not viable. For example, if I had to write a note back for each referral, sometimes I may see someone only once or twice, I am not funded for writing notes, reports.

R: We work directly with specialists. We also consult to community physicians ((mainly G.P.s and Pediatricians). This involves written and phone communication.

R: phone consult

R: phone consult, who has the time to send a written report and who would pay for it.

R: when I worked in a family medical centre for 15 years and worked with family medicine residents there was a huge amount of collaboration within team meetings and one-on-one communication. In private practice the privacy of the client is important and I do not automatically write the family physician without permission and unless there is a good reason to do so e.g. the client health and welfare would be enhanced/supported.

R: informal discussion most feasible when md works in same organization, otherwise phone contact most feasible

R: referral to physician for medication

R: A mixture of the above except for formal collaboration and co-provision

R: a scheduled phone contact

R: depending on where I am working

R: Client-directed, progress reports sent to client to share with primary local caregivers as case requires

R: varies depending on the case. Also, collaboration with psychiatrists seems to be excluded from your survey?

R: All of the above may apply, depending on the particular needs of the client.

R: Mix of formal and informal collaboration.

R: like a combo of options 2-4, but with regular written feedback on client's progress to the physician or nurse practitioner

R: Formal professional collaboration

R: variable according to need

R: again, the client shares the report if they wish to

R: Formal collaboration with Psychiatrist, Classic form with family physicians

R: Combination of classic and co-provision

R: All of the above

R: Verbal

R: Telephone when needed

R: Varies according to the customers, but also according to doctors. The most viable form is the one that fits both the problem and the client's personality, as well as the personalities of the psychologist and physician ... The theoretical ideal can be encouraged but is not viable in all cases, or even better for customers

R: I think that each approach can be interesting, depending on the problem.

R: I do not like the idea of the classical form that implies a form of hierarchy. However, it would not be realistic to expect the plan to happen in person considering the limits of private practice meetings. It could be made by telephone.

R: It's not a real interaction in the literal sense. The client asks me to write a letter for him/her for his/her doctor as I'm generally more able to articulate issues. I never hear back from the doctor. I can't even confirm if the letter was read or taken seriously.

R: phone calls in either direction to discuss elements of the case, as necessary and indicated

R: verbal and written exchange about the treatment plan and progress.

R: Classic referral but no report from our agency unless requested by the client or deemed necessary and agreed to by client.

Appendix K

Responses to Question 34 "Other"

Type of Collaboration Preferred

R: I like how we are doing it as above in question 33. (Combination of classic, informal, and co-therapy) It provides for a good mix of independence and collaboration

R: Insurance companies are often the thorn in the process and I find that physicians and myself are talking so we are on the same page.

R: what I have been doing works very well for my patient population

R: A mix of formal collaboration and co-provision of care

R: not co-provision of care, simply more collaboration

R: Again, I think this has to do with funding models, and different models are appropriate for different client needs and difficulties. So a flexible model would be the best.

R: I would prefer direct collaboration with a Primary Care Network, which I did in the past. We work in the same building and have a range of interactions (formal/informal). Few physicians get paid for this, so meetings tend to be very short.

R: phone consultation

R: telephone consultation

R: sometimes formal collaboration would be indicated, sometimes informal collaboration is sufficient

R: okay with what I have but would increase co-provision and co-therapy if possible

R: depending on the work place

R: client-directed with consent for collaboration by phone or submitted progress report as required

R: Again, it'll vary depending the ongoing problem

R: since I have few referrals from primary care physicians (I work with mainly psychiatrists). The work with psychiatrists consists of conference case and work varying from formal collaboration, co-provision of care and co-therapy depending on needs of client and also on work method applied by psychiatrist

R: The biggest obstacle is lack of time. Neither physicians nor do not normally have time to meet with me in a formal or informal setting to discuss patients.

R: A combination of informal collaboration and formal collaboration

R: I have worked this way in the past and it is extremely helpful in reducing barriers to psychological treatment

R: Phone calls in either direction to discuss elements of the case, as necessary and indicated.

R: Verbal and written exchange on the treatment plan and progress.

R: Depending on the context, both informal collaboration and at times the formal collaboration would be appreciated.