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Rehabilitation Therapists' Clinical Questions in the Context of Evidence-based Patient Care: An Exploratory Study[1]

Abstract: In this qualitative study, rehabilitation therapists (occupational therapists, physiotherapists, and speech-language pathologists) working in stroke care will be asked about their clinical questions. The goals of the study are: to identify common characteristics of questions, to develop a typology of questions, and to uncover reasons why certain questions are pursued.
Résumé:

1. Introduction

Evidence-based practice (EBP) has emerged as an influential social movement in health care, beginning with physicians before proceeding to nurses and other health professionals. In the 21st century, health information is abundant, and the challenge is no longer to find or access information, but to locate and make use of good quality information, or evidence, in order to deliver the best possible health care. In information studies, the information behaviour of health professionals, including physicians, nurses, and rehabilitation therapists, can be studied to better understand what information these clinicians need, how they seek information, and how they use information to inform practice.

Rehabilitation therapists, including occupational therapists (OTs), physiotherapists (PTs), and speech-language pathologists (SLPs), play an essential role in health care. Even so, their information behaviour is overlooked in library and information studies (LIS) literature. By contrast, the information behaviour of health professionals such as physicians and nurses is better understood as a result of many studies conducted on their information needs, information-seeking and use.

In order to improve education initiatives and information services for rehabilitation therapists in support of EBP, their information behaviour, particularly their information needs, require identification and explanation. This study will explore the information needs of rehabilitation therapists that arise during the patient encounter, that is, their clinical questions, as a step in understanding rehabilitation therapists' information behaviour and how it compares to that of other health professionals.

2. Background and Problem

Rehabilitation therapists, who are distinct from physicians and nurses, are a growing proportion of health professionals. In 2007, there were 16,108 PTs (Canadian Institute for Health Information [CIHI] 2008c) and 12, 296 OTs (CIHI, 2008b) active in Canada. SLPs and audiologists (for whom data are combined in the national census) numbered 6,221 in 2001, the most recent year for which data are available (CIHI, 2007). As a comparison, in 2007, there were 63,682 active physicians in Canada (CIHI, 2008a). As health professionals, rehabilitation therapists engage in information behaviour: they identify information needs, decide whether or not to seek answers to these needs, engage in seeking behaviour, and then decide how to use the information to improve patient care.

Even so, rehabilitation therapists are neglected in the literature on information behaviour in LIS. While several studies purport to describe the information behaviour of rehabilitation therapists, none of these were conducted by information-studies researchers in the context of information-behaviour theory. Rather, these were often needs assessment surveys or database usability studies conducted by librarians or database providers and lacked reference to a conceptual framework. Information seeking is but one aspect of information-behaviour research, along with needs and use. Few of these studies report on the actual information needs of rehabilitation therapists in any depth.

In her review of information-seeking behaviour, Marshall (1993) remarked that there was very little research on professionals others than physicians, and this proportion remains relatively constant to the present day. Case's 2007 book, which summarized theory and research on the subject of information behaviour, included references to hundreds of studies on clinicians (p. 265-272). However, only seven of these studies, discussed in a single paragraph, described the information behaviour of health professionals other than physicians and nurses. These include research on "dentists, hospital social workers, at-home care providers, midwives, and practitioners of alternative medicine" (Case 2007, p. 271). Absent from this list is any mention of research studies on rehabilitation therapists. To date, no review has included the information behaviour of rehabilitation therapists, who, in addition to having different educational background from physicians and nurses, work in different settings and provide healthcare service that is distinct from other health professionals.

As a result, little is known about the information needs that arise in rehabilitation therapists' everyday practice and how they cope with these needs through information seeking and use. The education and practice of rehabilitation therapists is distinct from other health professionals, and there is therefore no reason to suppose their information behaviour is not distinct as well.

At the same time, the EBP framework is being encouraged in the field of rehabilitation (Bury and Mead 1998;Plastow 2006;Reilly, Douglas, and Oates 2004;Taylor 2000), and rehabilitation therapists are expected to be skilled at asking clinical questions, retrieving relevant evidence, and appraising and applying the evidence to their practice (American Physical Therapy Association 2005;CAOT, 2008;Robey et al. 2004). It has also been suggested that rehabilitation therapists may have different elements in their clinical questions, compared to the typical EBP framework (Bennett and Bennett 2000;Schlosser, Koul, and Costello 2007).

There is much evidence to inform rehabilitation therapists' clinical practice, but research suggests that is often not used (Dysart and Tomlin 2002;Jette et al. 2003;Sweetland and

Craik 2001;Turner and Whitfield 1997). That is, despite efforts to teach and promote EBP, it is not being implemented by rehabilitation therapists. Various obstacles have been identified that inhibit the implementation of EBP in rehabilitation (Humphris et al. 2000;Pollock et al. 2000), including rehabilitation therapists' difficulty in formulating clinical questions (Bennett et al. 2003).

In the past few years, new databases have emerged to support EBP for rehabilitation, including PEDro (Sherrington et al. 2000), OTseeker (McKenna et al. 2004), Hooked on Evidence (Scalzitti 2003), and most recently, EBSCO's Rehabilitation Reference Center. These databases assume that users have specific clinical questions, and that they possess the required search skills to locate evidence. User studies on these databases demonstrate that this is not the case, as search terms entered are often vague (Bennett et al. 2006). The emergence of databases specific to areas in rehabilitation also suggests that this population may have information needs that are different from other groups of health professionals. Research is needed to identify what clinical questions rehabilitation therapists ask, and if these are in fact conducive to EBP as well as whether or not databases are effective in answering these clinical questions.

Given these developments in rehabilitation practice, information studies can potentially contribute to the improvement of patient care by better understanding the clinical questions that arise in rehabilitation therapists' everyday practice. Once these clinical questions are better understood, researchers can work to close to the gap between clinical research and practice through improved education and information services.

3. Conceptual Framework

Two broad concepts form the conceptual framework for this research: information behaviour, drawn from the discipline of LIS, and EBP, from the health sciences. The field of information behaviour describes and explains information needs, seeking, and use by individuals in various contexts, while EBP provides a prescriptive model for identifying information needs, seeking evidence, and applying information in the context of patient care.

Information-behaviour models describing question-asking are useful for understanding the concept of the clinical question (a type of information need). Taylor's (1968) model on Question Negotiation and Belkin's (1980) concept of Anomalous States of Knowledge (ASK) inform this research.

Taylor's (1968) model on Question Negotiation emerged from his interest in the reference interaction, or the reference interview. In the reference interaction, the person asking the question is in a difficult situation, as they are trying to describe something they don't know to the librarian. Taylor viewed questions asked by users as dynamic, open-ended and negotiable, rather than as static. His typology of information needs, which is the most often cited in the literature (Case 2007), includes four types of information needs, or questions:

Q1. Visceral need (unexpressed)
Q2. Conscious need (acknowledge, in the brain)
Q3. Formalized need (expressed, formal statement)

Q4. Compromised need (input into the system, e.g., a bibliographic database)

The formalized need (Q3) is the type of information need that this research study is concerned with. According to Taylor, "at this level an inquirer can form a qualified and rational statement of his question. Here he is describing his area of doubt in concrete terms and he may or may not be thinking within the contexts or constraints of the system from which he wants information" (p. 182).

The ASK, as described by Belkin, is similar to Taylor's first two levels, or types of information needs: the visceral need and the conscious need. The ASK, therefore, represents the information need before it is formalized. This type of need is difficult, if not impossible, to study, since it cannot be observed, nor can it be documented without being converted in the third type of information need: the formalized need. When research investigates information needs, then, it is researching the third type, as characterized by Taylor. These studies describe conscious information needs – those information needs acknowledged and articulated by the user. Studies describing and explaining the fourth level of information need – the compromised need – are studies of information seeking, because to express a compromised need is to translate that need for an intermediary, such as a librarian or information system, and to begin the information-seeking process.

Here, a clinical question is defined as a formalized information need. Note that a clinical question need not be in the form an interrogative statement (i.e., ending with a question mark), but may take the form of a declarative statement (Forsythe et al. 1992). It must, however, indicate a gap in information, and be related to patient care.

In addition to models describing question-asking, Leckie, Pettigrew and Sylvain's (1996) model of professionals' information-seeking behaviour is also drawn on for this study. The model proposes how the professional's work role (in this case, providing patient care) may influence information needs and subsequent behaviour. The model begins with the work roles of the professional, or the various "hats" worn by the professional as part of his or her job. Various tasks are associated with each of these roles. For example, for a rehabilitation therapist, various work roles may include that of patient care provider, manager, researcher, and educator. The work role of patient care provider may include such tasks as taking the patient's history, making an assessment and deciding on treatment. These tasks, in turn, lead to information needs – gaps in knowledge identified as a result of performing the tasks. The rehabilitation therapist may require evidence to support a specific treatment plan. These information needs can be described using demographic characteristics, context (situation specific, internal or external), frequency, predictability, importance and complexity.

Whereas Taylor's Question Negotiation model and Belkin's concept of the ASK are useful for defining and understanding the clinical question, Leckie, Pettigrew and Sylvain's model suggests that the professional's work role (in this case, providing patient care) can be understood to influence information needs and subsequent behaviour. These models from LIS, are helpful in explaining why a specific group might behave the way they do. The EBP framework, in the health sciences, is important to understand the context in which rehabilitation therapists practise, and to understand how their information needs and subsequent information behaviour may diverge from expectation.

The EBP framework consists of five steps for implementation and for teaching. Each of these steps has been empirically tested for teaching effectiveness (Dawes et al. 2005). The five steps are best summarized in the Sicily Statement:

> *1. Translation of uncertainty to an answerable question;*
> *2. Systematic retrieval of best evidence available;*
> *3. Critical appraisal of evidence for validity, clinical relevance, and applicability;*
> *4. Application of results in practice;*
> *5. Evaluation of performance.* (Dawes et al., 2005)

The first step, the formulation of a clinical question (also called an *answerable question*) from an uncertainty arising during a patient encounter, is done with the help of a question-framing structure (or template). Framing a clinical question is assumed to help the clinician focus the ensuing literature search, and to improve the likelihood that all relevant, high quality research is retrieved. The most widely used structure originates from EBM and is known by the acronym PICO (for problem, intervention, comparison, outcome) (Richardson et al. 1995). An example provided by Richardson and colleagues of a clinical question following the PICO structure is, "When compared with pulmonary angiography (C), how well does an indeterminate result of ventilation-perfusion scan (I) rule out pulmonary embolism (O) in a patient with a high pretest probability (P)?" (p. A12). For certain questions, the *comparison* (C) element is not applicable, and therefore omitted from the structure. The PICO structure is also employed in the allied health professions, including rehabilitation therapy.

A recent study by Dawes and colleagues (2007) noted that the concept of *time* was recently added to the PICO structure, and suggested that *results* was another important concept for patient management. They replaced the term *time* with *duration* (D) and the term *intervention* with *exposure* (E) and developed the PECODR structure to include all the elements present in research studies (patient or problem, exposure, comparison, outcome, duration, results). PECODR is intended to facilitate information retrieval by using the elements to match a clinical question with relevant abstracts in a bibliographic database.

Proponents of EBP argue that framing the original information need (or ASK) using the PICO structure assists the clinician in identifying research to resolve that information need. While PICO is assumed to be useful for finding research, it has not been empirically demonstrated to actually represent physicians' information needs or uncertainties (Huang, Lin, and Demner-Fushman 2006). Therefore, it cannot be assumed that answering a question framed using the PICO structure will correspondingly resolve the clinician's original information need. It is therefore important to consider alternatives to the PICO structure that may better represent information needs that arise in practice. This is particularly true for rehabilitation therapists, who cannot be assumed to have the same types of information needs as physicians (for whom the PICO structure was originally designed).

Recently, an alternative question framing structure was put forward in the field of speech-language pathology. This structure, known as PESICO (for person, environments, stakeholders, intervention, comparison, outcome), is argued to be more appropriate for asking questions in that field (Schlosser, Koul, and Costello 2007;Schlosser and O'Neil-Pirozzi 2006). PESICO incorporates all of the PICO elements, and adds *environments* –

the contexts in which the problem occurs, and *stakeholders* – those with an interest in the outcome, including of course, the client/patient. An example of a question framed using the PESICO structure is, "For a 4-year-old child with 4% syllables stuttered (P) in home and school environments over the past year (E) with family and teachers (S), should therapy be recommended (I) to improve fluency (O)?" (Schlosser and O'Neil-Pirozzi 2006, p. 8). Just as with PICO, the *comparison* (C) element may be omitted, as can *environments* (E) and *stakeholders* (S).

In the field of occupational therapy, Bennett and Bennett (2000) also made the argument that in addition to the elements in PICO, the client's context as well as values and preferences should be included when framing questions. This suggestion of a *context* element, meant to represent environmental context and occupational factors, resembles the PESICO element, *environments*. The *client's values and preferences* may also parallel the PESICO element *stakeholders*, which includes the client's perspectives and attitudes. The similarity between Bennett and Bennett's proposed additional elements to those proposed later by Schlosser and colleagues suggests that the PESICO structure may be useful for framing questions in the other rehabilitation professions besides speech-language pathology. A comparison of the various question-framing structures is provided in Table 1.

PICO Richardson et al., 1995)	**PECODR (Dawes et al., 2007)**	**PESICO (Schlosser & O'Neil-Pirozzi, 2006)**	**PICO+ (Bennett & Bennett, 2000)**
Problem	Patient / Population / Problem	Person	Problem
		Environments	Context
		Stakeholders	Patient values and preferences
Intervention	Exposure	Intervention	Intervention
Comparison	Comparison	Comparison	Comparison
Outcome	Outcome	Outcome	Outcome
	Duration		
	Exposure		

TABLE 1: COMPARISON OF EBP QUESTION-FRAMING STRUCTURES

4. Research on the Information Needs of Rehabilitation Therapists and Limitations

Several studies report on the information needs of rehabilitation therapists. PTs reported the need for information on specific disorders (Ashcroft 1998) as well as the usefulness of information on interventions and diagnostic and assessment methods (Ashcroft 1998;Hall 1995). A study which looked at actual search terms entered into the OTseeker database found that most terms fell within the categories of diagnoses and interventions (Bennett, McKenna, Tooth, Hoffmann, McCluskey, and Strong 2006). No comparable data are available for SLPs, although one study noted that SLPs' reported information needs related to patient care in almost a third of all cases (Nail-Chiwetalu and Bernstein Ratner 2007). More than half of these SLPs also considered themselves very successful at finding answers to their questions and applying the information.

Studies on motivations for using the OTseeker database offer conflicting findings. A survey found that 87.4% of users cited clinical information as the reason for accessing the database (McKenna et al. 2005), while a qualitative study employing interviews and conducted in the same year found this to be the least common reason reported (McCluskey et al. 2006).

While some research provides insight into the nature of information needs of rehabilitation therapists, very little data exists on their clinical questions. There is no doubt that questions arise in practice regarding patient care in all three groups of professionals, yet the structure these questions take remains unknown.

Findings from previous studies should be interpreted with caution. In several studies, it is unclear whether researchers distinguish between practitioners and students. For example, studies on OTseeker usage presume that those entering search terms into the database are OTs. However, it is likely that many of these users are in fact students in occupational therapy, and their information-seeking behaviour may differ significantly from that of seasoned practitioners, or those who rely less on the Internet as a source of information. Related to this is the issue of sampling,many studies use convenience samples, or self-selected samples, limiting the generalizability of the findings. One study on PTs has as few as three participants (Hoffman 2005), making it difficult to draw firm conclusions.

Many of the studies use participant self-report as the method of data collection. Studies using self-report have been shown to be unreliable compared to observational data (Covell, Uman, and Manning 1985). Whether using surveys or interviews, this type of data collection relies heavily on memory, which may be faulty. In addition, participants in many studies may have been influenced by a desire to please the researchers in those studies requiring evaluation of library-provided information or database.

Lastly, studies purporting to report on the information needs of rehabilitation therapists do not use an agreed upon definition of needs. Needs are not behaviours and therefore cannot be directly observed. The issue of defining terms is an important one, as the lack of consistent definitions of variables and outcome measures makes comparison across studies difficult. It is recommended that future studies of the information needs of rehabilitation therapists, or any group, be situated within LIS theory in order to ensure that findings are meaningful and extend current knowledge.

5. Research Purpose and Questions

This study links the information needs of rehabilitation therapists to the activity of patient care, or the patient consultation, and is therefore a study of the person-in-context, or of rehabilitation therapists as providers of patient care. Patient care is one of several roles that may be undertaken by rehabilitation therapists in which individualized attention and decision making take place to inform and improve the patient's condition.

The purpose of this research is *to explore rehabilitation therapists' clinical questions in the context of evidence-based patient care.*

The research can be broken down into three research questions:

RQ_1: What characteristics are common among rehabilitation therapists' clinical questions?

RQ_2: How are the elements present in clinical questions similar to, or different from those suggested by the EBP framework?

RQ_3: Why are certain clinical questions pursued, while others are not?

These questions will guide the research study in order to gain insight into the types of clinical questions asked by researchers (RQ_1), the structure these questions take (e.g., similar to or divergent from PICO or PESICO) (RQ_2) and the reasons influencing information seeking (RQ_3).

6. Research Design

The research study will employ a qualitative approach. In the context of patient care, rehabilitation therapists working in chronic stroke care (the study's informants) will record clinical questions as they arise. Clinical questions will be analyzed with respect to question-framing structures proposed by EBP. In addition, narrative interviews will be conducted with each informant to elucidate more details about the clinical questions, and about why they were or were not pursued. Data will be analyzed to uncover themes or patterns associated with clinical question types, structures, and whether or not answers were sought.

Informants in this study will be drawn from the three groups of rehabilitation therapists (OTs, PTs, and SLPs). The study will target rehabilitation therapists working in stroke care. Stroke care was chosen as it is the most commonly treated condition in rehabilitation. Although precise numbers of rehabilitation therapists working with in stroke care are not available, stroke is a leading cause of disability; for example, conservative estimates indicate that each year at least 50,000 Canadians experience stroke, and that 300,000 are currently living with stroke (Heart and Stroke Foundation 2009). The area of stroke rehabilitation is abundant with evidence, yet studies have demonstrated a lack of implementation of this evidence in practice (Pollock, Legg, Langhorne, and Sellars 2000;Sweetland and Craik 2001). Understanding and improving the application of EBP in stroke can therefore potentially have an impact on patient outcomes.

The goal of this study is to recruit between 15 and 18 informants, with equal numbers (five or six) of OTs, PTs, and SLPs, ranging from recent graduates to the very experienced, and from different work settings (for example, from rehabilitation centres with or without academic affiliations, and with or without a library). To this end, purposive, snowball sampling will be employed. This type of sampling consists of "select[ing] information-rich cases strategically and purposefully," and using these cases to identify further cases and willing informants (Patton 2002, p. 243). The researcher will begin by inviting three rehabilitation therapists (one OT, one PT, and one SLP) to be the key informants, and will attempt to identify more information through these and other contacts. Informants will be recruited in the Greater Montreal Area, and must be able to speak and write in English.

The final count of informants will depend on the ongoing concurrent data analysis and the need for more informants, as well as attrition. Data collection will end once data saturation has been reached, that is, once there are no new types or characteristics of clinical questions, and no new reasons for pursuing clinical questions to be found during data analysis for three subsequent informants. Previous qualitative studies on the information behaviour of health professionals have included as few as five (Braun et al. 2007) to as many as 46 (Timpka and Arborelius 1990) informants. Typically, 15 to 20 informants are recommended for qualitative research studies of this nature (Kvale 1996), suggesting that 15 to 18 is a reasonable number for this study's purpose.

Each informant will be provided with a journal to record their clinical questions. Journals, or diaries, are recommended for collecting data on thoughts or actions that may not always be observable (Hyldegård 2006) in the context in which they occur (Bolger, Davis, and Rafaeli 2003). Researchers studying information needs contend that needs themselves are not observable and can only be deduced through behaviour (Forsythe, Buchanan, Osheroff, and Miller 1992;Wilson 1997), such as speaking or writing. An advantage in using journals to record data is the short time delay between an informant's thoughts and recording of these thoughts, which reduces chances of memory loss (Bolger, Davis, and Rafaeli 2003). Journals are therefore considered superior to interviews for information that can be hard to remember (Corti 1993). Zimmerman and Wieder (1977) consider the journal for data gathering to be "an approximation to the method of participant observation" (p. 485), where the observer is the informant. In a study comparing two methods of gathering data on physicians' clinical questions, Ebell and White (2003) remarked that while exit interviews immediately following patient consultations elicited more clinical questions, this method was more resource intensive than the journaling method, and did not generate clinical questions that were qualitatively different.

Journals will employ an event-contingent design, which requires that informants report in the journal every time a specific, defined event occurs (in this case, whenever a clinical question arises). The event-contingent design ensures that data is recorded (ideally) every time the event of interest occurs (Bolger, Davis, and Rafaeli 2003). The journal will include brief instructions and informants will be encouraged to record questions during their workday and any thoughts related to the questions (e.g., likelihood to pursue an answer). Journaling will take place over a two-week period, at the end of which the journals will be returned by mail and the contents transcribed. The transcriptions will be broken down so that each clinical question is represented as a separate *incident* (whether pursued or not). It is expected that the number of clinical questions collected for each informant will vary, with a conservative estimate of one clinical question every two working days. It is therefore reasonable to aim for an average of five clinical questions for each informant, for a total of 75-90 clinical questions.

Following the analysis of the journals, a semi-structured narrative interview will be conducted with each informant. Interviews will be conducted shortly after the *Clinical Question Journals* are transcribed, approximately one week after they are returned. These interviews are expected to last between thirty minutes to one hour, and whenever possible will take place in the informants' offices or close by at a time and place convenient to the informant. At the end of the interview, the informant will be supplied with the *Guide to Research Tools in Rehabilitation* in appreciation for their participation in the study.

A printed list of the clinical questions recorded in the informant's journal will be provided to the informant at the outset of the interview, and will serve as a starting point for the narrative interview. During the course of the interview, the researcher conducting the interviews will attempt to gather more data on some of the clinical questions. An interview schedule will guide the interview and will include questions to generate data more broad in scope than those elicited through the journals. Areas to be explored include background questions on level of education and years of experience; how informants' understand their own clinical questions; how they prioritize questions; which questions are pursued and why? The interview also includes a question linking the data gathering via the journal to real everyday practice to ensure credibility of the data gathering method, thus enhancing the trustworthiness of the study. Qualitative research is emergent, and it is expected that the questions included in the interview schedule will evolve with the analysis of the journals and interview transcripts.

There are two units of analysis in this study: the clinical questions and the rehabilitation therapists. Data will be analyzed at the clinical question level (with each clinical question analyzed, as well as the collection) as well as at the informant level (with each interview transcript analyzed, as well as the collection).

To explore the *characteristics common among rehabilitation therapists' clinical questions* (RQ_1), the set of clinical questions will be analyzed in an attempt to discern types (or categories) that emerge from the entire collection. Interview transcripts will also be analyzed to confirm or refute types of questions, or suggest new ones. Similarities between question content, structure, elements, and possibly phrasing will be considered and it is possible that clinical questions will be able to be categorized into one or more types. These will be compared to physicians' clinical question types proposed by empirical studies and by the EBP framework (e.g., etiology, assessment, treatment, prognosis). Examples of types of clinical questions emerging from studies include undiagnosed, conditional, and compound questions, identified by Ely et al. (2007). Florance (1992) discovered several different possibilities within which questions could be situated: as stated and unstated needs, by certainty level, as having implicit and explicit assumptions, by decision-making processes, and by type of answer required.

To explore *the elements present in clinical questions and their similarity to those suggested by the EBP framework* (RQ_2), clinical questions transcribed from the journals will be analyzed in comparison with the EBP question-framing structures such as PICO (Richardson, Wilson, Nishikawa, and Hayward 1995), PECODR (Dawes et al. 2007) PICO+ (Bennett and Bennett 2000) and PESICO (Schlosser, Koul, and Costello 2007). Each clinical question will be scrutinized by the researcher to identity elements from these question-framing structures. Interview transcripts will be analyzed in conjunction with the clinical questions of each informant to verify the accuracy of the analysis. Although primarily deductive, this analysis will also attempt to inductively reveal other elements that may not be anticipated by these question-framing structures.

To explore *why certain clinical questions pursued, while others are not* (RQ_3), each interview transcript will be analyzed individually, as soon as possible after the interview has taken place, in consultation with the journal of the informant. The interview will first be read by the researcher and main points or emerging themes noted. A second and third reading of the transcript will attempt to uncover more evidence of the themes, and instances that contradict or confirm themes. Once all the interviews have been completed,

and all transcripts analyzed individually, the researcher will bring together themes from the transcripts and note common and unique themes, suggesting reasons that influence or trigger information seeking following the articulation of a clinical question.

It is expected that data gathering will begin in spring 2009 and continue until the fall . Data analysis will be concurrent, and will continue for several months after data gathering is completed. Preliminary findings of the entire study will be presented in 2010.

7. Significance of the Research

The research is expected to make a contribution to information-behaviour theory by elaborating on the Leckie, Pettigrew and Sylvain (1996) model with respect to one group of health professionals. In addition, it creates a link between information-behaviour theory and EBP. These two frameworks can be dovetailed, as they describe and prescribe stages during which individuals need, seek, and use information in specific contexts.

The research has implications for healthcare professionals. To date, there are no studies investigating the clinical questions of rehabilitation therapists. The results of this research will provide insight not only into their clinical questions, but into the reasons for pursuing (or not pursuing) these questions, including, for example, their motives. As a result, healthcare administrators and educators will be better prepared to facilitate EBP, thus potentially resulting in a positive impact on patient care.

To enable rehabilitation therapists to locate evidence for EBP, effective strategies for teaching information skills as well as tools for disseminating research results are required. The results of this study will provide information that can be used in the design of tools by librarians and other information providers in order to teach question formulation and enable access to evidence. It will also satisfy the curiosity of health science librarians who want to understand how to support the work of rehabilitation therapists in their everyday practice.

As EBP is a framework for clinical practice, it is worthwhile to compare the existing question-framing structures to actual clinical questions asked by rehabilitation therapists. The empirical data generated from this study can enhance what is currently known about teaching and implementing EBP. The study will also identify factors which may influence rehabilitation therapists' information behaviour as they attempt to answer clinical questions that arise in the context of patient care.

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