

Examination of students' ability to observe domains of client behaviour in therapeutic
recreation

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ABSTRACT

When observing client behaviours, a therapeutic recreation specialist must have a base understanding of typical client behaviours to provide an informed analysis (Burlingame & Blaschko, 2010). Providing students with the necessary tools for client observation is significant to the success of this process. The purpose of this study was to assess the relationships amongst the TR student demographic characteristics on acquiring the observation competency necessary to conduct a TR assessment. One hundred seventy-two TR college and university students, enrolled in post-secondary undergraduate TR programs across Ontario, observed a client assessment via video, and recorded their observations using the *Tracking Behavioural Assessment (TBA)* (Passmore, 2002). Independent samples t-tests and analysis of variance were calculated for the different student characteristics on the domains of the *TBA*. Significant findings indicated that university students scored more accurately than college students, and advanced students more accurately than novice students, on the emotional and socialization domains.

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CHAPTER I

Introduction

Therapeutic Recreation (TR) is a “holistic process that purposefully uses recreation and experiential interventions to bring about a change—either social, emotional, intellectual, physical, or spiritual— in an effort to maintain and improve health status, functional capacities, and quality of life” (Carter & Van Andel, 2011, p. 9). Therapeutic recreation is an “emerging profession” (Connolly, 1993); a profession that continues to transition and evolve (Carter & Van Andel). This profession consists of a variety of individuals who identify themselves as therapeutic recreation specialists (TRS); these individuals range in educational backgrounds. Specifically, TRS’s are individuals who use “organized activities and experiences for specific, purposeful interventions in peoples’ lives to bring about specific changes in behavio[u]r” (Meyer, 1977, p. 8).

Assessment is the first phase in the TR process, setting the foundation for the following phases: planning, intervention, and evaluation (Austin & Crawford, 2001). The purpose of the assessment phase is to gather, organize, and analyze data in connection with a client’s health status, needs and strengths, in order to develop and implement an effective treatment plan. An important tool that a TRS uses to assess a client is observation, specifically the observation of the functional skills of clients (Burlingame & Blaschko, 2010). As a TRS, in order to optimally contribute to the process of enhancing the quality of life of persons with disabilities, competent client observation is essential to the development of treatment plans to enable this outcome (Austin & Crawford).

After a thorough examination of the literature, there appears to be a gap indicating when TR college and university students gain the observation competency used to

observe client behaviours, a significant tool required to conduct an assessment. This unexplored area may, in part, be influenced by the inconsistencies amongst the TR degree/diploma program education offered at different academic institutions (i.e., universities/colleges) across Canada and the United States.

Due to the changing nature of healthcare, the profession of TR continues to transition (e.g., revisions in standards of practice, codes of ethics, professional certification, and licensure standards), resulting in diversity in the TR curricula (Carter & Van Andel, 2011). Thus, TR education in Canada is evolving, as evident in changes to TR programs, course titles and program content throughout history (Marchildon, 2006). Furthermore, there is currently no standardization amongst entry-level practitioners in Canada. As a result, TR courses and diploma/degree programs offered at colleges and universities within Canada are unique from one institution to the next (Mobily & Ostiguy, 2004). Therefore, when practitioners enter the field, there is a lack of standardization in the education, knowledge and skills that they possess (Canadian Therapeutic Recreation Association, 2005).

To date, there is no such study that has examined the variables influencing the ability of students to observe the domains of client behaviour in the field of TR. As the profession of TR is seeking regulation, the need to verify observation competency in entry-level professionals is imperative to this movement. This knowledge affirms the importance of bridging this gap, a step that could move toward revising and standardizing the TR curricula across colleges and universities, ensuring quality of care of all clients by entry-level TR professionals. Passmore's (2002) *Tracking Behaviour Assessment (TBA)* is an example of a TR assessment tool focused on assessing the functional

domains—emotional functioning, physical functioning, cognitive functioning, leisure life style, and socialization—of older adults diagnosed with psychiatric illness. Within this study, the participants were required to view a client assessment scenario, via video, followed by completing the *TBA*.

Purpose and Research Question

The purpose of this study was to assess the relationships amongst the different TR student demographic characteristics (i.e., gender, college or university program, practical experience, year of study, number of courses completed)—also referred to as ‘student conditions’ throughout paper—on acquiring the observation competency necessary to conduct a TR assessment. This study attempted to answer the following question: What are the observation competency levels amongst current TR students?

Hypotheses

The following hypotheses were tested at the .05 level of significance:

H0₁: There is no significant difference between a student’s gender and ability to score the domains of a TR assessment.

- H1₁: There is a significant difference between a student’s gender and ability to score a client’s emotional functioning.
- H2₁: There is a significant difference between a student’s gender and ability to score a client’s physical functioning.
- H3₁: There is a significant difference between a student’s gender and ability to score a client’s cognitive functioning.
- H4₁: There is a significant difference between a student’s gender and ability to score a client’s leisure life style.

- H5₁: There is a significant difference between a student's gender and ability to score a client's dyadic interaction.
- H6₁: There is a significant difference between a student's gender and ability to score a client's social interest.

H0₂: There is no significant difference between a student's type of institution and ability to score the domains of a TR assessment.

- H1₂: There is a significant difference between a student's type of institution and ability to score a client's emotional functioning.
- H2₂: There is a significant difference between a student's type of institution and ability to score a client's physical functioning.
- H3₂: There is a significant difference between a student's type of institution and ability to score a client's cognitive functioning.
- H4₂: There is a significant difference between a student's type of institution and ability to score a client's leisure life style.
- H5₂: There is a significant difference between a student's type of institution and ability to score a client's dyadic interaction.
- H6₂: There is a significant difference between a student's type of institution and ability to score a client's social interest.

H0₃: There is no significant difference between a student's level of practical experience in TR and ability to score the domains of a TR assessment.

- H1₃: There is a significant difference between a student's level of practical experience in TR and ability to score a client's emotional functioning.

- H2₃: There is a significant difference between a student's level of practical experience in TR and ability to score a client's physical functioning.
- H3₃: There is a significant difference between a student's level of practical experience in TR and ability to score a client's cognitive functioning.
- H4₃: There is a significant difference between a student's level of practical experience in TR and ability to score a client's leisure life style.
- H5₃: There is a significant difference between a student's level of practical experience in TR and ability to score a client's dyadic interaction.
- H6₃: There is a significant difference between a student's level of practical experience in TR and ability to score a client's social interest.

H0₄: There is no significant difference between a student's year of enrollment and ability to score the domains of a TR assessment.

- H1₄: There is a significant difference between a student's year of enrollment and ability to score a client's emotional functioning.
- H2₄: There is a significant difference between a student's year of enrollment and ability to score a client's physical functioning.
- H3₄: There is a significant difference between a student's year of enrollment and ability to score a client's cognitive functioning.
- H4₄: There is a significant difference between a student's year of enrollment and ability to score a client's leisure life style.
- H5₄: There is a significant difference between a student's year of enrollment and ability to score a client's dyadic interaction.

- H6₄: There is a significant difference between a student's year of enrollment and ability to score a client's social interest.

H0₅: There is no significant difference between the number of TR courses a student has completed and ability to score the domains of a TR assessment.

- H1₅: There is a significant difference between the number of TR courses a student has completed and ability to score a client's emotional functioning.
- H2₅: There is a significant difference between the number of TR courses a student has completed and ability to score a client's physical functioning.
- H3₅: There is a significant difference between the number of TR courses a student has completed and ability to score a client's cognitive functioning.
- H4₅: There is a significant difference between the number of TR courses a student has completed and ability to score a client's leisure life style.
- H5₅: There is a significant difference between the number of TR courses a student has completed and ability to score a client's dyadic interaction.
- H6₅: There is a significant difference between the number of TR courses a student has completed and ability to score a client's social interest.

Definition of Terms

For the purpose of this study, the following definitions were used:

TR Observation Competency: The knowledge/ability of individuals to accurately identify and evaluate the emotional, physical, cognitive, social and leisure functioning of clients.

Therapeutic recreation specialist (TRS): A professional working in the field of TR.

Certified therapeutic recreation specialist (CTRS): NCTRC defines a CTRS as “the most professionally advanced recreation therapist in the field, combining education and work

experience to meet the standards of the National Council for Therapeutic Recreation Certification” (2004, What is a CTRS?, ¶ 1). The CTRS designation is “recognized nationally as the benchmark of quality, enhancing the protection of the consumer and the provision of safe and effective recreation therapy services” (NCTRC, About NCTRC Certification, ¶ 1).

Student: An individual enrolled in either a TR college or university program.

Expert: A CTRS with five to ten years of experience working with residents with geropsychiatric conditions in long-term care.

Tracking Behavior Assessment (TBA): An assessment tool developed by Passmore (2002), designed to assess older adults with psychiatric diagnoses, comprised of five domains (i.e., emotional, physical, cognitive functioning, leisure life-style, and socialization) that are potential barriers to recreation and leisure involvement.

Emotional Domain: This domain of the *TBA* is comprised of the following components: frustration tolerance, attitude, affect, and self-esteem (Passmore).

Frustration Tolerance: A component of the *emotional domain*, comprising the *TBA*, which represents “the client’s ability to tolerate participation in various types of tasks” (Passmore, p. 38).

Attitude: A component of the *emotional domain*, comprising the *TBA*, which represents the client’s attitude toward the treatment (Passmore).

Affect: A component of the *emotional domain*, comprising the *TBA*, which represents the specific emotions accompanying the expressed ideas of a client (Passmore).

Self-Esteem: A component of the *emotional domain*, comprising the *TBA*, which represents a client’s degree of trust and respect in one’s self (Passmore).

Physical Domain: This domain of the *TBA* is comprised of the following components: ambulation, balance, coordination (gross motor skills and fine motor skills), and endurance with completion of leisure tasks (Passmore).

Ambulation: A component of the *physical domain*, comprising the *TBA*, which represents a client's gait, impacting his/her ability to move from one point to another in a safe and efficient manner (Passmore).

Balance: A component of the *physical domain*, comprising the *TBA*, which represents a client's ability to maintain his/her balance (Passmore).

Coordination (gross motor and fine motor): A component of the *physical domain*, comprising the *TBA*, which represents the degree to which a client is able to perform a whole movement pattern, using large muscle groups (i.e., gross motor) or small muscle groups (i.e., fine motor) (Passmore).

Endurance with Completion of Leisure Task: A component of the *physical domain*, comprising the *TBA*, which represents a client's ability to uphold continued work toward completing leisure tasks (Passmore).

Cognitive Functioning Domain: This domain of the *TBA* is comprised of the following components: orientation, concentration/attention span, follows direction, decision-making, and memory (Passmore).

Orientation: A component of the *cognitive functioning domain*, comprising the *TBA*, which represents a client's ability to distinguish time (i.e., time of day/week/year), place (i.e., current location), person (i.e., identify of self and others), and/or situation (i.e., why are they in their current situation) (Passmore).

Concentration/attention span: A component of the *cognitive functioning domain*, comprising the *TBA*, which represents the client's ability to focus and maintain one's attention to the task at hand (Passmore).

Follows direction: A component of the *cognitive functioning domain*, comprising the *TBA*, which represents a client's ability to retrieve and follow the directions given (Passmore).

Decision-making: A component of the *cognitive functioning domain*, comprising the *TBA*, which represents the ability of a client to critically assess the possible courses of action and make a sound decision (Passmore).

Memory: A component of the *cognitive functioning domain*, comprising the *TBA*, which represents a client's ability to recall information (Passmore).

Leisure Life-Style: This domain of the *TBA* is comprised of the following components: participation, coping skills and adaptations, and leisure pursuits (Passmore).

Participation: A component of the *leisure life-style domain*, comprising the *TBA*, which represents a client's level of active participation in a behavior based on their motivation to participate (Passmore).

Coping Skills and Adaptations: A component of the *leisure life-style domain*, comprising the *TBA*, which represents a client's ability to cope with a situation (Passmore).

Leisure Pursuits: A component of the *leisure life-style domain*, comprising the *TBA*, which represents the amount of time a client devotes to participating in leisure activities (Passmore).

Socialization: This domain of the *TBA* is comprised of the following components: dyadic interaction, and social interest (Passmore).

Dyadic Interaction: A component of the *socialization domain*, comprising the *TBA*, which represents a client's ability to interact on a one to one basis without experiencing feelings of anxiety or distress (Passmore).

Social Interest: A component of the *socialization domain*, comprising the *TBA*, which represents a client's ability to interact with others at different levels of social contact (i.e., individual level, group level) (Passmore).

Assumptions

The following assumptions were made for the purpose of this study:

1. The participants selected for this study are an accurate representation of the knowledge and skills acquired by TR students in Ontario, as an adequate sample size was collected of TR students from all of the institutions across Ontario offering programs in TR.
2. The *TBA* was completed by each participant as accurately as possible, relevant to individual knowledge, skills, and experience.
3. The participant results derived from the *TBA* are representative of all TR assessment instruments for all client populations, as this assessment tool assesses the five main functional domains observed in clients within the field of TR.
4. The video assessment viewed was an accurate representation of a client assessment in TR, as the practitioner in the recording was a CTRS, and the client was portrayed by a "paid performer trained in the specific task of imitating various diagnoses of clients within the health care environment for instructional purposes" (Passmore, 2002, p. 68). Furthermore, the client being

portrayed in the video was an older adult with mental illness, which aligned with the target population that the *TBA* was developed to measure. Therefore, population-specific reliability was considered for the client being observed (Passmore).

5. The *TBA* scores recorded by the experts are a representation of the correct assessment scores for each domain, as these experts were CTRS's with five to ten years of previous experience with the target population, who were currently working in "a facility which delivers psychiatric services to the geriatric population" (Passmore, 2002, p. 73).

Delimitations

This study has the following delimitations:

1. Students selected for this study were enrolled in colleges or universities in Ontario that each offer class work in TR as part of the curriculum.
2. Students selected to participate in this study were not required to have had previous knowledge, skills or experience with working/volunteering with geriatric clients or taking geriatric specialization courses.

CHAPTER II

Literature Review

Introduction

This chapter reports a review of literature relevant to the nature of this study. The topics considered were history of TR, assessment in the field of TR, teaching of assessment in TR, TR college/university curricula, use of video as a tool for teaching/evaluation of medial/allied health professional skills, and use of secondary data.

There is a gap in the TR literature indicating when college and university students gain the observation competency, used for observing client behaviours, required to complete the task of assessment. As a result, this study was designed and conducted to investigate the TR student demographics characteristics (i.e., gender, college or university program, practical experience, year of study, number of courses completed) influencing one's ability to acquire the observation competency necessary to conduct a TR assessment.

History of TR

History of TR in United States

In the early 1900s, recreation was viewed as a “basic institutional service that improved morale and enhanced the treatment of those with disabilities, especially in long-term care facilities” (Carter & Van Andel, 2011, p. 35). This notion of recreation gave rise to the *National Recreation Association*, in turn, setting the stage for the development of the field of TR in the United States. During the early developmental stages of the TR profession, the professional organizations that formed were unable to come to a consensus on the direction of this field. Nonetheless, the profession had been identified as

a legitimate health-care service, leading universities to offer TR courses at the undergraduate and graduate levels, but remaining far from reaching professional status designation (Carter & Van Andel).

In 1966, a unified professional association was established—the *National Therapeutic Recreation Society (NTRS)*—in addition to: standards of practice, an updated credentialing process, and licensure at the state level. Despite the emergence of the profession, there were many weaknesses within, including an undefined professional philosophy of service, a credentialing process that was voluntary and lacked uniformity, fragmented research in the field, little justification for the significance of TR to client welfare, and “the quality of academic training had yet to meet the test of job accountability” (Carter & Van Andel, 2011, p. 47).

In 1984 the *American Therapeutic Recreation Association (ATRA)* was established, strengthening the professions position in health-care. Throughout the 1980’s, the TR profession transitioned toward developing its identity as a legitimate health-care profession, compounded by a flourishing body of research and the provision of quality services, although facing continued challenges into the twenty-first century. In 2000, the *Alliance for Therapeutic Recreation* formed a work group to discuss issues, and resolve challenges, continuously faced by the TR curricula; although, consensus on individual/program accountability measures were not established (Carter & Van Andel, 2011). At the end of the first decade of the twenty-first century, professional unification and curriculum advancement were addressed once again, and *ATRA* assumed the role as the sole professional organization serving the profession. For over 40 years, the field of TR has developed into a recognized profession in the United States, with an existing

national certification program offered through the *National Council for Therapeutic Recreation Certification (NCTRC)* since the early 1990's; but due to the changing nature of healthcare, the profession of TR continues to transition (e.g., revisions in standards of practice, codes of ethics, professional certification, and licensure standards), resulting in diversity in the TR curricula (Carter & Van Andel).

History of TR in Canada

Therapeutic recreation education in Canada is evolving, as evident in changes to TR programs, course titles and program content throughout history (Marchildon, 2006). Since the field of TR is seeking regulation, the *Canadian Therapeutic Recreation Association (CTRA)*, formed in 1997, is working toward establishing national standards in entry-level practice in the field of TR, as there is currently no standardization amongst entry-level practitioners in Canada. Therefore, when practitioners enter the field, there is a lack of standardization in the education, knowledge and skills that they possess (Canadian Therapeutic Recreation Association, 2005). When entering the field, a TRS holds a certificate, diploma or degree in a variety of fields, with the completion of at least one TR course credit within that certificate, diploma or degree program. Furthermore, TR courses and diploma/degree programs offered at colleges and universities within Canada are unique from one institution to the next (Mobily & Ostiguy, 2004). As these programs are unique from one to the next, there is a current need to further dissect the characteristics of TR programs and the students enrolled in them, to determine the factors influencing one's ability to acquire the observation competency necessary to perform assessment.

Therapeutic Recreation Ontario's (TRO) is working toward a certification program at the provincial level. There is currently an interim registration process that has been adopted in order to permit individuals who are registered as members of *TRO* to be eligible to write the certification examination when it is first offered. In order to meet the criteria to write the examination, one must accrue a minimum number of points within the following categories: experience, formal education, professional affiliations and professional contributions (Therapeutic Recreation Ontario, 2009). According to Marchildon (2006), "one of the most disconcerting elements of the TRO Registration Process and eventual certification is that students are not required to complete a single course in TR! An applicant with a Bachelor's Degree in Recreation and Leisure but without a single course in TR can apply to be a registered TR professional" (p. 29). Marchildon's study suggests that there should be a minimum number of TR courses completed as part of this process to determine if applicants possess the knowledge base to receive professional status. Thus, Marchildon states that *NCTRC* has a better representation of a certification model than *TRO*, as the educational requirements of *NCTRC* request one to complete a minimum number of hours, in a minimum number of courses, with TR specific content (i.e., assessment, TR process, and advancement of the profession) (NCTRC, 2011). Furthermore, in May 2009, CTRA collaborated with NCTRC to expand the CTRS credential throughout Canada (CTRA/ACLT, 2013; NCTRC, 2013, May/June).

Assessment in the Field of Therapeutic Recreation

Assessment is the "process of estimating or measuring the level of ability, characteristics, or personal values of the client" (Burlingame & Blaschko, 2010, p. 9).

Within the field of TR, assessment is the first phase comprising the TR process, setting the foundation for the following phases to unfold, in succession: planning, intervention, and evaluation. More specifically, the significance of the assessment phase is to gather, organize, and analyze valid data regarding a client's health status, needs, and strengths, in order to develop and implement an effective treatment plan (Austin & Crawford, 2001).

Within the assessment phase, creating and maintaining a safe and therapeutic environment (NCTRC, 2013), while establishing rapport with the client, will aid in its success (Austin & Crawford, 2001; NCTRC). A TRS who is competent in using his/her interpersonal skills will optimize this helping relationship (Munson, Zoerink, & Stadulis, 1986). According to Okun & Kantrowitz (2008), "the development of a warm, trustful relationship between the helper [i.e., TRS] and the helpee [i.e., client] underlies any strategy or approach to the helping process and therefore is a basic condition for the success of any helping process" (p. 20). This bond shared between the TRS and the client involves trust, positive emotional feelings, and mutual respect (Austin & Crawford). It is optimal for the client to have a relationship with the TRS, one in which "the client associates positive outcomes as he or she experiences mastery, control, personal satisfaction, feelings of effectiveness, and confidence" (Austin & Crawford, p. 46). The development of rapport is important in creating an environment in which the client feels more at ease when sharing his/her personal information with the TRS (Austin & Crawford). More specifically, the client begins to clarify his or her "needs and expectations of the helping relationship to facilitate self-exploration, self-understanding, and choices of action" (Okun & Kantrowitz, p. 20). In order to facilitate this process, attending and responding skills are important interpersonal skills used by the TRS to

guide the face-to-face interaction with clients (Munson et al., 1986). Although, when a TRS develops a strong rapport with the client, it does not imply or guarantee that the client's verbalizations will coincide with his/her behavioural expressions (Austin & Crawford).

Observing Behaviors versus Behavioural Observation

Observation is one of the tools a TRS uses while assessing a client. Observation is the “primary technique” a TRS will use when conducting an assessment that measures a client's functional skills (Burlingame & Blaschko, 2010, p. 125). According to Reber (1995), behaviour is “a generic term covering acts, activities, responses, reactions, movements, processes, operations, etc., in short, any measurable response of an organism” (p. 86). According to Burlingame and Blaschko, one of the critical roles of a TRS, is the ability to distinguish between behaviours: “the more distinct and descriptive the method used to describe behavior, the easier it is for other members of the treatment team to understand what was observed” (p. 119). When observing client behaviours, a therapist must be able to identify and focus on the behaviours that should be observed (i.e., relevant behaviours) by examining the perceptual and conceptual data, and filter out those behaviours that are irrelevant to this process (Burlingame & Blaschko; Smith & Tiffany, 1983). It is important to note that, “observation cannot measure constructs, or internal states, such as motivation, depression, or intelligence. Rather, observation focuses on documenting behavior[u]r patterns” (Robertson & Long, 2008, p. 84).

Observing a client's behaviour is an important tool to have as a TRS, as it will help to determine whether or not a client's verbalizations coincide with his/her behavioural expressions. During client observation, criterion-referenced forms, checklists

related to task analysis, and/or the TRS's personal knowledge on behaviour, are used to guide this process. As a TRS, it is important to understand the different categories/criteria devising the specific tool (e.g., form, checklist) being used, in addition to utilizing the correct verbs and adverbs to accurately describe client behaviours (Burlingame & Blaschko, 2010).

TRS's observe clients using one of two ways: (a) Observing behaviours, or (b) behavioural observation. *Observing behaviours* is a method of client observation based upon general guidelines and techniques. The TRS usually plays the role of both the facilitator and the observer (Burlingame & Blaschko, 2010). The TRS makes note of the client behaviours that are both within, and outside, the context/parameters being observed. The TRS observes the client with respect to the documentation requirements of the standardized/non-standardized testing tool. This method of client observation can be utilized during client interviews, therapy sessions, and informal interactions with clients (Burlingame & Blaschko).

Behavioural observation is a method ingrained in a more formal and structured assessment of client behaviour, as it follows protocols with explicit rules (Burlingame & Blaschko, 2010). The role of both the facilitator and the observer are played by two different people; one individual facilitates the activity, while the other gathers the data. During this process, only the client behaviours that have been predetermined for data collection are observed, identified and documented, according to the protocol of the specific recording form being used. The recording forms for behavioural observation must have established reliability and validity (Burlingame & Blaschko). The formal protocols for behavioural observation are comprised of very detailed instructions, unlike

the guidelines for observing behaviours (Burlingame & Blaschko). For the purpose of this study, *observing behaviours* was the method of client observation utilized by the participants when completing the *TBA* during the data collection process.

Observing Behaviours

Prior to observing a client to report on his/her behaviour in a standardized assessment tool, it is essential for a TRS to review and have an understanding of the categories and criteria devising the specific tool being utilized (Burlingame & Blaschko, 2010). In addition, the key to successfully observing a client using a specific assessment tool is “to see and...listen well...accompanied by the ability to sort through the mass of perceptual and conceptual data that may be presented, and to focus on what is relevant to the process” (Smith & Tiffany, 1983, p. 144).

When observing client behaviours, a TRS must have a base knowledge and understanding of the typical behaviours and skills of individuals (i.e., diagnostic groups/developmental levels), as well as variations from these typical behaviours, in order to provide an informed analysis following client observation. In addition, it is necessary for a TRS to possess an extensive vocabulary, as it will aid in describing the observed client’s behaviours; as people communicate through both verbal expressions and body language, it is very important to understand the appropriate vocabulary to use when describing the way in which a client is expressing him- or herself (Burlingame & Blaschko, 2010).

As mentioned, since individuals communicate through verbal expressions and body language, both are important for the TRS to note during the client observation period. When selecting the appropriate vocabulary to describe the way in which a client

communicates, *verbal expressions* refer to more than the meanings of the words themselves, but also: (a) the ability of the client to articulate these words and meanings (e.g., slurred speech, stuttering over words); (b) the voice quality of the client (e.g., soft, monotone); (c) the phraseology used by the client (e.g., slang words, clichés); (d) the use of swearing, racial comments, or religious based expressions; and (e) the amount, flow, and rate of verbal expression (e.g., non-verbal, pressured/frantic speech) (Burlingame & Blaschko, 2010). Also significant to the observation process is a TRS's selection of appropriate vocabulary to describe the *body language* of a client, which focuses on the behaviours related to the movement and activity of the client (e.g., hand movements, physical agitation) (Burlingame & Blaschko).

Since the verbal expressions of clients are comprised of the apparent and underlying cognitive and affective information, and the body language accompanies these verbal expressions, the TRS is required to recognize any inconsistencies between the verbal expression and body language of clients, in order to accurately assess a client (Burlingame & Blaschko, 2010; Okun & Kantrowitz).

Cultural bias. A TRS's cultural bias may influence the assessment process, in the following two ways: (a) in the data collection process, and (b) in the interpretation of raw data (Burlingame & Blaschko, 2010). In reference to the *data collection process*, when the TRS collects the data using a specific testing tool to evaluate a client's behaviours, the behaviours to be observed using this tool may not be culturally sensitive to the individual client (Burlingame & Blaschko). Culturally insensitive testing tools may create negative or emotional reactions in clients, therefore affecting the accuracy of the resulting data (Stumbo & Peterson, 2004). In reference to the *interpretation of raw data*, if there

appears to be bias in the data collection process, this will directly impose bias in the analysis and interpretation of data, thus producing error in the assessment results (Burlingame & Blaschko; Stumbo & Peterson). Therefore, without practicing cultural sensitivity, a similar chain of events may lead to the development of a compromised client treatment plan, rather than providing optimal client care (Burlingame & Blaschko).

Job Tasks of the CTRS

As mentioned, assessment is a foundational element within TR practice. The guidelines of NCTRC (2013, p. 3) state that the current job tasks of CTRS's, in relation to TR assessment, are to:

1. "Request and secure referrals from professionals or other sources;"
2. "Obtain and review pertinent information about person served (e.g., records or charts, staff, support system);"
3. "Select and/or develop assessment methods based on needs of the person served and setting (e.g., interview, observation, task performance, established instruments);"
4. "Conduct assessments using selected methods to determine physical, social, affective, cognitive, leisure, and/or lifestyle functioning;"
5. "Analyze and interpret results from assessments;" and
6. "Integrate, record, and disseminate results gathered to appropriated individuals (e.g., person served, treatment team)"

As the above assessment guidelines illustrated, selecting and/or developing a relevant assessment tool to accurately and effectively assess a client is necessary for the different phases of the TR process to unfold. An accurate representation of each client is

significant in the planning, implementing, and evaluating of outcomes, of interventions and/or programs. In other words, the accurate observation of a client's behaviours is an important tool of the assessment process to better ensure the highest quality of care for persons with disabilities.

CERT—Psych/R

When observing client behaviours, one of the critical roles of a TRS is to possess the ability to distinguish between the behaviours of a client, a skill significant to the success of an assessment. The *Comprehensive Evaluation in Recreation Therapy—Psych/Behavioral, Revised (CERT—Psych/R)*, developed by Parker, Ellison, Kirby, and Short, is one of the oldest functionally based standardized assessment tools in the field, developed for use with youth and adult clients, in short-term, acute care psychiatric settings. The purpose of this assessment tool is to “identify, define, and evaluate behavior[s] relevant to a person's ability to successfully integrate into society using his/her social interaction skills” (Burlingame & Blaschko, 2010, p. 328).

The *CERT—Psych/R* was designed to provide TRS's with an objective testing tool to evaluate clients on 25 social skills behaviours, divided into three performance areas: General, Individual Performance, and Group Performance. After observing the client in a group activity, the TRS would evaluate the client using this tool. The *CERT—Psych/R* contains high construct validity, as social performance is measured through observation, instead of measuring the client's perception of his/her social performance (Burlingame & Blaschko, 2010). This tool can be used up to ten times per individual client. This specific sampling technique is referred to as *focal sampling*, when a TRS “observes one client (or a small number of clients) and records information on a variety

of behavior[u]rs during a predetermined period of time” (Burlingame & Blaschko, p. 127). In addition, the *CERT—Psych/R* is a tool commonly used for the initial evaluation of clients, and for client progress notes (i.e., documenting changes in the social interaction skills of a client over time) (Burlingame & Blaschko).

The *CERT—Psych/R* is significant to the study guiding this thesis paper, as there are parallels to the *TBA* (i.e., the assessment tool utilized for data collection in this study). Both *CERT—Psych/R* and the *TBA* use focal sampling to assess clients by combining observation with a standardized assessment tool. Through observing client behaviours and recording these observations on a standardized assessment tool, the skills impacting a client’s ability to function optimally are identified, defined and evaluated. Specifically, the *TBA*, like the *CERT—Psych/R*, observes the functional behaviours of a client with mental illness in a leisure-related setting through client observation. Furthermore, the *TBA* also evaluates a client’s social skills, similar to the *CERT—Psych/R*, in addition to evaluating a client’s emotional, physical, cognitive functioning, and leisure life-style skills, unlike the *CERT—Psych/R*. Although, after careful review of the *CERT—Psych/R*, it appears to touch upon some of the other functional domains outside of the parameters of the socialization domain, that were also assessed in the *TBA*.

Domains of Functional Skills

When assessing a client, it is important for the TRS to have an understanding of the different domains of function comprising the specific assessment tool being used. Functional skills are observable and measurable abilities, or tasks, demonstrated by the client. Functional skills are usually broken down into the following four observable and measurable domains: physical, cognitive, social, and emotional/psychological

(Burlingame & Blaschko, 2010). These four domains are historically accepted by different health care disciplines, therefore being deemed the most common domains of function. As TRS's are members of interdisciplinary treatment teams, it is important to use similar terminology to other treatment team members to optimize the quality of client care. Some professionals will incorporate additional domains, or combine domains, of function to enhance the assessment process. An example of an additional domain, often included by TRS's, would be a leisure-related domain (Burlingame & Blaschko).

As previously discussed, functional skills are broken down into different observable and measurable domains. When assessing the *physical* domain, TRS's provide a gross identification of a client's physical skills and attributes, in order to provide professional feedback as to whether or not the client is within normal range of performance. Within the physical domain, some of the more generalized functional skills to be assessed by the TRS include: type of grasp used, gait patterns, coordination, range of motion, and endurance/activity intolerance (Burlingame & Blaschko, 2010). During an assessment of the *cognitive* domain, the TRS observes the following subcategories to develop a more comprehensive knowledge of the client's cognitive skills: abstraction, attention/concentration, awareness, generalization, initiation, memory, mental flexibility, organization, orientation, planning, problem solving, and transfer (Burlingame & Blaschko). When assessing the *social* domain, TRS's focus attention on client social roles, social patterns, social skills, and social supports (Burlingame & Blaschko).

Assessment of the *emotional/psychological* domain (i.e., affective domain) requires TRS's to focus on the feelings, moods, and other affective areas of clients, specifically frustration, grief, anger, anxiety, calm, depression, humour, joy, mania, and

panic (Burlingame & Blaschko, 2010). Although the TRS has the ability to describe a client's physical attributes of affect, assigning meaning to these attributes is very subjective. With this being said, it is very important for the TRS to record these attributes (i.e., observe and measure client emotional reactions, responses and resources), as they are necessary in determining the most influential treatment plan (Burlingame & Blaschko). This domain provides insight into the person, which in turn aids in the development of a treatment plan specifically designed for the individual. When a TRS measures a client's emotional domain, it is a two-part assessment: (a) the therapist begins by asking the client to describe his/her emotions, feelings, or mood, followed by (b) the therapist observing the client's behaviors and body movements. During this process, both parts of this assessment are compared to one another to determine whether or not the client's emotions, and observed actions, compliment, or contradict, one another (Burlingame & Blaschko; Okun & Kantrowitz, 2008). In addition, it is important to be aware that clients may not be reliable in giving an accurate description of their feelings, due to the following: cognitive impairments, purposeful deceit, cultural constraints, or discomfort with staff members (Burlingame & Blaschko). Lastly, the TRS will want to observe and note the client's patterns of affect, including changes in his/her affect that do not appear consistent with situations, and the act of under- or over-responding to situations (Burlingame & Blaschko).

The final domain comprising the functional skills to be evaluated is the *leisure* domain. A leisure lifestyle implies that one has "sufficient skills, knowledges, attitudes, and abilities to participate successfully in and be satisfied with leisure and recreation experiences that are incorporated into his or her individual life pattern" (Stumbo &

Peterson, 2004, p. 18). It is important to note that the leisure domain is not constructed in the same manner as the above four domains, as the subcategories comprising the leisure domain require skills from the above four domains (i.e., physical domain, cognitive domain, social domain, emotional domain) in order to evaluate this domain (Burlingame & Blaschko, 2010). Therefore, when assessing this domain, the goal of the TRS is to assist clients in reducing, eliminating, or overcoming leisure related barriers, by also addressing subcomponents of the above four domains, that will ultimately optimize the clients participation in a leisure lifestyle (Stumbo & Peterson). In addition, the leisure domain is difficult to divide into basic subcategories, as the field of TR has not yet developed a unified definition of leisure, making it difficult to establish set subcategories to comprise this domain (Burlingame & Blaschko).

Not only are the above five domains deemed the common domains of function, but they are the domains of function comprising the assessment tool used in the current study, the *TBA*. In conclusion, when assessing the different subcategories during client observation of each of these domains, a TRS should reflect on the following: “How functional is this behavior given the client’s environment and situation?” (Burlingame & Blaschko, 2010, p. 313).

Teaching of Assessment in Therapeutic Recreation

The skill of accurately assessing a client carries a significant weight, as assessment is at the root of the TR process, and from this solid grounding, the proceeding phases of the TR process will develop. As a result, providing both the TR students and practitioners with the necessary tools to optimize understanding, knowledge and skills of assessment, are deemed crucial to the TR process.

Currently there is literature available to students and professionals in the field to serve as educational references about the provision of practical application/guidelines for assessing clients. Horvat and Kalakian's (1996) *Assessment in Adapted Physical Education and Therapeutic Recreation: Second Edition*, aids in the learning, and refining of understanding, of TR students and practitioners in the physical domain of assessment for persons with disabilities (Broach, 1998). This book provides specific examples of assessment instruments to be used for persons with disabilities, with emphasis on working with children in the community or in school settings. Specifically, Horvat and Michael indicate a method to compliment this process of learning, by way of networking and sharing expertise with professionals in the field, to promote and broaden the knowledge of services (Broach). Similarly, Burlingame and Blaschko's (2010) *Assessment Tools for Recreational Therapy and Related Fields: Fourth Edition*, was written to educate and guide both students pursuing TR, and current TRS's/CTRS's, with additional knowledge related to the assessment process, assessment standards, and assessment resources.

In addition, practical work within the field will provide future TR practitioners with enhanced understanding, knowledge and skills of client assessment. Certain institutions across Canada and the United States offer TR programs that qualify a student to be eligible to complete a TR internship overseen by a practitioner (i.e., site supervisor) at the conclusion of their degree. The purpose of the internship is to provide students with hands-on experience within the field prior to gaining employment, in order to optimize service delivery. Under specific circumstances, this field experience affords students the opportunity to apply for certification if educational and experiential requirements are met,

enabling them to work in the field as certified therapeutic recreation specialists (CTRS). Specifically, an individual is eligible for certification following the completion of their degree, in addition to the completion of an internship under the supervision of a site supervisor who is confirmed as a certified therapeutic recreation specialist (CTRS). Having the designation of CTRS is desirable as it grants greater protection of clients.

Kunstler's study (1980) looked at the competencies needed by TR field experience site supervisors to successfully supervise students in field placements, in order to better prepare them for future practice within the field of TR. The participants in this study consisted of seventy-nine site supervisors in the field of TR, working at field placement sites utilized by TR students from Indiana University. The participants in this study met the following, minimum, criteria: (a) possessed a master's degree in recreation (or its equivalent), (b) in his/her current position for at least one year, and (c) the recreation program at his/her current agency had been running for at least one year.

According to Kunstler (1980), 69 TRS competencies, under the following nine areas, were considered significant to the success of TRS's when supervising students: interpersonal relationship, contributions to student's growth, student as professional staff member, evaluation of student, preparing for the student's arrival, commitment to supervision, professional role model, teaching skills, and knowledge of therapeutic recreation. These areas were developed for the purpose of the study, taken from interviews with educators, practitioners and students, and from relevant literature. Specifically, the following competencies were ranked by supervisors (on a five-point scale), as having both, a highly ranked *need* to optimize the success of the field experience for students, and a highly *perceived proficiency* in supervisors to fulfill these

competencies: (a) “recognizing the educational value of fieldwork for the student” (need: 4.54; proficiency: 4.52), (b) “analyze student’s ability to employ the therapeutic recreation process: *assessment techniques* [italics added], *program planning* [italics added], *formulating individual and program goals and objectives* [italics added], charting, activity analyses and evaluations, and client and program evaluations” (need: 4.53; proficiency: 4.13), and (c) “recognizing need to involve students in evaluation of their strengths and weaknesses” (need: 4.47; proficiency: 4.41) (p. 87). These competencies will impact the value of the field experience, as working under a field site supervisor to acquire practical experience will likely have a significant impact (positive or negative) on the learning experience for students preparing for a future as a TRS.

Kunstler (1980) asked participants to indicate where they developed proficiency in these competencies, and fifty percent of the participants chose “on the job” for all but one competency area, interpersonal relationship (i.e., supervisor maintains a relationship with student), further illustrating the value of practical experience in the profession. In addition, the participants indicated that two of the highest ranked competency areas desired for further training were: (a) teaching skills, and (b) knowledge of TR. This perceived need for further training in these competencies may have a more negative—than positive—influence on the quality of knowledge gained by students during the field experience.

In a related study, Munson et al. (1986) supports the value and importance of guiding TR students in the learning process to optimize skill proficiency within the field. In this study, students, untrained in interpersonal skills—important for establishing effective helping relationships—were assigned to one of the following groups:

microskills (MS), mental practice (MP), or wait-control (WC). *Microskills* referred to the development of interpersonal skills through performance accomplishments (i.e., role playing), and *mental practice* referred to vicarious experience (i.e., covert modeling or seeing others perform) (Munson et al.). The MS and MP groups focused on developing perceived self-efficacy and competence in attending and responding skills. The study results, although only focusing on short-term results, indicated that microskills and mental practice training are both highly effective in developing self-efficacy and competence in interpersonal skills of TR students. Both groups were equally as effective as one another, and superior to the WC group, in perceiving themselves capable of performing more skills with greater certainty; both groups were equally as effective as one another, and superior to the WC group, on attending and responding skills competence (Munson et al.). The short-term results concluded that the two training programs (i.e., MS and MP groups) were both effective in teaching interpersonal skills to TR students (Munson et al.). Although this study only looked at the development of interpersonal skills (a component of the TR assessment process), the MS and MP training programs both proved to be effective, efficient and beneficial methods for teaching practical skills to TR students.

Therapeutic Recreation College/University Curricula

In recent years, health care has evolved by highlighting the importance of both health and wellness, in addition to the historical emphasis on achieving functional health, therefore placing greater emphasis on health promotion, community-based wellness initiatives, and disease prevention (e.g., prevention of secondary conditions of individuals with disabilities) (Coyle, Boyd, Kinney & Shank, 1998). Through this shift in health care,

the disability community has influenced this approach to service delivery by advocating for persons with disabilities to become informed consumers of the services they receive, by being directly involved in the development of their personal wellness goals, and working toward these goals, in partnership with health care professionals (Coyle et al., 1998). Since TR is a profession embedded in the involvement of persons with disabilities in leisure to enhance health and quality of life, in addition to being ingrained in self-efficacy and locus of control, the role of the TRS appears to be the desired fit for this trend in health care. As a result of this paradigm shift, health care settings have evolved by placing greater importance on the role of the TRS. Attention to educational preparation, and professional preparation and practice, are of significant value to the success of TRS's when first entering into practice (i.e., entry-level professionals) (Coyle et al.). Specifically, the relationships between the TR curricula (e.g., curricular offerings) and practice, and professional preparation (e.g., knowledge and skills) and professionalization processes, are both considered relevant in preparing entry-level professionals (Stumbo, Carter, & Kim, 2004a). According to Stumbo (2001), there is little agreement on the curriculum design and content in the field of TR, making it difficult to standardize preparedness of entry-level practitioners.

Stumbo, Carter, and Kim (2004a, 2004b) used a survey instrument in 2003 to conduct a study that re-examined, updated and compared more current data, to a similar study conducted in 1996 (Stumbo & Carter, 1999a, 1999b), related to the TR curricula across North America. Both studies investigated TR accreditation, curriculum, internship characteristics, university logistics, faculty, students, graduation and placement rates. In 2003, this survey instrument was distributed to the Therapeutic Recreation Coordinator at

each of the 144 institutions (i.e., universities/colleges) offering 4-year therapeutic recreation curricula, with a final sample of 65 institutions used in this study (Stumbo et al., 2004a, 2004b).

An area of interest found within this study involved the amount of hours required in TR related courses, at the different institutions, to complete the TR degree programs. After reviewing the data, course hour requirements fluctuated greatly, indicating inconsistencies between programs amongst institutions (2003: n=56, range=9 to 60 hours, mean=23.8 hours, mode=12 hours; 1996: n=102, range=9 to 44 hours, mean=18.7 hours, mode=9 hours). In addition, the course titles, and the number of courses, offered as required and elective university and college undergraduate TR courses lacked uniformity and were unparalleled (Stumbo et al., 2004a). Where these institutions did align was in the average number of weeks required for undergraduate internships, being 13.5 weeks, and 96.8 % of these institutions required the agency internship supervisors to be NCTRC certified (Stumbo et al., 2004a).

Based on the results of this study, it is evident that there is diversity amongst the TR curricula. Seeing that none of the 65 institutions were identical in their curriculum—conversely showing great variations amongst institutions—the TR curricula lacks uniformity, meaning that graduates likely do not have standardization of “exit skills.” Although the TR curricula is inconsistent across the different programs, it was reported by faculty members that the majority of their TR majors graduated, gained employment in their field, and received NCTRC certification (Stumbo et al., 2004b). Even though these individuals appeared to experience success following graduation, the proven

inconsistencies across their education, alludes to the diversity of their skills when entering into practice.

Currently, there is not a minimum educational standard required to practice TR in Canada, resulting in a diversity of TR programs across the country (Marchildon, 2006). Marchildon explored the state of TR education in Canada, investigating eight universities and 11 colleges with programs leading to a diploma, certificate or degree, offering at least one course in TR. Based on the results of this study, Canadian TR students are not equally prepared to practice in the field, as the Canadian colleges and universities educate students using differing methods. Students at these schools are required to complete anywhere between 1 and 11 TR courses to graduate, depending on the school/program, and 13 (65%) of these programs require students to complete fieldwork placements or internships, not necessarily in TR (Marchildon). Of these 13 programs, internships ranged from 245 to 640 hours (mean=442), ranging from 9 to 18 weeks in duration. Only one school required the internship to be supervised by a CTRS, whereas the remaining schools, also meeting NCTRC requirements, advised students to complete the internship under CTRS supervision if they desired certification. Currently, there is no guarantee that students graduating from different schools/programs across Canada have equivalent knowledge to one another (Marchildon).

As professional standardization is important in maximizing knowledge, professional integrity, and protection of clients amongst all entry-level TRS's, curricular standardization is an important step in that direction. As evidenced in the above section, although TRS's from varying programs managed to gain employment in the field, these practitioners lack unification of knowledge and skills when first entering into the field.

Revising the TR curriculum, so as to standardize it across North America, will ensure that all students are equally prepared for professional practice, in turn ensuring greater protection of clients by entry-level practitioners.

Use of Video as a Tool for Teaching/Evaluation of Medial/Allied Health Professional Skills

In reviewing the literature, video has proven to be an effective educational tool for the teaching and evaluation of health professional skills, particularly due to costs, and time and limitations related to classroom-based instruction and observation of real patient scenarios. This particular medium has been successfully utilized across different health professions, in a variety of forms.

Duque, Fung, Mallet, Posel, and Fleiszer (2008) conducted a study investigating the use of instructional video gaming to teach medical students how to perform an effective home visit for geriatric patients. The video game, *Riskdom-Geriatrics*, was developed as a fun and educational way to assess the risk factors for falls and harmful elements through viewing a simulated version of a patient's house. Through this experience, the study results indicated that students had a significant improvement in their knowledge following the video game, and a positive change in their video game scores from their first attempt to their second attempt, which indicated an increase in their level of learning and engagement (Duque et al., 2008). Prior to video game exposure, over half of the participants (58%) indicated that they had not received enough training in performing home visits. After exposure to the video game, eighty-five percent of the students considered this a positive experience; seventy-eight percent of students indicated that they would recommend this method of learning, referred to as "edutainment" (i.e.,

learning while having fun) when exposure to real-life experiences were not possible; and seventy-seven percent of students recognized that this video game helped them to improve their knowledge and confidence toward performing home visits, without compromising the seriousness of medical learning. This method created an opportunity for students to creatively think and integrate knowledge (i.e., virtual home visit), and contextually learn (i.e., simulated environment), in a fun and relaxing environment without the pressures of being directly evaluated (Duque et al.). Based on their findings, Duque et al. believed that edutainment could also be used for the learning of students in other health professions.

Burnard (1991) outlined a structure for enhancing interpersonal skill development through use of video: a student-centred, facilitative approach to teaching and learning. Burnard's approach enabled nursing students to utilize video as a method for reflecting on the development of interpersonal skills; reflection on practice is considered central to interpersonal skills training. This process began with discussion, between facilitators and students, around the theory and practice of interpersonal skills, followed by rehearsal/role play of interpersonal skills in pairs. In pairs, students filmed themselves in the interactive or role-play scenarios, followed by a short reflective period between filming sessions. Next, students viewed this video footage, assessed, and reflected on, their personal footage and the footage of the other students (Burnard). During the assessment and reflection phase, students wrote notes on the viewed footage, using an assessment and reflection form to aid in this process. Lastly, students provided and accepted feedback to/from peers, and engaged in further practice of interpersonal skills with or without video (Burnard). The purpose of reflection was for students "to become both critical of

one's own performance and to be able to incorporate both the theory and practice of interpersonal skills training into one's own repertoire of actions and skills through personal assessment" (Burnard, p. 145). In contrast to the method used by Duque et al. (2008), Burnard believed his method to be better suited for the learning of extroverted students, as these particular students are better suited for higher-pressured environments where they receive feedback from peers.

During the past forty years, visual recordings of experts within the counseling field have been used in counselor training programs to demonstrate the use of theoretical perspectives, and intervention techniques and skills, used during practice (Keats, 2008). Keats used qualitative questionnaires to explore the responses/perceptions of students to the use of video during counselor training programs, specifically the learning processes that occurred as a result of video use in training. According to the research, and in slight contradiction to the student-centred method of video used in the study conducted by Burnard (1991), students successfully acquired skills through observations of experts modeling skills live or on video, experiencing greater improvement than those who observed themselves on videotape or when listening to lectures (Baum & Gray, 1992).

According to Keats (2008), the way a student interprets the content of a video changes as they advance in their learning. This notion is applicable to the study guiding this paper, in that the time of the placement of this *assessment video* (discussed in *Chapter III*) in a participant's level of education (i.e., after number of courses taken and degree of practical experience undergone), will directly influence the information the participant absorbs from video viewing. More specifically, meaning that the data

collected, following the video viewing, is an accurate representation of the level of the participants' knowledge up to the time the video was viewed.

Keats (2008) also discovered the significance of students' reading information, and/or listening to presentations, on related material prior to viewing a video, in order to fully benefit from the content of a video. Put into context, under these circumstances, individuals viewing a video would be able to look for specific skills, interventions or theoretical markers within the footage to enhance the knowledge they gained from the film. As this pertains to the study guiding this paper, reviewing the *TBA* prior to viewing the film will have enhanced the performance of the participants when completing the *TBA*, therefore, providing a more accurate representation of the participants' client observation skills.

Lastly, Keats (2008) highlighted the value of using actual clients, rather than actors, in the learning process for students. Siegel (2007) emphasized that when the physical actions of a client do not match the expected intention, students observing the client expressed confusion about what they were viewing. When counselors are educating students on perceptions of gesture and emotion, the importance of observing actual responses of clients are significant, meaning that the use of clients may be more beneficial to the learning process than using actors that are posing as clients. This may be relevant to the findings of the study guiding this paper, as an actor played the part of the client in the assessment video.

Within the literature, novice health professionals have proven to experience difficulties in clinical reasoning skills. In a study conducted by Hoben, Varley, & Cox (2007), clinical reasoning skills of speech and language therapy undergraduate students in

their penultimate year of study, and speech and language therapy masters level students in their final year of study, were investigated. In addition, a pair speech and language therapists experienced in aphasia took part, to provide a comparison. The purpose of the study was to examine the students' developing diagnostic reasoning skills, using the *Patient Assessment and Training System (PATSy)* (Hoben et al, 2007). This database is a multimedia case-based database that uses virtual patient cases as a teaching tool, in addition to medical history, video clips, and assessment results. During the study, the students worked in pairs to undertake the diagnoses of a virtual patient case, their interactions related to the patient cases were video-recorded and video-taped, and the pairs completed a learning log that was stored within *PATSy*. After analysis, the results of the students were compared to the results of the experienced speech and language therapists (Hoben et al.). The results indicated the areas of difficulty experienced by the novice therapists: "difficulty in conceptualizing problems at a deep, abstract level, planning a diagnostic strategy, organizing incoming information, evaluating progress and interpreting findings" (Hoben et al., p.131). Based on this study, ideas of resources, to address these issues to better prepare students when interacting with real patients, were developed (Hoben et al).

The study conducted by Hoben et al. (2007), aligns with the design of the study guiding this paper, in that it supports the significance of using a virtual patient scenario (similar to a client assessment video) and completing questions in an online learning log (similar to completing a written, standardized assessment), in analyzing participant skills. In addition, the study guiding this paper compares the assessment results of novice level students to the assessment results of experts within the field of TR.

Done and Parr (2001) designed and evaluated a technical skills based learning package for medical students to develop basic life support (BLS) skills. The purpose of this tool was to place the responsibility of learning the required skills on the student. This educational package consisted of hardcopy and web-based information related to the skills, an *audio-video tape* demonstrating BLS skills, and access to manikins in a facility for students to learn and rehearse in pairs. Of the 51, fourth year, medical students, 47 students were found to be competent in performing the skills during their first assessment (Done & Parr). It was determined that self-directed learning is successful in the acquisition of such skills. It was suggested that a similar program could be successful in the acquisition of other technical skills. Furthermore, it was concluded that practice is significant in mastering BLS skills (Done & Parr). This study has implications for the study guiding this paper, as video footage was proven to be a successful medium in the acquisition of skills. Also, it was noted that practice is significant in the mastering of skills, meaning that participants with practical experience in client observation or completing of assessments may score more accurately on the *TBA*, than participants with less experience.

Lastly, there was one study found within the field of TR that utilized the method of video. Coco-Ripp (2010) conducted a qualitative study that used selected video clips (under three minutes in length) of children with autism, during a leisure activity, as a tool to measure observation skills of students within the classroom setting. The purpose of this study was “to increase the skill level and enhance the abilities of students in the use of observation in the practice of therapeutic recreation” (Coco-Ripp, p. 317). During day one of data collection, students, who were in the midlevel of their TR curriculum, viewed

a video clip within the context of an academic course (i.e., *Procedures in Therapeutic Recreation*), followed by recording all of their observations on an unstructured form. Also, as part of this study, an identical procedure was completed by an expert panel, followed by comparing the student forms to the expert forms for accuracy of content. Next, this same process was repeated following a lecture and discussion on the: “1) characteristics of the diagnosis of the person of focus in the video clip...and 2) techniques for behavior[u]ral observation across a variety of treatment or intervention settings” (Coco-Ripp, p. 315). Lastly, during day two of data collection, the same study participants viewed a different (but comparable) video, followed by recording their observations (Coco-Ripp). Overall, the use of video was successful in the evaluation of observation skills. As mentioned, this study was similar in design to the current study, in that the participants from both studies observed a target population, via video, and recorded observations from these videos; later to compare the student participant scores to the expert scores for accuracy of content.

As indicated above, video is a beneficial educational strategy, providing advantages to the evaluation and growth of students across different health-care professions. Since video technology has been used successfully in education in a variety of ways, across different health-care professions and settings, it is likely that utilizing similar methods will be successful.

Use of Secondary Data

The current study uses the method of secondary data. Secondary data analysis is described as another researcher’s use of existing data in a way that was not intended by the primary researcher (Singleton, 1988). Secondary data is traditionally confined to

survey data, but has been broadened to include official records, video recordings, and tape-recorded interviews, as “all of these methods are free standing and well documented which allows them to be open to secondary analysis” (Burton, 2000, p. 348). Hakim (1982) defined secondary data analysis in more comprehensive terms, stating that “secondary analysis is any further analysis of a dataset which presents interpretations, conclusions, or knowledge additional to or different from, those presented in the first report on the inquiry as a whole and its main results” (p. 12). Researchers utilize secondary data analysis in two primary ways: to replace the process of conducting primary empirical research, or as “one element in a research study” (Burton, p. 348); the former being the way in which secondary data analysis was used in the current study. Although the use of a secondary data set may be thought of as redundant because the data is dated, the goal of the researcher will be to utilize this data by posing important questions which were not analyzed, and overlooked, by the primary researcher (O’Neil, 2000). Upon completion of secondary data analysis, the body of knowledge of a field will be expanded and enriched in ways not conceived by the initial researcher (Hyman, 1972).

According to Hyman (1972) and Veal (1997), an advantage of utilizing a secondary survey data set to answer a research question is that it conserves time, money, and personnel. McCall and Appelbaum (1991) state further advantages to utilizing secondary data, in that “data are already collected and may be exceedingly valuable in terms of the number and rarity of subjects, the number of variables, and the length of the life span that has been assessed” (p. 911).

A potential challenge is that the researchers utilizing the secondary data analysis have “no control over the questions that are asked, in effect it is an ‘off-the-peg’ approach

rather than the ‘haute couture’ method of designing a survey which fits your unique project’s aims and objectives” (Burton, 2000, p. 351). Another limitation in conducting a study using a secondary data set is that survey questions “should not be taken out of context and ‘made to fit’ simply for the present research. Questions should parallel the original data set so that reliability is suitable for academic research” (O’Neil, 2000, p. 34). Lastly, a limitation of secondary data use is that the researcher utilizing this data must rely on the original research procedures used in the primary study. Documenting these procedures from the primary study is important to the secondary researcher and his/her study, but this information is often lacking in detail or inaccessible to the researcher (O’Neil). When documenting the procedures from the primary study, Singleton (1988) strongly suggests that secondary researchers should:

Present the secondary data set in a similar manner as the primary investigator.

This enables the reader to understand the initial research procedures used, how the questionnaire was designed, why the secondary data set was selected and how the secondary researchers used the data set in their analysis. Researchers who use secondary data sets should follow the same research procedures that they use when presenting a primary data set (p. 14).

Singleton’s (1988) suggestions aided in the documentation of secondary data within the current study.

CHAPTER III

Methodology

Introduction

The purpose of this study was to analyze the relationships amongst student demographic characteristics on acquiring the observation competency needed to complete a TR assessment. This chapter is a description of the protocol employed in the selection of the sample, collection of the data, and analysis of the data collected.

Description of the Participants

The participants for this study were taken from a single secondary data set comprised of 219 TR students and professionals (Lane, 2010). A subset, comprised of 172 college and university students, was derived from this secondary data set for the purpose of the current study. More specifically, these 172 college and university students were enrolled in different post-secondary programs offered at six institutions throughout Ontario that offer TR as a degree, diploma, or option (i.e., a degree in a related field with a concentration or specialization in TR), who were recruited via mail, email or telephone (Lane). The participants making up this subset of data were college students in their second year of study, and university students ranging from their second to fourth year of study. Ethical approval was granted by Brock University for the conduct of this research study.

Description of the Test Instrument

The *Tracking Behavioral Assessment (TBA)*, developed by Passmore (2002) (see Appendix D), was the observation instrument used to assess a standardized client during a role-played client-therapist interview. The *TBA* is a testing instrument designed to

assess the functional abilities of older adults diagnosed with psychiatric illness. This assessment tool is comprised of 19 components, grouped under the following five distinct domains of functioning: 1) Emotional (i.e., frustration tolerance, attitude, affect, and self-esteem); 2) Physical (i.e., ambulation, balance, coordination of gross and fine motor skills, and endurance); 3) Cognitive Functioning (i.e., orientation, concentration/attention span, follows directions, decision making, and memory); 4) Leisure Life Style (i.e., participation, leisure patterns, and coping skills and adaptation); and 5) Socialization (i.e., dyadic interaction, and social interest) (Passmore).

Design of the Experiment

As secondary data was utilized for this study (Lane, 2010), the data collection process used for the collection of the primary data is explained in this section. The first step in the study was to secure video viewing sites at various colleges and universities in Ontario. Next, a *Letter of Invitation* (see Appendix A) was sent via mail or email, or a script was read via telephone, to all the university and college programs in Ontario that offer TR as a degree, diploma, or option, to formally invite students to participate in the study. For individuals who indicated their willingness to participate, a specific testing date, time and location were arranged (Lane, 2010). Upon arrival at the different testing sites, each participant received an envelope in which to place the written *Consent Form* (see Appendix B), the *Demographic Information Form* (see Appendix C) and the *TBA* (see Appendix D) at the completion of the data collection phase. Once settled, the participants completed their *Consent Form* and *Demographic Information Form*, followed by listening to the instructions for watching the video and completing the *TBA* (see Appendix E). Specifically, individuals were asked to place their completed *Consent*

Form and Demographic Information Form back into their envelopes (Lane). Next, participants individually reviewed the *TBA*, followed by viewing the client assessment video as a group. The 7-minute video, taken from a secondary source (Passmore, 2002), highlighted a role-played interview of a TRS and a standardized client. The client in the video interview was an actor instructed to demonstrate specific behaviours representative of an older adult with a psychiatric illness. After observing the client's behaviours, participants were asked to complete the *TBA*, followed by placing this assessment into their respective envelopes. At the completion of the data collection, the envelopes containing the three documents were collected for analysis (Lane).

A card with the principal investigator's contact information (i.e., email and telephone number) was given to the participants to allow them the opportunity to seek a copy of their results, and a summary of this research project, after the completion of the study. Prior to exiting the viewing sites, participants were provided with a ticket to fill out with their contact information, in order to participate in a draw for the amount of 500 dollars. The anonymity of the participants was kept secure throughout this process by storing the data in a secure location (Lane, 2010).

Description of the Video

As previously mentioned, the 7-minute video footage clip, taken from a secondary source, was of a standardized client during a role-played client-therapist interview. More specifically, within the video, a doctorate-level CTRS interviewed an actor portraying a client, whom was instructed to demonstrate specific behaviours, identifiable by the *TBA*, while pursuing a leisure activity (Passmore, 2002). The client was a "paid performer

trained in the specific task of imitating various diagnoses of clients within the health care environment for instructional purposes” (Passmore, p. 68).

Using a video recording to capture observational data is an accessible method of client observation in a controlled environment. According to Russell et al. (1994), there are many advantages of using video to collect observational data:

First, it is possible to evaluate the effects of an intervention (such as a training workshop) in a standardized manner...Second, the use of videotapes allows an efficient means of assessing several patients of varying diagnostic and functional levels while eliminating the issue of patient compliance...[For example,] videotapes can be edited to ensure they are capturing different training issues and covering an appropriate spectrum of function...[Lastly, videotapes provide] an easy method of assessing ongoing levels of [practitioner] competency (p. 635).

Statistical Analysis

This study utilized a quantitative approach to answer the first research question: How does the observation competency amongst current TR students compare? The demographic and *TBA* information take from the 172 participants (126 university students; 46 college students) was keyed into *Statistical Package for the Social Sciences (SPSS), version 19*. Mean scores were calculated for each of the five domains of the *TBA* (i.e., emotional functioning, physical functioning, cognitive functioning, leisure life style, and socialization); more specifically, each mean score, for each domain, was comprised of the sum of the components under each domain. It is important to note that the socialization domain was broken down into its two components (i.e., dyadic interaction and social interest) for the purpose of this study, in order to allow for greater accuracy of

results. The data analysis process used *SPSS v. 19* to analyze the closed-ended, quantitative information. Statistical methods included descriptive statistics (i.e., means, medians and frequencies) to define the characteristics of the variables comprising the *Demographic Information Form* and the *TBA*, independent samples t-tests, and analysis of variance (ANOVA). The descriptive statistics were calculated for the important demographic characteristics of the participants, and for the mean scores of the five domains of the *TBA*. Independent samples t-tests were calculated to determine the difference between the gender of participants, on the mean score of each domain of the *TBA*; the difference between the type of institution (i.e., college or university) that participants were enrolled in, on the mean score of each domain of the *TBA*; and the difference between college students with practical experience and university students with practical experience, on the mean score of each domain of the *TBA*. Analysis of variance (ANOVA) was calculated to compare the current year of college or university enrollment of participants, on the mean score for each domain of the *TBA*; and the number of courses taken by participants, on the mean score for each domain of the *TBA*.

Some of the participants did not respond to all of the questions in the *Demographic Information Form* because the question(s) did not apply to them or perhaps they unintentionally skipped past the question(s). In addition, some of the participants did not respond to all of the components comprising the different domain sections of the *TBA* because they may have been unsure of the answer or they may have unintentionally skipped past them. For both the questionnaire and the assessment there were few missing responses, which resulted in points of missing data.

Comparison of Student Scores to Expert Scores

Following the statistical analyses of data, the mean scores of the TR students on the different domains of the *TBA* were compared to the mean scores of the experts.

Description of the Experts

The experts in this study are characterized as being ten CTRS's with five to ten years of experience working with residents with geropsychiatric conditions in long-term care settings. These CTRS's, recruited by Passmore (2002), were members of the Therapeutic Recreation Association of Oklahoma, working at various healthcare facilities throughout the state of Oklahoma, during the year 2000. For the purpose of the current study, this expert data (i.e., secondary data) was utilized. Prior to Passmore's collection of the expert data, the participants received introductory information on the *TBA*. During Passmore's collection of this data, the experts responded to the *TBA* after observing and scoring the video two times at two-week intervals. The resulting data consisted of accurate assessment scores for the different domains comprising the *TBA*, which was used as a baseline to compare to the current study's participant scores. Therefore, this secondary data was used in the current study to determine the accuracy of the TR student scores when scoring the *TBA*.

CHAPTER IV

Results and Discussion

Introduction

The purpose of this study was to assess the relationships amongst TR student demographic characteristics (i.e., gender, college or university program, practical experience, year of study, number of courses completed) on acquiring the observation competency necessary to conduct a TR assessment. This study attempted to answer the following question: What are the observation competency levels amongst current TR students?

This question was answered by acquiring secondary data of participants from a previous study comprised of 219 participants; more specifically, selecting a subset of this data (Lane, 2010). This subset consisted of 172 students, in either their second, third, or fourth year of post-secondary education, from a variety of colleges and universities in Ontario, offering TR as a degree, diploma or option. Statistical analysis was conducted by comparing participant data taken from the *Demographic Information Form* and the *TBA*. Following, the second question was answered by comparing the mean scores of the TR students, to the mean scores of the TR experts, for the different domains of the *TBA*.

Results

Participant Demographic Information

A total of 172 students were selected, from secondary data (Lane, 2010), to participate in this study. Approximately 147 (85.5%) participants were female and 25 (14.5%) male. The participants ranged in age from ≤ 20 to 50 years old. Specifically, 84 (48.8%) participants were in the 21-23 age bracket, 46 (26.7%) in the 20 and younger age

bracket, 25 (14.5%) in the 24-27 age bracket, and approximately 17 (10%) in the 28-50 age bracket. Of the participants, 126 (73.3%) were currently enrolled in a TR university program and 46 (26.7%) were currently enrolled in a TR college program. These findings are reported in Table 1.

Table 1

Frequency Data of TR Student Demographic Characteristics

Demographic characteristic	Frequency (<i>n</i> = 172)	% of total respondents
Gender		
Female	147	85.5
Male	25	14.5
Age bracket		
≤ 20 years old	46	26.7
21-23 years old	84	48.8
24-27 years old	25	14.5
28-50 years old	17	10
Type of institution		
University	126	73.3
College	46	26.7

Furthermore, of 166 responding students, 47 (28.3%) were fourth year university students, 44 (26.5%) were third year university students, 41 (24.7%) were second year college students, and 34 (20.5%) were second year university students. Of 170 responding participants, 54 (31.8%) had only completed one TR course, 36 (21.2%) had completed at least six TR courses, 23 (13.5%) had completed four TR courses, 21 (12.4%) had completed two TR courses, 21 (12.4%) had completed three TR courses, and 15 (8.8%) had completed five TR courses. Eighty-seven (50.6%), of 172 responding participants, were university students with practical TR experience, 42 (24.4%) were college students with practical TR experience, 39 (22.7%) were university students with no practical TR experience, and only 4 (2.3%) were college students with no practical TR experience. These findings are reported in Table 2.

Table 2

Frequency Data of College and University Student Characteristics

Demographic characteristic	Frequency	% of total respondents
Year enrolled in institution ($n = 166$)		
Second year college	41	24.7
Second year university	34	20.5
Third year university	44	26.5
Fourth year university	47	28.3
# of TR courses completed ($n = 170$)		
One	54	31.8

Two	21	12.4
Three	21	12.4
Four	23	13.5
Five	15	8.8
\geq Six	36	21.2
TR practical experience ($n = 172$)		
College students/no experience	4	2.3
College students/experience	42	24.4
University students/no experience	39	22.7
University students/experience	87	50.6

Testing the Hypotheses

Gender. H_{01} : There is no significant difference between a student's gender and ability to score the domains of a TR assessment.

An independent-samples t-test was conducted to compare mean scores of female and male participants for the different domain means of the *TBA*. There was not a significant difference between the scores found for the female and male student conditions, meaning that the two variances were approximately equal for the different domains of the *TBA*. Therefore, the H_{01} is not rejected. Specifically, the results suggest that the female and male students scored approximately the same for each domain of the *TBA*.

College versus university education. H0₂: There is no significant difference between a student's type of institution and ability to score the domains of a TR assessment.

An independent-samples t-test was conducted to compare the mean scores of TR college and university students for the different domains of the *TBA*. Of the five domains, the findings illustrate a significant difference between the *TBA* mean scores of the college and university students for both the emotional functioning and socialization domains. In greater detail, when analyzing the emotional functioning domain, there was a significant difference found between the *TBA* scores of the college (M=2.95, SD=0.62) and university (M=2.54, SD=0.36) student conditions; $t(56.59)=4.18, p<.001$. Therefore, the H0₂ is rejected in favour of H1₂. These results suggest that the differences between college and university education does have an effect on one's ability to score a client's emotional functioning. More specifically, college students scored higher on the emotional functioning domain than university students.

In addition, there were significant differences found for the *TBA* scores on both components of the socialization domain (i.e., dyadic interaction and social interest). When analyzing the dyadic interaction component of the socialization domain, there was a significant difference found between the scores of the college (M=3.22, SD=0.67) and university (M=2.94, SD=0.70) student conditions; $t(168)=2.27, p<.05$. Therefore, the H0₂ is rejected in favour of H5₂. These results suggest that the differences between college and university education does have an effect on one's ability to score a client's dyadic interaction. Specifically, the results suggest that college students scored higher on dyadic interaction than university students.

Lastly, when analyzing the social interest component of the socialization domain, there was a significant difference found between the scores of the college (M=2.57, SD=0.75) and university (M=2.04, SD=0.99) student conditions; $t(104.94)=3.69, p<.001$. Therefore, the H_{02} is rejected in favour of H_{62} . These results suggest that the differences between college and university education does have an effect on one's ability to score a client's social interest. Specifically, the results suggest that college students scored higher on social interest than university students. The above findings are reported in Table 3.

Table 3

Comparing TBA Mean Scores of University and College Students

<i>TBA</i> domain	Post-secondary institution		<i>T</i>	<i>Df</i>
	University	College		
Emotional functioning	2.54 (0.36)	2.95 (0.62)	4.18***	56.59
Socialization: dyadic interaction	2.94 (0.70)	3.22 (0.67)	2.27*	168
Socialization: social interest	2.04 (0.99)	2.57 (0.75)	3.69***	104.94

Note. * = $p \leq .05$, *** = $p \leq .001$. Standard Deviations appear in parentheses below means.

Practical experience in TR. H0₃: There is no significant difference between a student's level of practical experience in TR and ability to score the domains of a TR assessment.

An independent-samples t-test was conducted to compare the mean score of TR college students with practical experience in the field, to the mean score of TR university students with practical experience in the field, for the different domains comprising the *TBA*. Of the five domains, there was a significant difference found when comparing the means scores for both the emotional functioning and socialization domains. In greater detail, when analyzing the emotional functioning domain, the results indicated a significant difference in the *TBA* scores between the college students with practical experience (M=2.96, SD=0.64) and university students with practical experience (M=2.55, SD=0.37) conditions; $t(54.38)=3.90, p<.001$. Therefore, the H0₃ is rejected in favour of H1₃. These results suggest that the differences between college and university education, in conjunction with practical experience, has an effect on one's ability to score a client's emotional functioning. Specifically, the results suggest that college students with practical experience score higher on the emotional functioning domain than university students with practical experience.

In addition, when analyzing the mean scores of college and university students with practical experience for both components of the socialization domain (i.e., dyadic interaction and social interest), significant differences were found. For dyadic interaction, there was a significant difference found between the scores of the college students with practical experience (M=3.29, SD=0.64) and university students with practical experience (M=3.02, SD=0.73) conditions; $t(125)=2.02, p<.05$. Therefore, the H0₃ is rejected in

favour of H5₃. These results suggest that the differences between college and university education, in conjunction with practical experience, has an effect on one's ability to score a client's dyadic interaction. Specifically, the results suggest that college students with practical experience score higher on dyadic interaction than university students with practical experience.

Lastly, when analyzing the mean scores for the social interest component of the socialization domain, a significant difference was found between the scores of the college students with practical experience (M=2.62, SD=0.70) and university students with practical experience (M=2.01, SD=0.97) conditions; $t(108.55)=4.10, p<.001$). Therefore, the H0₃ is rejected in favour of H6₃. These results suggest that the differences in college and university education, in conjunction with practical experience, have an effect on one's ability to score a client's social interest. Specifically, the results suggest that college students with practical experience score higher on social interest than university students with practical experience. The above findings are reported in Table 4.

Table 4

Comparing TBA Mean Scores of University and College Students with TR Practical Experience

<i>TBA</i> domain	Post-secondary institution		<i>t</i>	<i>Df</i>
	University	College		
Emotional functioning	2.55 (0.37)	2.96 (0.64)	3.90***	54.38
Socialization: dyadic interaction	3.02 (0.73)	3.29 (0.64)	2.02*	125
Socialization: social interest	2.01 (0.97)	2.62 (0.70)	4.10***	108.55

Note. * = $p \leq .05$, *** = $p \leq .001$. Standard Deviations appear in parentheses below means.

Year of post-secondary enrollment. H0₄: There is no significant difference between a student's year of enrollment and ability to score the domains of a TR assessment.

A one-way ANOVA was used to test for *TBA* domain mean score differences amongst the varying years of post-secondary enrollment (i.e., second year college students, second year university students, third year university students, and fourth year university students). The *TBA* domain mean scores differed significantly across the varying years of post-secondary enrollment for both the emotional functioning and

socialization domains (i.e., social interest), at $p < .05$. In greater detail, the emotional functioning domain scores differed significantly across the varying years of post-secondary enrollment, $F(3, 162) = 11.11, p < .001$. Scheffe post-hoc comparisons of the different years of enrollment indicated that second year college students ($M = 2.99, 95\% \text{ CI } [2.79, 3.19]$) scored significantly higher on the emotional functioning domain than second year university students ($M = 2.45, 95\% \text{ CI } [2.35, 2.56]$), $p < .001$. Also, Scheffe post-hoc comparisons indicated that second year college students ($M = 2.99, 95\% \text{ CI } [2.79, 3.19]$) scored significantly higher on the emotional functioning domain than third year university students ($M = 2.61, 95\% \text{ CI } [2.48, 2.73]$), $p < .01$. Lastly, Scheffe post-hoc comparisons indicated that second year college students ($M = 2.99, 95\% \text{ CI } [2.79, 3.19]$) scored significantly higher on the emotional functioning domain than fourth year university students ($M = 2.54, 95\% \text{ CI } [2.44, 2.64]$), $p < .001$. Therefore, the H_{04} is rejected in favour of H_{14} .

Furthermore, the scores for the social interest component of the socialization domain differed significantly across the varying years of post-secondary enrollment, $F(3, 162) = 3.89, p < .01$. Scheffe post-hoc comparisons of the different years of enrollment indicated that the second year college students ($M = 2.59, 95\% \text{ CI } [2.35, 2.82]$) gave significantly higher scores on social interest than the fourth year university students ($M = 1.94, 95\% \text{ CI } [1.65, 2.22]$), $p < .05$. Comparisons between both the second year university students ($M = 2.04, 95\% \text{ CI } [1.68, 2.41]$), and the third year university students ($M = 2.14, 95\% \text{ CI } [1.84, 2.43]$), on the other years of enrollment were not found to be statistically significant at $p < .05$. Therefore, the H_{04} is rejected in favour of H_{64} . The above findings are reported in Table 5.

Table 5

Comparing Student TBA Mean Scores of Different Years of Post-Secondary Education

<i>TBA</i> domain	Year at post-secondary institution				<i>F</i>
	2 nd year college	2 nd year university	3 rd year university	4 th year university	
Emotional					
functioning	2.99 _a (.64)	2.45 _b (.30)	2.61 _b (.41)	2.54 _b (.35)	11.11***
Socialization:					
social interest	2.59 _a (.71)	2.04 _{ab} (1.05)	2.14 _{ab} (.98)	1.94 _b (.97)	3.89**

Note. ** = $p \leq .01$, *** = $p \leq .001$. Standard deviations appear in parentheses below means. Means with different subscripts differ significantly at $p < .05$ according to Scheffe's post hoc test.

Number of TR courses completed. H0₅: There is no significant difference between the number of TR courses a student has completed and ability to score the domains of a TR assessment.

A one-way ANOVA analysis was used to test for *TBA* domain mean score differences amongst the number of TR courses completed. The *TBA* domain mean scores differed significantly across the number of TR courses completed for both the emotional functioning and socialization domains (i.e., social interest). In greater detail, the scores for the emotional functioning domain differed significantly across the number of TR courses completed, $F(5, 164)=3.98, p=0.002, p<.01$. Scheffe post-hoc comparisons of the

different number of TR courses completed indicated that the students who had completed only one TR course (M=2.87, 95% CI [2.70, 3.03]) gave significantly higher scores on the emotional functioning domain than students who had completed two TR courses (M=2.40, 95% CI [2.25, 2.55]), $p < .05$. Comparisons between students who had completed three TR courses (M=2.57, 95% CI [2.40, 2.74]), four TR courses (M=2.57, 95% CI [2.40, 2.75]), five TR courses (M=2.68, 95% CI [2.46, 2.91]), and six or more TR courses (M=2.58, 95% CI [2.47, 2.70]), on the different numbers of courses completed, were not statistically significant at $p < .05$. Therefore, the H_{05} is rejected in favour of H_{15} .

Futhermore, the scores for the social interest component of the socialization domain differed significantly across the different number of TR courses completed, $F(5, 164) = 3.06$, $p < .05$. Tukey post-hoc comparisons of the different number of courses completed indicated that the students who had completed only one TR course (M=2.54, 95% CI [2.31, 2.77]) gave significantly higher scores for social interest than students who had completed three TR courses (M=1.81, 95% CI [1.36, 2.26]), $p < .05$. Also, Tukey post-hoc comparisons of the different number of courses completed, indicated that the students who had completed only one TR course (M=2.54, 95% CI [2.31, 2.77]) gave significantly higher scores on social interest than students who had completed four TR courses (M=1.83, 95% CI [1.40, 2.25]), $p < .05$. Comparisons between students who had completed two TR courses (M=2.10, 95% CI [1.64, 2.55]), five TR courses (M=2.33, 95% CI [1.79, 2.87]), and six or more TR courses (M=2.14, 95% CI [1.82, 2.45]), on the different numbers of courses completed, were not statistically significant at $p < .05$.

Therefore, the H_{05} is rejected in favour of H_{65} . The above findings are reported in Table 6.

Table 6

Comparing Student TBA Mean Scores for Different Number of TR Courses Completed

<i>TBA domain</i>	Number of TR courses						<i>F</i>
	1	2	3	4	5	6+	
Emotional							
functioning	2.87 _a (.61)	2.40 _b (.34)	2.57 _{ab} (.37)	2.57 _{ab} (.41)	2.68 _{ab} (.41)	2.58 _{ab} (.34)	3.98**
Socialization:							
social interest	2.54 _a (.84)	2.10 _{ab} (1.00)	1.81 _b (.98)	1.83 _b (.98)	2.33 _{ab} (.98)	2.14 _{ab} (.93)	3.06*

Note. * = $p \leq .05$, ** = $p \leq .01$. Standard deviations appear in parentheses below means. Means with different subscripts in 'emotional functioning' row differ significantly at $p < .05$ according to Scheffe's post hoc test. Means with different subscripts in 'socialization: social interest' row differ significantly at $p < .05$ according to Tukey's honestly significant difference comparison.

TBA Domain Mean Scores of Experts

After reviewing the findings within the different subsections comprising this *Results* section, and comparing the *TBA* mean scores of the varying TR student characteristics to the *TBA* mean scores of the experts, it can be noted that *virtually all* of the *TBA* domain scores of the students varied from those of the experts for each of the conditions analyzed (i.e., *Gender, College versus university education, Practical experience in TR, Year of post-secondary enrollment, Number of TR courses completed*), for both the significant and insignificant data results found in this study. The two

exceptions were found for students who had completed two and five TR courses, as these mean scores corresponded to the experts on the dyadic interaction component of the socialization domain. There was no agreement of scores found between the different student conditions and the experts on the remaining domains comprising the *TBA*.

As elaborated on in Figures 1 to 4, when looking specifically at the significant findings resulting from this study, it is evident that the TR students' *TBA* domain mean scores differed from those of the experts, falling both higher and lower than the expert scores.

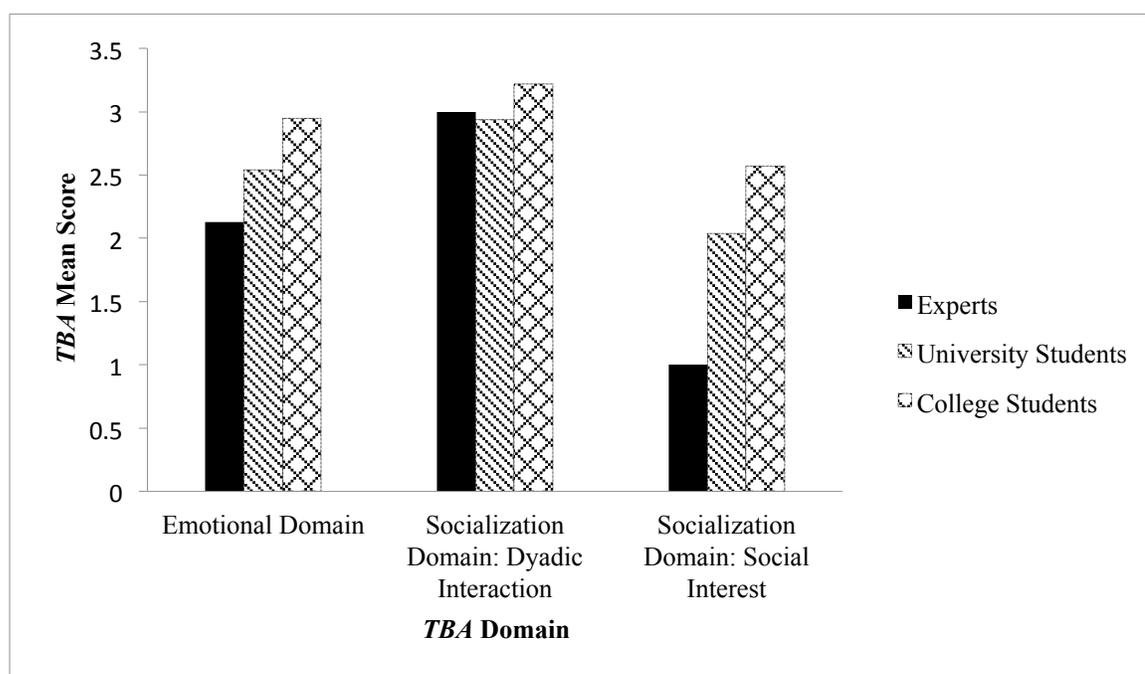


Figure 1. Comparison of *TBA* mean scores of experts to significant *TBA* mean scores of TR students.

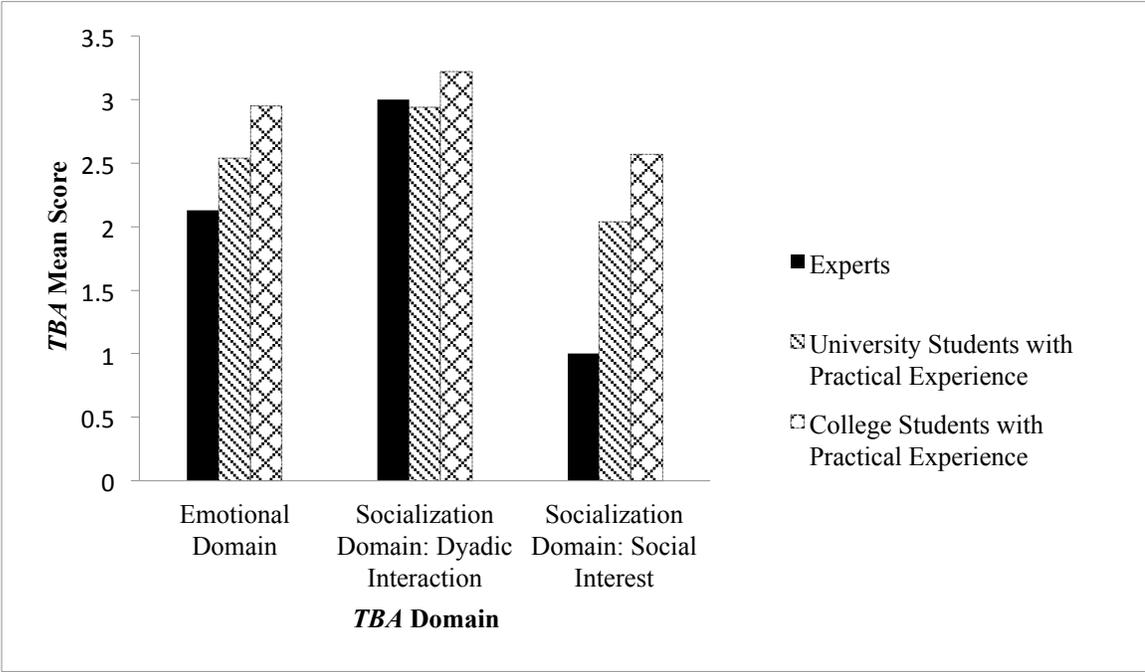


Figure 2. Comparison of TBA mean scores of experts to significant TBA mean scores of students with practical experience.

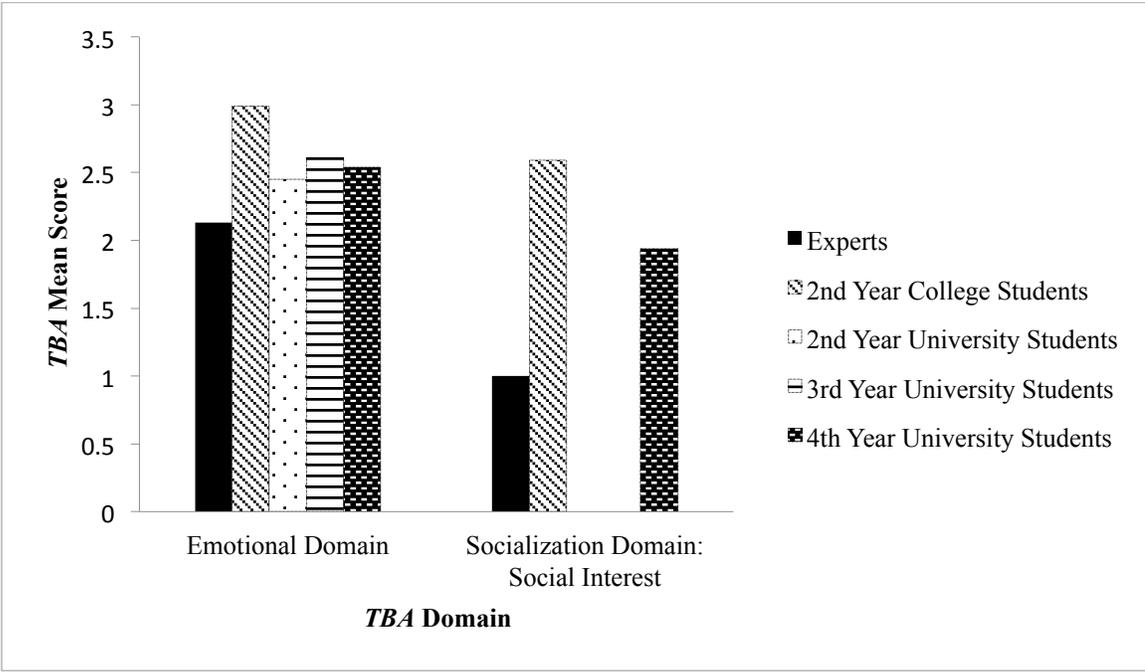


Figure 3. Comparison of TBA mean scores of experts to significant TBA mean scores of students' year of post-secondary enrollment.

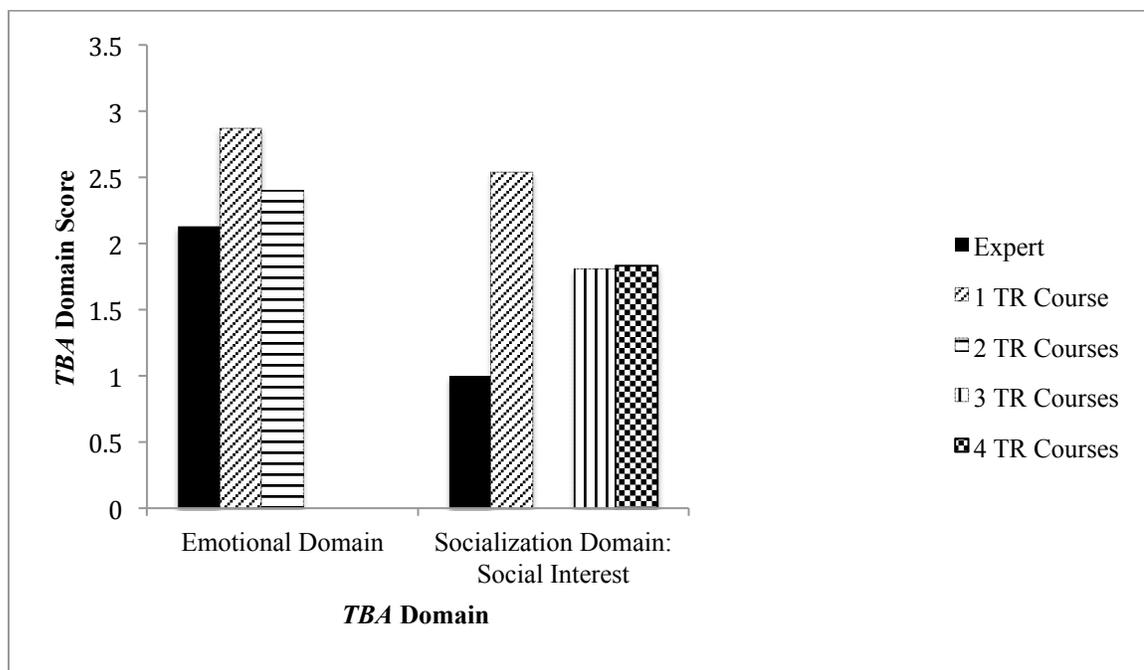


Figure 4. Comparison of *TBA* mean scores of experts to significant *TBA* mean scores of number of TR courses completed.

Discussion

The research question guiding this study was: What are the observation competency levels amongst current TR students? The results of data analysis indicated that there are significant differences amongst specific student demographic characteristics on the scores of two of the five domains of the *TBA*, the emotional functioning domain and the socialization domain (i.e., dyadic interaction and social interest). It is important to note, the participants who selected a significantly higher score for both the emotional functioning domain, and the dyadic interaction and social interest components comprising the socialization domain, assessed the client as having a greater ability to function in these domains, as opposed to having a lesser degree of functionality. In context, for each statistically significant student condition, the higher score for both the emotional functioning domain and the components of the socialization domain represented a score

that was further away from the correct assessment score, therefore, a less accurate score of client functionality, and vice versa.

Gender

The findings suggest that the female and male students scored approximately the same for all of the domains of the *TBA*.

College versus University Education

The findings suggest that the TR college and university students scored approximately the same for all but two of the domains of the *TBA*. Specifically, TR college students scored significantly higher than TR university students on the emotional functioning domain, the dyadic interaction component of the socialization domain, and the social interest component of the socialization domain. Therefore, the university students scored more accurately than the college students on these two domains of the *TBA*.

Practical Experience in TR

The findings suggest that the TR college and university students with practical experience scored approximately the same for all but two of the domains of the *TBA*. Specifically, TR college students with practical experience scored significantly higher than TR university students with practical experience on the emotional functioning domain, the dyadic interaction component of the socialization domain, and the social interest component of the socialization domain. Therefore, the university students with practical experience scored more accurately than the college students with practical experience on these two domains of the *TBA*.

Year of Post-secondary Enrollment

The findings suggest that the students scored approximately the same for all but two of the domains of the *TBA*. Specifically, second year college students scored significantly higher on the emotional functioning domain than second year university students, third year university students, and fourth year university students. In addition, second year college students scored significantly higher on the social interest component of the socialization domain than fourth year university students. Therefore, the college students scored least accurate scores on these two domains of the *TBA*.

Number of TR Courses Completed

The findings suggest that the students scored approximately the same for all but two of the domains of the *TBA*. Specifically, students who had completed only one TR course scored significantly higher on the emotional functioning domain than students who had completed two TR courses. In addition, students who had completed only one TR course scored significantly higher on the social interest component of the socialization domain than students who had completed both three and four TR courses. Therefore, the students with only one TR course completed, had the least accurate scores on these two domains of the *TBA*.

In general, the results showed that the students with university level knowledge, TR practical experience and more advanced TR education, had less variation from the experts scores for the emotional functioning and socialization domains of *TBA*, and vice versa.

Statistically Insignificant TBA Domain Results

Although only the *significant* results were illustrated in depth throughout this paper, it is important to note that the statistically *insignificant* results still showed slight *variations* in the mean scores on the physical domain, cognitive functioning domain, and leisure life style domains. Perhaps the lack of statistical significance amongst scores on these domains can be attributed to the dispersion of the participants comprising the different student conditions; meaning, a more even distribution of participants in each student condition may have enabled greater accuracy of these results. In addition, after comparing the statistically insignificant student mean scores to the mean scores of the experts, virtually all of these student scores varied from the expert scores.

As previously mentioned, the purpose of this study was to assess the relationship amongst the student demographic characteristics (i.e., gender, college or university program, practical experience, year of study, number of courses completed) on acquiring the observation competency needed to conduct a TR assessment. Significant differences were found in the emotional functioning domain, and in the components of the socialization domain, for *all* of the student conditions. Analyzing both the emotional functioning skills and socialization skills of a client is more complex than analyzing the other domains, as these domains require not only the use of a TRS's objective information, but also *subjective* information.

Perhaps the emotional functioning domain is more difficult to observe because even though TRS's "can describe physical attributes of affect, the assignment of meaning is very subjective...[and] hard to quantify" (Burlingame & Blaschko, 2010, p. 323). Whereas, the socialization domain is difficult to observe because it is considered to be the

least developed area of measurement within TR; few assessments have adequate psychometric properties. This may be due to the subjective nature of evaluating this domain, or because a TRS's clinical judgment is in fact the most valid method for assessing this domain.

Explained in greater detail, objective information refers to “information about a real object that emphasizes the features and characteristics of that object. This information frequently can be described and measured by many individuals through observation” (Burlingame & Blaschko, 2010, p. 10). Furthermore, “One of the main ways you can determine if information falls into the objective category is when two different individuals are able to measure or observe the object and come up with the same results” (Burlingame & Blaschko, p. 10). Whereas, subjective information refers to “information about a thought, a feeling, or about something that exists only in the mind of an individual. One of the main ways in which you can determine if information is subjective is when two different individuals are not able to come up with the same results” (Burlingame & Blaschko, p. 10). As subjective information refers to measuring a client's thoughts or feelings, which are areas not easily assessed through observation, a TRS has to rely more heavily on his/her *clinical opinion*. Burlingame and Blaschko define clinical opinion as “a belief that the therapist holds about a client's functional skill or attitude based on technical knowledge and experience...Clinical opinion can only be as strong as the professional's knowledge, skills, and objectivity” (p. 98). Therefore, a TRS's degree of knowledge and skill level will play a large part in his/her ability to observe and score a client's emotional functioning and socialization skills.

Student *TBA* scores on the physical functioning domain, cognitive functioning domain, and the leisure life style domain were not found to be significantly different from one another, perhaps because these three domains appear to be more technical in nature than the emotional functioning domain and the socialization domain. Meaning, that when assessing these three domains, there are generally more concrete and conclusive results expressed through client actions and words. It appears that the components comprising these domains are more easily observed than those comprising the emotional functioning and socialization domains. For example, when assessing the physical functioning domain, a TRS can assess a client's coordination by directly observing the client perform a physical task; when assessing the cognitive functioning domain, a TRS can assess a client's memory by directly observing (i.e., verbal and physical cues) their ability to recall information; and when assessing the leisure life style domain, a TRS can assess a client's past and present leisure pursuits by discussing and/or observing participation in these activities of interest.

Based on the study's findings, one may also infer that there are differences amongst the education related to observing client behaviours that is provided at colleges and universities, as evidenced by the deviations amongst the *TBA* scores between the college and university students on the emotional and socialization domains. At the completion of a two-year college degree, or a three- or four-year university degree, students will graduate and enter the profession, irrespective of their institution of graduation.

In Canada, colleges and universities are considered to be different types of institutions. Colleges offer certificate and diploma programs that are shorter in duration

(one to three years), and more directly career-oriented, offering more practical/hands-on training, than degrees offered at universities (Ontario Council of Agencies Serving Immigrants, 2011). Conversely, universities offer degree programs (three to four years) containing more conceptual and field-specific knowledge (Ontario Ministry of Training, Colleges, & Universities, 2012).

According to Marchildon (2006), in Canada, the 20 college and university programs offering courses in TR are: Recreation and Leisure, Kinesiology, and Therapeutic Recreation. Within these programs, students are required to complete anywhere from 1 to 11 courses in TR to fulfill the requirements of the particular program. In addition, 13 of these programs require students to complete fieldwork placements or internships, but not specifically in TR (Marchildon). Canadian TR college programs are two years in length; whereas university programs are three or four years in length, with the option of completing an internship under a CTRS, thus being eligible to register for the NCTRC certification exam. Furthermore, all college courses taken by students count towards the completion of their TR program, even though these courses may be unrelated to TR; whereas university programs require the completion of a core curriculum, additional TR courses, supportive coursework, and electives (Marchildon). Overall, both college and university programs have their strengths, but in Canada, a university degree in TR appears to provide a student with more comprehensive knowledge and a greater skill set, upon entering into the field as a TRS.

After analyzing and interpreting the study results, it should be noted that any findings straying from the above conclusions may be attributed to: the sample size, related to the dispersion of participants amongst the different student conditions; the

characteristics of the individual participants that were not taken into consideration within this study; and/or the particular university or college participants attended, as there are inconsistencies in the TR curriculum offered at different post-secondary institutions across Ontario.

CHAPTER V

Summary, Conclusions and Recommendations

Summary

This study was an investigation into the relationships amongst the demographic characteristics of post-secondary TR students and their ability to observe a client, as part of the assessment process. A client assessment is the foundational element of the TR process, from which the planning, intervention, and evaluation phases develop. Therefore, significance should be placed on understanding the different variables influencing a student's ability to acquire the skill of client observation.

In greater detail, this study assessed how gender, type of institution, level of practical experience, year of study, and number of courses completed, influences a student's ability to acquire the observation competency necessary to conduct a TR assessment. This study attempted to answer the following question: What are the observation competency levels amongst current TR students?

Statistical analyses dictated that there is a significant difference between the TR program knowledge of college and university students in relation to observing the emotional and socialization behaviours of a client. More specifically, the college students (under all student conditions), and the students who had completed only one TR course, scored furthest from the expert scores in these two domains. Where as the university students (under all student conditions), and students who had completed two or more TR courses, scored closer to the expert scores in these two domains. Furthermore, after comparing *all* of the student condition mean scores for the different domains of the *TBA* (i.e., both the significant and insignificant mean scores) to the experts scores, it was noted

that the TR student mean scores varied from the expert mean scores for virtually all of the domains comprising the *TBA*.

Conclusions

This study attempted to answer to the following research question: What are the observation competency levels amongst current TR students?

Simply stated, TR university students scored more accurately than TR college students on the emotional functioning domain, the dyadic interaction component of the socialization domain, and the social interest component of the socialization domain. TR university students with practical experience scored more accurately than TR college students with practical experience on the emotional functioning domain, the dyadic interaction component of the socialization domain, and the social interest component of the socialization domain. Second year, third year, and fourth year TR university students scored more accurately on the emotional functioning domain than second year TR college students. In addition, fourth year university students scored more accurately on the social interest component of the socialization domain than second year TR college students. Students who had completed two TR courses scored more accurately on the emotional functioning domain than students who had completed only one TR course. Lastly, students who had completed three and four TR courses scored more accurately on the social interest component of the socialization domain than students who had completed only one TR course.

Since college programs offer TR programs that are shorter in duration, and less comprehensive than programs offered in universities, TR college graduates would leave these programs and enter the field with very specific knowledge directly applied to their

previous experiences. As university programs offer degrees that encourage more conceptual and field-specific knowledge, offering TR university programs that are longer in duration and more comprehensive, TR university graduates would enter the field with more comprehensive knowledge and experience, enabling them to confidently apply their skills to many different clients within the field. In other words, and in accordance with the results of this study, university graduates may be better prepared than college students for entry-level practice in the field of TR.

There were only significant differences found between two of the five functional domains comprising the *TBA*: the emotional domain and the socialization domain. Both of these domains are functional assessment areas that are considered to be subjective in nature. As a result, when a TRS observes a client's level of emotional functioning and/or socialization, one's knowledge and previous experience may provide greater insight into their ability to do so. As the *TBA* scores of the university students were more accurate than the scores of the college students on the emotional functioning and socialization domains, the TR college program curricula requires more thorough education focusing on the skills involved in observing client behaviours. Overall, the more advanced the knowledge and experience of a TRS, the more insight and accuracy they will have when observing client behaviours. In addition, upon graduation from their programs and when TRS's enter the field, their knowledge and skills will evolve as they advance through their careers, in turn, enabling them to more accurately observe clients across all of the functional domains.

Furthermore, virtually all of the TR student scores differed from the expert scores, across the five functional domains. Although, the students more advanced in their

knowledge and experience appeared to score more closely to the experts, and vice versa. In other words, the more advanced the knowledge and experience of TRS's, the more insight and accuracy they will apply to client observation. This more clearly explains why the expert scores differed from the student scores across the domains of the *TBA*, as the experts clearly have more practical experience than the students. Once employed in the field, over time, a TRS's confidence, practical skills and knowledge strengthen, enhancing their skill set, enabling them to more accurately observe client behaviours. Although professionals evolve during employment in the field, it is still important to first enter the field with a solid base knowledge and skill set to build upon.

Limitations of the Study

A limitation was found related to the population sample size utilized in this study, in that there was a noteworthy difference between the number of participants enrolled in university versus college. Of the 172 participants involved in this study, 126 (73.3%) of the participants were enrolled in university, whereas only 46 (26.7%) of the participants were enrolled in college. This difference in sample size may have influenced the validity of the results of this study.

A possible limitation of this study is that the *TBA* was developed to assess the functional abilities of older adults diagnosed with psychiatric illness, which would imply that the results of this study would favour participants who had a history of working with this population. The independent variables analyzed did not take into account the specific client populations making up the work history of the study participants, therefore the interpretation of the study results does not take into consideration the population-specific nature of the *TBA*.

A limitation related to our data analysis, specifically the independent variable, *year of post-secondary enrollment*, is that recent TR graduates were not considered. *Although* students in their final year of academic study were involved, the scope of this study did not include students who had recently graduated from a TR college or university program. Upon reflection, after analyzing the data and reviewing the results, this may be considered a possible limitation of the study because analyzing a student's ability to evaluate an assessment at the conclusion of their academic career would provide for a more accurate evaluation of their knowledge and skills prior to entering the field. In other words, these results would reflect a true understanding of the observation competency of college and university students upon exiting their respective programs, providing a representation of the current state of the TR college and university curricula in Ontario.

A structural limitation, related to the *Demographic Information Form* utilized in this study, would be to use a single numerical value as the parameter to determine the age of the participants, instead of using age brackets. This would have made it possible to calculate the mean age of participants, thus providing a better representation of the population under study.

Lastly, a possible limitation would be the reliability of using a videotaped client-therapist scenario as a medium through which the students observed and scored a client's functional ability. In greater detail, the use of video does not provide "an indication of the assessor's ability to administer and score the test in a clinical situation... This is particularly important for a test that involves *direct observation* [italics added] of performance rather than being scored from videotaped assessments" (Russell et al., 1994,

p. 635). Since these individuals will ultimately be observing clients directly in the field, this is an important consideration to be made concerning the reliability of the student assessment scores to the real-world application of their client observational skills.

Implications for Teaching TR Observation Skills

Currently in Canada, there is not a minimum educational criteria required to practice TR, thus TR university and college programs do not follow a standardized curriculum. The findings in this study support this statement by providing evidence of significant differences in the observational knowledge and skills taught to, and retained by, students within TR programs in Canada. In the United States there is an existing national certification program, *NCTRC*; now Canada is moving in a similar direction, as the *Canadian Therapeutic Recreation Association (CTRA)* is in the process of developing a national certification program for TR professionals practicing in Canada. As a part of this development, establishing baseline educational requirements for TRS's to practice in the field are needed to move this process forward (Marchildon, 2006). The results from the current study can inform curriculum developers of the current diversity amongst the knowledge and skills of students, specific to observing client behaviours, enrolled in TR programs in post-secondary institutions across Ontario.

Recommendations

A recommendation for future research would be to carry out this study again after revisions are made to enhance the number of college students participating in this study.

Another recommendation for future research would be to analyze the content of the TR courses offered in the college and university programs involved in this study. Specifically, analyzing the content of the mandatory course offerings at these schools,

especially those courses related to client observation and the assessment process.

Important questions to guide this study could be: 1) What were the similarities/differences and strengths/weaknesses of the client observation course content? 2) What should be the baseline client observation knowledge and skills of TRS's upon entering the field? and 3) Do these institutions meet this baseline criteria?

Marchildon's (2006) findings suggest that revising the courses and devising the curriculum to reflect the competencies demonstrated by TRS's in the field would strengthen the skills of our entry-level practitioners.

In addition to these studies, another study could be to expand the parameters of the current study to include participants from outside of Ontario, and across North America. In particular, looking at TR college and university students across Canada, upon graduation/fulfillment of their diploma or degree requirements, and prior to entering the profession, focusing on their ability to observe client behaviours. Broadening the scope even further, another study could investigate the differences between TR post-secondary students in Canada and the United States, upon graduation/fulfillment of their diploma or degree requirements, and prior to entering the profession, focusing on their ability to observe client behaviours. Conducting the former study would provide an accurate representation of the TR curricula, related to client observation, within Canada. Conducting the latter study would provide an accurate representation of the TR Curricula across North America, specifically to determine the similarities and differences in the client observation knowledge and skill-set of Canadian versus American entry-level practitioners.

Furthermore, it would be interesting to compare the assessment scores of TR college and university students upon graduation, and to test and re-test these same individuals as they advance throughout their careers, to determine if there are any significant differences amongst scores as a result of practical experience.

As the current study attempted to investigate the relationship amongst student characteristics on acquiring the observation competency necessary to conduct a TR assessment, the findings from this study leave one to contemplate: What can we do to improve the knowledge and skills to observe client behaviours in entry-level TR practitioners? According to Marchildon (2006), *curriculum* and *fieldwork* are two of the areas in the Canadian TR curriculum that are in need of improvement. Specifically, the quantity and quality of the TR courses require improvement. As a range of TR courses are offered from one institution to the next, offering more mandatory courses as part of the curricula, inclusive of courses focusing on observing client behaviours, would better prepare students upon entering the field. Also, revising the courses to reflect the competencies demonstrated by TRS's in the field would better prepare students for practice (Marchildon). In addition, having mandatory TR fieldwork placements as part of the different TR programs, followed by a mandatory TR internship in the final semester of these programs, would broaden the experiences of students with different populations across varying settings, prior to entering the field as a professional (Marchildon). Marchildon's findings shed light on the different areas of the TR curricula that require the attention of curriculum developers, to produce programs to ensure competent professionals upon graduation from post-secondary institutions in Canada. As this relates

to the findings of the current study, it would be important to ensure that greater emphasis is placed on client observation and assessment within the TR curricula.

Final Thoughts

As a previous undergraduate student, once enrolled in a four-year TR university degree program, who completed an internship supervised by a CTRS, followed by sitting for the NCTRC examination and receiving the CTRS designation, I am passionate about pursuing research that enhances the competencies of students prior to entering the field as a practitioner. As I was once a student enrolled in a program with a transitioning and evolving curriculum, I can recognize the importance of building a skill-set that will instill confidence in the abilities of individuals upon entering and practicing in the field of TR. Through my research I recognize the need to focus on modifying and advancing the TR curriculum to better align with the needs of students and their future clients.

As assessment is at the foundation of the TR process, with observing client behaviours being an essential tool of the assessment phase, observation plays a significant role as to how the TR process unfolds. Therefore, within the undergraduate curriculum, instructing students on how to observe and accurately record client behaviours is essential to their training prior to entering the field (Coco-Ripp, 2010). As educators prepare their students for practice in the real world, bridging the gap between their conceptual knowledge and practical application of skills should enhance their confidence and the accuracy of their performance.

As part of the TR curriculum, offering fieldwork opportunities to practice and enhance the skills used in client observation is beneficial for students, although these field opportunities are limited due to program time constraints and resources. Therefore,

it is important to focus on teaching client observation skills within the classroom as well, but it is unclear as to the best practices for developing observational skills within the classroom setting (Coco-Ripp, 2010). Furthermore, by placing adequate focus on the teaching of observation skills within the classroom will enhance the learning opportunities for students during field placements (Coco-Ripp).

I believe that by introducing and reviewing the tool of client observation, and providing opportunities for its practice, throughout the span of an entire TR program, will better instill the teachings of observation within students. A way that may prove to be beneficial within the classroom, would be to provide opportunity for the development and practical application of observation skills through use of video, similar to the design used within my study. This will enable students to observe a client followed by recording their observations, in which would later be reviewed by the instructor. Repetition of this process should prove beneficial to improving the observation skills of students. Also, providing video footage of client-therapist assessments using different client population groups would be beneficial to create versatility in the ability of students to accurately observe clients across a variety of contexts.

In conclusion, although a small contribution to the field, this study provides significant findings for a movement toward standardizing the curriculum to ensure a baseline is developed and implemented for client observation knowledge and skill-set amongst all entry-level practitioners, thus optimizing the quality of care of clients within the field of TR. As mentioned, further steps can be taken to strengthen the implications of this study.

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APPENDICES

Appendix A

Letter of Invitation/Telephone Script for Students

Therapeutic recreation students, I would like to invite you to participate in a research project that could have implication for future educational practices for students and practitioners in therapeutic recreation. This study is trying to find what variables may contribute to when therapeutic recreation students and practitioners acquire the basic observation skills needed to do an assessment and create treatment objectives from that assessment. The study is entitled “Timeline for acquiring basic observation skills for the assessment and planning components of the therapeutic recreation process.” The purpose of this research project is to analyze the results from each participant's completed assessment in terms of looking at what factors contribute to the gaining of the basic skill set required to perform a therapeutic recreation assessment. The expected duration for the subject's participation will be 30-40 minutes.

If you would like to participate I can have demographics packets sent to your facility (5-10 minutes to complete). If you would bring that along with you to room (to be determined by the TRS Faculty) at XXXX a.m/p.m (time again to be determined by college/university) you will then be asked to view an 7 minute video and fill out an assessment (20-30 minutes).

I do hope you will participate. An added incentive is the opportunity to be in a drawing for a \$500.00 gift certificate. If you have any questions please contact me, Dr. Suzie Lane at (905) 688-5550 Ext. 4560 or email slane@brocku.ca.

What will Happen:

Will be asked to fill out Demographic Sheet

Consent form

Watch 7-minute video of interview

Complete an assessment from interview

You will be shown a 7-minute interview of a recreation therapist and client. Please watch the video carefully. After observing the video please go through and complete the Tracking Behaviour Assessment along with developing a goal and objective for the treatment of this client. Thank you for your assistance with this study.

Appendix B

Consent Form

INFORMED CONSENT

Date: August 27, 2010

Project Title: Timeline for acquiring basic observation skills for the assessment and planning components of the therapeutic recreation process.

Principal Investigator:
Dr. Suzie Lane, CTRS
Department of Recreation and Leisure
Brock University
(905)688-5550 Ext.4560; slane@brocku.ca

INVITATION

You are invited to participate in a research study which has been approved by Research Ethics Board at Brock University (file# 09-182). The purpose of this research project is to analyze when and what factors that contribute to the gaining of the basic skill set required to perform a therapeutic recreation assessment and plan objectives from that assessment.

WHAT'S INVOLVED

As a participant, you will be asked to watch a video of an interview in therapeutic recreation. You will then be asked to rate an assessment and come up with goals and objectives for the client. Along with this will be a demographic sheet which will allow us to look at age, education, experience. Participation will take approximately 30-45 minutes of your time.

POTENTIAL BENEFITS AND RISKS

Possible benefits of participation include the contribution of knowledge to the direction of students studying therapeutic recreation. As a participant, you have the option to be involved in a \$500 drawing by filling out a ticket and putting it in the designated drop box. There are no known or anticipated risks associated with participation in this study.

CONFIDENTIALITY

This information you provide will be kept confidential. Your name will not appear in this study or any thesis or reports resulting from this study.

VOLUNTARY PARTICIPATION

Participation in this study is voluntary. If you wish, you may decline to answer any questions or participate in any component of the study. Further, you may decide to withdraw from this study at any time and may do so without any penalty or loss of benefits to which you are entitled. However since data is anonymous, participants cannot withdraw once questionnaires are given to researchers.

PUBLICATION OF RESULTS

Results of this study will be presented as part of an honours thesis study/faculty research. Information gathered will be written for a publication along with possible presentation regarding the timeline and possible independent variables which influence the timeline of the basic skill set needed to do an assessment and planning in therapeutic recreation. Feedback about this study will be available by emailing slane@brocku.ca. After the project is complete, the data collected will be shredded.

CONTACT INFORMATION AND ETHICS CLEARANCE

If you have any questions about this study or require further information, please contact the Principal Investigator or the Principal Student Investigator using the contact information provided above. This study has been reviewed and received ethics clearance through the Research Ethics Board at Brock University (File #09-182). If you have any comments or concerns about your rights as a research participant, please contact the Research Ethics Office at (905)688-5550 Ext. 3035, reb@brocku.ca.

Thank you for your assistance in this project. Please keep a copy of this form in your records.

CONSENT FORM

I agree to participate in this study described above. I have made this decision based on the information I have read in the Information-Consent Letter. I have had the opportunity to receive any additional details I wanted about the study and understand that I may ask questions in the future. I understand that I may only withdraw my consent prior to completion of my questionnaire. This is due to information being anonymous and researchers would be unable to locate my particular information.

As a participant, I have the option to be involved in a \$500 drawing by filling out a ticket and putting it in the designated drop box after the completion of my questionnaire.

Name: _____

Signature: _____

Date: _____

Appendix C

*Demographic Information Form***Demographics Sheet**

The purpose of this research project is to analyze when and what factors contribute to the gaining of the basic skill set required to perform a therapeutic recreation assessment and plan objectives and goals from that assessment. For the following items, please select the *one* response that is most descriptive of you or fill in the blank as appropriate.

1. Gender:

- Female
- Male

2. Age:

- Under 20
- 21-23
- 24-27
- 28-31
- 31-40
- 41-50
- 51-60
- Over 60

3. Are you currently enrolled as a student in a College or University?

- Yes
- No

If you answered yes, what year are you currently in:

- Second year
- Third year
- Fourth year

4. Which College or University are you enrolled or did you graduate?

- Brock University
- Niagara College
- Mohawk College
- Waterloo University
- Other:

5. How many Therapeutic Recreation courses have you completed:

- One
- Two

- Three
- Four
- Five
- Six or more

6. Have you completed any other Degrees or Diplomas other than Therapeutic Recreation?

- No
- Yes, please specify:

Professional Experience in TR

7. How many years have you worked in therapeutic recreation?

- 0-1 years
- 1-2 years
- 2-3 years
- 3-4 years
- 5 years or more

If applicable, what type of work experience was it?

- Practicum (School placement)
- Part time job (10-20 hours a week)
- Full time job
- Other, please specify:

8. Which of the following populations have you had experience with?

Please check boxes which apply to you.

- Rehabilitation (Cerebral Palsy, Spina Bifida, Spinal Cord Injuries)
- Mental Health/Addictions
- Developmental Disabilities
- Autism
- Dementia/Alzheimer's
- Geriatrics/Elderly
- Children and Youth/Pediatrics
- Traumatic Brain Injuries
- Community
- Other, please specify:

Continuing Education

9. How many times have you attended Therapeutic Recreation Ontario (TRO) or any other Therapeutic Recreation specific conference/workshop within the last 3 years?

- 0
- 1
- 2
- 3 or more

Credentials**10. Are you a member of Therapeutic Recreation Ontario (TRO)?**

- Yes
- No

11. Are you a Certified Therapeutic Recreation Specialist (CTRS)?

- Yes
- No

Appendix D

*Tracking Behavioural Assessment (TBA)***EMOTIONAL**

Frustration Tolerance	
5	No appearance of frustration with new activities
4	Occasionally frustrated with new task
3	Occasionally frustrated with complex task
2	Participates, yet appears to be frustrated during activity
1	Unable to participate or refuses due to frustration with simple tasks

Affect	
5	Congruent with situation
4	Animated (exaggerated expression)
3	Labile
2	Flat, blunted
1	Not congruent with situation

Self Esteem	
5	Identifies positive attributes
4	Realistic view of self
3	Unrealistic view of self
2	Ambivalent (doesn't seem to care)
1	Negative self-statements

Attitude	
5	Motivated
4	Indifferent toward treatment
3	Hesitant, yet cooperative
2	Resistive
1	Will not cooperate

PHYSICAL

Ambulation	
5	No difficulty with ambulation
4	Requires min assistance for ambulation
3	Requires mod assistance for ambulation
2	Requires max assistance for ambulation
1	Requires total assistance for ambulation

Coordination (fine motor)	
5	Requires no assistance
4	Requires min assistance L/R
3	Requires mod assistance L/R
2	Requires max assistance L/R
1	Requires total assistance L/R

Endurance with completion of leisure task	
5	Completed leisure task greater than 11 min.
4	Completed leisure task 6 – 10 min.
3	Completed leisure task 4 – 5 min.
2	Completed leisure task 2 – 3 min.
1	Completed leisure task 0 – 1 min.

Balance	
5	No difficulty with balance
4	Requires min assistance for balance
3	Requires mod assistance for balance
2	Requires max assistance for balance
1	Requires total assistance for balance

Coordination (gross motor)	
5	Independent with UE/LE
4	Requires min assistance for UE/LE
3	Requires mod assistance for UE/LE
2	Requires max assistance for UE/LE
1	Requires total assistance for UE/LE

COGNITIVE FUNCTIONING

Orientation	
5	Aware in all areas
4	Aware in three areas (specify)
3	Aware in two areas (specify)
2	Aware in one area (specify)
1	Not aware in areas (time, place, situation, person)

Decision Making	
5	Able to make own decision
4	Given two choices, can make decision
3	Given one choice, can make decision
2	Will make decisions, but looks for supports from staff/peers
1	Unable to make decisions or refuses

Concentration/Attention Span	
5	Able to concentrate 30 – 40 minutes
4	Able to concentrate 20 – 30 minutes
3	Able to concentrate 6 – 19 minutes
2	Able to concentrate 2 – 5 minutes
1	Able to concentrate 0 – 1 minutes

Memory	
5	Good recall
4	Recalls 5 items
3	Recalls 3 to 4 items
2	Recalls 1 to 2 items
1	No recall

Follows Directions	
5	Able to follow directions without difficulty
4	Able to follow three step directions (with/without cue)
3	Able to follow two step directions (with/without cue)
2	Able to follow one-step directions (with/without cue)
1	Unable to follow any directions

LEISURE LIFE STYLE

Participation	
5	Self-initiating in structured activities
4	Actively participates after encouragement
3	Attends after encouragement, and does engage in activity
2	Attends after encouragement, but does not engage in activity
1	Refuses to attend

Coping Skills and Adaptations	
5	Effectively uses coping skills
4	Has knowledge of healthy coping skills
3	Uses unhealthy coping skills
2	Current coping skills ineffective at this time
1	Has no coping skills

Leisure Pursuits		
Past	Present	
5	5	Has a variety of interests (active/passive)
4	4	Has interest in 2-3 leisure pursuits
3	3	Has knowledge/interest with one pursuit
2	2	Lacks skills or knowledge of available pursuits
1	1	Participates in unhealthy pursuit

SOCIALIZATION

Dyadic Interaction	
5	Initiates and maintains dyadic interaction
4	Responds to and maintains interactions when initiated by others
3	Responds minimally; does not contribute new content or questions
2	Responds to interactions
1	Does not respond in dyadic interactions

Social Interest	
5	Seeks social contacts/situations
4	Initiates social contacts when in presence of others
3	Doesn't initiate but doesn't avoid social contacts/situations
2	Exhibits excessive need for social contact
1	Avoids social contacts/situations

Appendix E

Script for Video Viewing

We would like to welcome you here and appreciate your time with this project. In front of you is an envelope that has a number on it. I would ask that you put that number on your demographic Form, which you brought with you. Please place that, and your consent form, in the envelope. Now, take out the blue form from within your envelope, which is the Tracking Behavioural Assessment, and place that same number on it.

I would ask that you watch the 10-minute video, listen to the questions the therapist asks, the response from the client, and the client's behaviours. After the video has finished please take the Tracking Behavioural Assessment and fill it out completely. Upon completing the assessment, please put it back into your envelope.

You will also find a ticket within your envelope. If you'd like to be involved in a draw for a \$500.00 gift certificate, please fill out the ticket and place it in the specified drop box.