An Exploratory Study of the Therapeutic Alliance and Client Outcomes in a Voluntary Counselling Agency

by

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B.Sc., McGill University, 2005

A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of

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Abstract

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Dyadic data analysis methods are underutilized in child and youth care, where much of the practice relies on relationships with individuals and groups. In this exploratory study, a dyadic data analysis approach was used to study the interdependence amongst client-counsellor dyads in a voluntary counselling setting. Ten counsellors and thirty-six clients from a Canadian voluntary counselling agency participated in this study. Counselling sessions ranged from two to 20 sessions. Clients completed a session rating scale, a measure of the therapeutic alliance. In addition, clients and counsellors completed an outcome rating scale and personal change questions. A one-with-many design was used to explore the similarity between client-counsellor dyads, the degree of consensus, assimilation, and uniqueness as well as the level of reciprocity for perceived client well-being. Multi-level modeling was used to partition the variance on the outcome rating scale to account for sources of non-independence in client-counsellor dyads, and the indirect relationships between multiple clients working with the same counsellor.

Implications of the study and recommendations for future research are discussed.

Keywords: dyadic data analysis, voluntary counselling, therapeutic alliance, client outcome
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Introduction

Being a former practicum student at Greater Victoria Citizens’ Counselling Centre (GVCCC), I was trained to use brief therapy tools developed by Duncan and Miller (2000). These tools, the Outcome Rating Scale (ORS) and the Session Rating Scale (SRS), are ultra-brief measures used to facilitate discussion of the alliance and client functioning in counselling sessions. The ORS measures client functioning, and the SRS measures the therapeutic alliance. Using these tools helped me to know when to tailor my approach to match individual client needs by inviting the client to provide feedback in a formalized way. The ORS and SRS can also be used as a needs-assessment, research or evaluation tool for voluntary counselling agencies.

Greater Victoria Citizens’ Counselling Centre (GVCCC) is a non-profit agency that relies on trained volunteer counsellors, practicum students, and paid supervisors to deliver services primarily to Greater Victoria residents. GVCCC was interested in evaluating their counselling services, and wanted to explore whether the ORS and SRS tools would be good measures to implement across the organization. In discussions with the executive director of GVCCC, I proposed examining the ORS and SRS scores as they are indirect measures of client well-being and the therapeutic alliance. She supported the study and facilitated the recruitment of participants by publishing my research participation advertisement in the monthly newsletter. I also recruited participants at orientation sessions and peer supervision meetings.

GVCCC provides generic counselling services to adults with mental health issues. The counselling centre offers individual, couple and group counselling services focusing on a range of issues such as relationship concerns, depression, conflict, anger, stress, and anxiety. The most common presenting concern self-reported by clients at the GVCCC were relationship and/or communication issues. From April 2010-2011, Citizens’ Counselling Centre saw 1,028 clients
and offered approximately 10,000 hours of service. There were 95 active counsellors at any
given time and 19 practicum students (GVCCC, 2011).

GVCCC has a counsellor training program led by qualified and experienced supervisors.
All paraprofessional counsellors at GVCCC have a minimum of 160 hours of training, and are
required to practice a minimum of 250 hours at the Centre. Weekly individual supervision
sessions are in place, and clients are matched to counsellors based on presenting concerns and
any client preferences for counsellor characteristics such as gender. Almost all of the counsellors
who participated in the study were already using the ORS and SRS measures prior to
participating in the study, and were trained on the use of the outcome rating scale (ORS) and
session rating scale (SRS). The counsellors in my study had all completed over 160 hours of
training and some were counselling practicum students.

The Context of Voluntary Counselling

The literature about voluntary counselling is sparse and primarily comes out of the UK.
Questions in the literature tend to focus on descriptions of the voluntary counselling sector, the
quality and depth of voluntary training, the type of clients seen by voluntary counsellors, and its
effectiveness.

Previous studies on voluntary counselling agencies found that voluntary counsellors are
trained and experienced (Bondi, Fewell & Kirkwood, 2003; Moore, 2006). For example, Bondi,
Fewell, Kirkwood and Arnason (2003) surveyed 2,140 voluntary counsellors in Scotland. They
found that 31 percent of voluntary sector counsellors had completed at least 400 hours of
training, 33 percent had completed 120 to 300 hours, and 26 percent had completed between 60
and 110 hours of training. In Moore’s (2006) study of forty-six counsellors at the Leicester
Counselling Centre, two-thirds were working towards a diploma or higher degree in counselling, and the majority had more than one year of experience counselling.

Studies in the UK have shown that voluntary sector counsellors see clients with similar severity/complexity and length of problems as National Health Service psychiatric patients (Gardiner, McLeod, Hill & Wigglesworth, 2003; Moore, 2006; Winter, Archer, Spearman, Costella, Quaite, & Metcalfe, 2003), and are just as qualified and experienced as National Health Service counsellors (Moore, 2006). Bondi, Fewell and Kirkwood (2003) surveyed 204 voluntary counselling agencies, and concluded that voluntary agencies contributed to the availability and accessibility of counselling services in Scotland.

Voluntary counsellors are often referred to as “paraprofessional” counsellors in the North American literature. In the late 1970’s, several meta-reviews and meta-analyses were conducted comparing the effectiveness of paraprofessionals and professionals. Durlak’s (1979) meta-review of 42 comparative studies suggested that paraprofessionals were just as effective as professionals. Critics were concerned that Durlak misclassified groups, compared different samples, and that the studies included in his review lacked methodological rigor. Researchers made improvements to Durlak’s meta-review by using stricter classification systems, weighting studies based on sample size, and calculating effect sizes. However, they found similar results to Durlak (Hattie, Sharpley & Rogers, 1984; Nietzel & Fisher, 1981). The reasons that paraprofessionals are just as effective as professionals remains unclear. It could be because paraprofessionals are less susceptible to burnout (Frank, 1979) so they are better able to be authentic and present with clients or because clients seeing paraprofessionals are more likely to attribute their improvements to themselves (Bohart, Arthur & Tallman, 1999).
Paraprofessional counselling and studies of its effectiveness are relevant to child and youth care (CYC) practice because CYC workers are in a sense paraprofessional counsellors since they have not completed formal training in psychotherapy. In addition, CYC workers’ practices have expanded from working primarily in residential or institutional settings to delivering a broad range of services and programs in various settings including the area of voluntary counselling (Denholm, Ferguson & Pence, 1987). Studies of CYC workers in the area of voluntary counselling are limited.

Studying paraprofessional effectiveness in a voluntary counselling agency can be challenging, because of the lack of time, energy, resources, funding and lack of control groups. However, using practice-based evidence and incorporating outcome measurement into voluntary counselling agencies can be helpful. In a climate of cut-backs to social services, voluntary agencies are often asked by funders to demonstrate that their services are effective. Even so, few Canadian studies have examined voluntary counsellors and client outcomes.

A further issue of context has to do with the impact and usefulness of volunteer counselling. In Canada, the impact of voluntary counselling agencies on society is not well-documented; however, voluntary counselling agencies may provide similar benefits to those reported in the UK. Voluntary counselling agencies could offer a way to increase the availability and accessibility of mental health services in Canada by spreading mental health resources and capacity in the community.

Voluntary counselling services may be beneficial to Canadians for a variety reasons: (1) voluntary counselling agencies offer services that are socially inclusive (e.g. clients do not require a diagnosis to receive treatment and can avoid being labelled), (2) becoming a trained counsellor may provide a sense of citizenship and belonging because citizens are learning useful
and transferable skills and are volunteering their time to help others in their community, and (3) voluntary counselling services are a community-based mental health alternative with the potential to address current psychiatric service wait times. For example, Kowalewski, McLennan and McGrath (2011) surveyed Canadian child and youth mental health service agencies and found that wait times were longer than the Canadian Psychiatric Association’s (CPA) benchmark wait times. Only 31.4% (n=116) of child and adolescent mental health agencies reported “mostly” or “always” being able to meet CPA wait time standards for scheduled psychiatric services (Kowalewski et. al., 2011).

**Research strategy**

A dyad refers to a pair of people, such as parent-child, a married couple, siblings or client-worker relationships. Dyadic data analysis can be conducted on data where both members of the dyad are measured on the same set of variables (Kenny, Kashy, Cook, 2006). In this study, the dyad of interest is the client-counsellor pair, and dyadic data analysis was used to study the interdependence in the client-counsellor relationship. Interdependence in a relationship refers to when “one person’s emotion, cognition or behaviour affects someone else’s emotion, cognition or behaviour” (Kelley & Thibaut, 1978, as cited in Cook & Kenny, 2005, p. 101). Therefore, scores from each dyad member on a measure such as perceived client well-being are likely correlated. When scores between dyad members are linked (or correlated) they are no longer independent observations. Common statistical techniques such as ANOVA or multiple regression assume independent observations. Consequently, violating non-independence assumptions is problematic because the scores are treated as independent observations, rendering test statistics, degrees of freedom, and significance tests inaccurate (Kenny, Kashy & Cook, 2006). Kenny, Kashy and Cook (2006) stress that independent replication is a major tenet in
statistical analysis and that the exact number of replications of phenomenon needs to be known for valid statistical inference.

Statistically, one form of interdependence is scores on a particular measure from two people who are connected in such a way that their scores are influenced by each other. Most statistical approaches in counselling research tend to focus on individual responses without accounting for the connection to others’ response. Because clients and counsellors are connected and clients of the same counsellor are indirectly connected, analytical approaches to studying the interdependence in dyads should be incorporated when conducting psychotherapy research (Marcus, Kashy & Baldwin, 2009).

For example, client outcome is typically studied using only the client’s perspective or the counsellor’s perspective. Studies looking at the relationship from one perspective (e.g. the clients or the counsellors) can miss important information about the relationship such as the individual and shared contributions to the relationship. Formerly, studies of counsellor-client relationships tended to ignore statistical assumptions of non-independence or tried to avoid non-independence by completing separate analyses.

Experts in the area of dyadic data analysis such as Kenny, Kashy and Cook (2006) treat the dyad rather than the individual as the unit of analysis when there is non-independence. Analytic strategies range from combining the scores of dyad members to treating the individual as nested within the dyad. By studying individual contributions rather than the interdependence between partners in a dyad, many researchers are ignoring the influences that an individual has on his or her own outcome (e.g. actor effect), and the outcome of the other member (e.g. partner effect) (Kenny, Kashy & Cook, 2006).
Dyadic data analysis strategies can be applied to psychotherapy outcome research to examine individual and shared contributions to client outcomes. A growing body of research called “empirically supported principles of practice” examines the principles of change and associated outcomes across a variety of conditions and practices. Duncan and Miller’s brief therapy tools can be incorporated into counselling sessions, and can facilitate a discussion of changes in the therapeutic alliance and client outcomes.

Although Duncan and Miller’s outcome rating scale (ORS) and session rating scale (SRS) only measure well-being and the therapeutic alliance across four dimensions, these measures have a high degree of clinical utility for evaluating outcome based on more than one presenting concern (Campbell & Hemsley, 2009). The ORS and SRS can be adapted for various organizational needs, and measures client well-being and aspects of the therapeutic alliance. The rate of compliance was much higher with these ultra-brief measures than when more research-oriented measures were utilized. “Compliance is a significant consideration in real-world research, which is required to establish an evidence base for the effectiveness, as opposed to simple efficacy of therapeutic activity” (Campbell & Hemsley, 2009, p. 8).

The measures in my study were chosen primarily because they were already being used by many of the counsellors. All of the counsellors in my study were trained to use the ORS and SRS and many were already using these tools in their counselling sessions. This provided an opportunity to analyze practice using available data. Moreover, effectiveness studies tend to focus on comparing paraprofessional and professional effectiveness rather than looking at the combined effectiveness of paraprofessionals and professionals working in a voluntary counselling setting. The counselling centre in this study has a mix of paraprofessionals and professionals providing an opportunity to study the effects of both together.
**Study objectives**

In this study, the objectives were three-fold: (1) to provide an evaluation strategy to Citizens’ Counselling Centre, (2) to account for the interdependence in client outcome from the perspective of clients and counsellors, and (3) to describe the statistical association between the therapeutic alliance and client outcome. The research questions described in the Methodology address two and three.

This first overall objective involves describing the results of the outcome rating (ORS) and session rating (SRS) scores. This was done by summarizing the descriptive data, and calculating measures of central tendency and dispersion.

The second objective of modeling the interdependence in client outcome involved partitioning client-rated and counsellor-rated ORS scores. To do this, I analyzed the level of assimilation, consensus, uniqueness and reciprocity amongst clients and counsellors. Having both perspectives on the measure allowed for the estimation of both individual and dyadic factors by partitioning out perceiver effects, partner effects, relationship effects as well as the level of reciprocity (Cook & Kenny, 2005; Marcus, Baldwin & Kashy, 2009).

Reciprocity refers to whether a person responds in the same way that his/her partner responds to him or her. Some would say reciprocity is defined as “tit-for-tat” behaviour. Therefore, if a person responds in the opposite manner, this is considered compensation rather than reciprocity (Kenny, Kashy & Cook, 2006). From a statistical perspective, reciprocity is defined as the correlation between components of a variable in a dyadic model.

The third objective involved calculating the alliance-outcome correlation. This was done because previous studies have shown that the therapeutic alliance accounts for up to 35% of the
variance in client outcome, even after controlling for original levels of distress (Gaston, Marmar, Gallagher, & Thompson, 1989).

Dyadic approaches have applications for child and youth care research and practice because child and youth care work tends to take place in groups or dyads. For example, a one-with-many design can be used to study child and youth care workers and multiple clients. In my study, I explored the relationship between the therapeutic alliance and client outcomes amongst voluntary counsellors.

Overview of this thesis

In the next chapter, I review the literature on paraprofessionals working in the voluntary counselling sector, which includes a description of why child and youth care workers can be considered paraprofessionals. Next, I discuss evaluation studies and measures for the therapeutic alliance and client outcomes. Finally, I discuss analytic strategies used to account for non-independence in counselling relationships. Three more chapters follow the literature review, which include a description of the method and study design, a presentation of the results, and a discussion of the implications of this study.
Literature Review

In this literature review I begin with a discussion of therapeutic relationships in child and youth care practice. I make the connection between child and youth care workers and paraprofessional counsellors in the area of counselling. I briefly discuss paraprofessional counselling effectiveness, and move on to reviewing the literature on the voluntary counselling sector, including evaluation studies. Next, the therapeutic alliance and client outcomes are discussed in terms of how they have been defined and measured. I also discuss the relationship between alliance and outcome in counselling research.

In the latter sections of this literature review I focus on analytic approaches to studying interdependence from a quantitative perspective. I discuss how to measure non-independence and ways to study dyad variability. Finally, dyadic data analysis approaches in alliance-outcome psychotherapy research are discussed.

Therapeutic Relationships in Child and Youth Care Practice

Relationships play a central part in counselling (Levitt, Butler & Hill, 2006) as well as in child and youth care (CYC) practice. CYC practitioners often work in counselling roles, and use counselling skills to focus on facilitating personal growth, development and the learning of life skills (Anglin, 1999). Anglin describes CYC’s uniqueness in terms of five elements: (1) the growth and development of the child and/or youth, (2) the totality of a child’s functioning, (3) the tendency to come from a social competence perspective, (4) being involved in direct care work, and (5) the development of therapeutic relationships with children, their families and other helpers.

The latter is particularly relevant to this thesis. Child and youth care workers’ practices have expanded from working primarily in residential or institutional settings to delivering a
broad range of services and programs in various settings including the area of voluntary
counselling (Denholm, Ferguson & Pence, 1987). In these services and programs, many child
and youth care workers draw upon their counselling skills when working with children, youth
and families and use these skills to build therapeutic alliances with clients. Child and youth care
workers can be considered paraprofessional counsellors, because they have some counselling
training but most have not completed formal professional training in psychotherapy or
counselling psychology. Nevertheless, child and youth care workers can think of themselves as
informal counsellors, since they try to maximize the therapeutic benefits of experiences for
children and youth in a variety of settings (Rayment, 2006).

There is limited research on the effectiveness of child and youth care workers in settings
such as voluntary counselling agencies. According to Rayment (2006), “current outcome
research reconfirms the potential benefit of quality child and youth care practice” (p. 87).
Rayment relates counselling outcomes literature on the factors that influence therapeutic change
to CYC practice. Assay and Lambert (1999) have described four main categories of factors that
influence therapeutic changes: 40% extra-therapeutic effects, 30% common factors in the
therapeutic relationship, 15% therapeutic techniques, and 15% placebo.

Rayment (2006) provides a compelling argument that child and youth care workers tend to
work in “the other 23 hours” with children and youth and, therefore, have opportunities to
influence change in extra-therapeutic factors in addition to developing therapeutic relationships
with children and youth. Others have made the same point such as Fritz Redl, a psychotherapist
and an advocate for everyday kind of care, and Trieschman, Whittaker and Brendtro (1969) who
wrote a book called “The Other 23 hours: Child-Care Work with Emotionally Disturbed
Children in a Therapeutic Milieu”.
From a psychotherapy outcome perspective, CYC workers have the opportunity to influence 70% of the change in outcomes for children and youth. This is an attractive argument in a position paper, but CYC worker’s effectiveness has not been studied extensively using well-controlled studies or meta-analytic reviews. The closest research we have about counselling effectiveness is research on paraprofessional counselling effectiveness. In the next section, I discuss paraprofessional counselling effectiveness when compared with professional counselling effectiveness, including some of the methodological challenges in these studies.

**Paraprofessional Counselling Effectiveness**

Paraprofessional counsellors are typically defined as counsellors working in the counselling field who are not licensed professional counsellors, but are working under the supervision of licensed counsellors. There is a large body of literature that discusses the comparative effectiveness of paraprofessional and professionals, and many studies support the view that paraprofessionals are just as effective as professionals.

Some researchers have found that paraprofessionals can achieve clinical outcomes equal to or significantly better than those obtained by professionals (Atkins & Christensen, 2001; Berman & Norton, 1985; Christensen & Jacobsen, 1994; Durlak, 1979; Faust & Zlotnick, 1995; Hattie, Sharpley & Rogers, 1984; Karlsruher, 1974; Nietzel & Fisher, 1981; Stein & Lambert, 1984, 1995). Several explanations have been suggested to explain these findings. One is that the effectiveness of therapy is derived from non-specific factors rather than the implementation of theory or techniques. Others suggest that paraprofessionals are less likely to suffer from burnout and that paraprofessionals are more likely to experiment with different approaches (Frank, 1973).

Durlak (1979) was the first to conduct a meta-review of studies comparing the effectiveness of paraprofessionals and professionals. Durlak’s definition of paraprofessional was
“persons who had not received formal post-baccalaureate clinical training in psychological, psychiatric nursing or social work programs” (p. 82). General practitioners, speech and language pathologists, nurses and occupational therapists were classified as paraprofessionals in Durlak’s meta-analysis. Durlak used Luborsky’s methodological criteria for therapy outcome research, and graded studies based on how well the study satisfied the design criteria. Forty-two studies were included. Of these, 12 studies favoured paraprofessionals, 28 demonstrated no differences between groups, and two favoured professionals. The conclusion that paraprofessionals are just as effective as professionals proved to be controversial in the research and professional community, because there is a widely held belief that there are benefits to professional licensing.

Critics of Durlak’s review argue that he used inconsistent definitions of professional and paraprofessional as well as loose evaluation criteria in his meta-review. For example, Nietzel and Fisher (1981) argue that nurses and general practitioners should not be classified as paraprofessionals because they have already received full professional training in their respective professions. Nietzel and Fisher (1981) concluded that only 5 of the 42 studies in Durlak’s review showed evidence of paraprofessionals being more effective than professionals.

Critics also questioned the design and power of the 42 studies included in the review. Durlak’s review used a box-score method. The box-score method involves categorizing the results of each of the studies into 3 categories: (1) significantly favouring professionals (2) significantly favouring paraprofessionals or (3) neither. However, the box-score method simply categorized the studies rather than weighting the studies based on how well-controlled they were, their sample size, the power, and the relative importance of findings (Hattie, Sharpley & Rogers, 1984). These critiques are important because it suggests threats to the internal validity of Durlak’s meta-analysis and the soundness of conclusions drawn.
Hattie, Sharpley and Rogers (1984) re-reviewed the studies included in Durlak’s review and conducted a meta-analysis. Their meta-analysis was an improvement from Durlak’s method, because they calculated effect sizes so that studies were not excluded on *a priori* grounds and study results were not treated equally. Their analysis excluded three studies that were included in Durlak’s review leaving 39 studies to be compared as well as four recent studies that were not included in Durlak’s review. The effect sizes had an overall effect of 0.34, with a standard error of 0.10. After making comparisons they reported that, “clients who seek help from paraprofessionals are more likely to achieve resolution of their problem than those who consult professionals” (Hattie et al., 1994, p. 534).

Corroborating information was found in a systematic review of therapist effectiveness for anxiety and depressive symptoms conducted by Den Boer, Wiersma, Russo and van den Bosch (2005). Den Boer et al.’s meta-analyses included five studies reporting comparisons between paraprofessionals and professionals (n=106) and comparisons between paraprofessionals and control groups (n=220). There were no differences between paraprofessionals and professionals in success of therapy (standard mean difference=0.09, 95% CI -0.34 to 0.40, p=0.58). Den Boer et. al (2005) also found a significant effect for paraprofessionals compared to no treatment (OR=0.30, 95% CI 0.18 to 0.18, p<0.00001).

Similarly, a recent systematic review, which only included randomized controlled studies, found that paraprofessionals delivering cognitive-behavioural therapies for anxiety and depression were just as effective and able to achieve comparable outcomes to professionals (Montgomery, 2010). Faust and Zlotnick (1995) reviewed three major meta-analytic studies (totalling more than 100 comparative studies) and concluded that formal training does not predict successful therapy.
In contrast, another recent study by Armstrong (2010) found that paraprofessionals were less effective than professionals for several reasons: lack of training, lack of experience, less exposure to a range of presenting concerns, and minimal supervision. Suggestions for paraprofessional practice include longer training (e.g. initial training supplemented by ongoing training), and more careful selection and matching of clients to therapist levels of competence and experience.

Overall, the results of comparative effectiveness studies suggest that formal specialized training with a licensing credential may not necessarily make a therapist more effective. Common or non-specific factors in counselling may help to explain the finding that paraprofessionals are able to achieve similar outcomes. For example, the therapeutic alliance has been described in the literature as a common factor that accounts for up to 35% of the variance attributable to client outcome, even after controlling for original levels of distress (Gaston, Marmar, Gallagher, & Thompson, 1989). A common factor described in the literature is the therapist’s ability to develop a strong therapeutic alliance with their client. The therapeutic alliance can be defined as the “relational, emotional, and cognitive connection between the client and a therapist”(Karver et al., 2008, p. 16). The connection between client and therapist can include the bond, trust, feeling allied, and positive in the working relationship.

Further, researchers report that the therapeutic alliance consistently predicts outcome across therapeutic approaches (Horvath & Bedi, 2002; Horvath & Symonds, 1991; Martin et al., 2000). Studies have shown that there is no significant difference in client outcome between various treatments (Bohart, Arthur & Tallman, 1999). For example, a study of client-centered therapy, process-experiential therapy and cognitive therapy demonstrated equivalent results for clients affected by depression (Greenberg & Watson, 1998). Similarly, the Project MATCH
study found that three different treatments for alcoholism yielded comparable results (Project MATCH Group, 1997).

In general, studies of effectiveness have varied across types of helpers (e.g. ranging from peer counsellors to support group facilitators), client populations (e.g. marginalized or vulnerable groups), type and level of paraprofessional training, types of interventions and methods of evaluating effectiveness. There are also varying definitions for terms such as volunteer, lay, non-professional and paraprofessional.

The next section reviews studies on voluntary counselling. There are very few studies that have studied voluntary counsellors and client outcomes. Voluntary counsellors may be able to meet society’s needs for mental health services, and they may provide a cost-effective alternative for accessing mental health services yet there are not many published studies on Canadian voluntary counselling.

**Voluntary Counselling**

The voluntary counselling sector is distinct from the primary care sector. Counselling agencies in the voluntary sector are not-for-profit and counsellors are not usually paid by the agency for their services. The voluntary counselling sector has been described as a “loose and baggy monster” (Kendall & Knapp, 1995), because the structure, scale, and array of voluntary counselling organizations is so diverse. Voluntary sector organizations are diverse in terms of the way they are structured, the services offered, and their operations. Voluntary counselling agencies can vary from a handful of paid staff and volunteers to an agency made-up of only volunteers. Some voluntary agencies are made up of only paraprofessionals or may have a mix of paraprofessionals and professionals. Others consist of only lay counsellors that may require up to 300 hours of training prior to volunteering with the organization. Some voluntary agencies are
made up of peer volunteers, and others are made up of counsellors who have a considerable level of training and expertise in mental health counselling.

There are voluntary sector counselling agencies that offer generic services, and others that offer specialized services such as drug and alcohol, bereavement or crisis services. The services can be disseminated on an outreach basis, in homes, over the telephone or online, in-person and can follow a brief or longer-term counselling model. The diversity in terms of governance models, service structure, training and services provided, qualifications and type of staff as well as the organizational culture of voluntary counselling organizations are beyond the scope of this literature review.

According to Moore (2006), inadequate research into voluntary counselling agencies has resulted in a “misunderstood and underutilized” system. Moore’s research dispels the myth that voluntary counsellors are untrained or inexperienced, and argues that given the gap in supply and demand for mental health treatment in Britain, voluntary organizations are likely being underutilized due to a lack of understanding of the effectiveness of these services. Moore found that many voluntary counsellors have similar training and experience to professional counsellors. It is also quite common for professional counsellors to work in a private organization in addition to a voluntary counselling agency.

Moore (2006) compared the clinical outcome scores for clients of a voluntary counselling agency in Scotland with a database containing clinical outcome scores from National Health Service clients. She found that the voluntary counselling centre she studied provided comparable services to National Health Services in terms of severity and outcomes. Moore also found that the counsellors were trained and experienced. Two-thirds of the 46 counsellors that completed the questionnaire said that they were working towards a diploma or higher degree in counselling.
Only 5 of the 46 counsellors had less than one year’s experience in professionally supervised, psychotherapeutic counselling work. One counsellor had up to eight years of counselling experience (Moore, 2006).

Voluntary counselling impacts the social economy in many ways. It helps develop active communities by supporting the capacity of citizens to develop connections with others. More specifically, counsellor training teaches citizens a range of communication and interpersonal skills (Bondi, Fewell, Kirkwood & Arjan, 2003). Voluntary counselling is inclusive to a range of service-users, because it is often more affordable than professional counselling and tends not to label clients (Armstrong & Mcleod, 2003). Employing paraprofessionals may provide advantages in terms of cost, availability, and length of training (Montgomery, Kunik, Wilson, Stanley & Weiss, 2010).

Researchers in the UK report that voluntary counselling agencies carry out the work that many public and privately funded organizations are not currently offering (Moore, 2006), and that most counselling contacts are made through the voluntary sector (Armstrong & Mcleod, 2003). Moreover, the voluntary counselling sector’s independence from local government positions it well to contribute to preventative health care, community approaches to mental health, and to encourage adult education and community learning (Armstrong & Mcleod, 2003).

A Scottish study concluded that voluntary counselling makes a contribution to the availability and accessibility of counselling (Bondi, Fewell, Kirkwood and Arjan, 2003). These findings suggest that the work of voluntary counselling agencies perhaps merits more attention and increased access to public funding (Moore, 2006). While many studies support the view that voluntary counselling agencies are valuable, few Canadian studies have examined client outcomes within a voluntary counselling agency.
Voluntary counselling agencies tend to be made-up of both paraprofessional and professional counsellors. Yet most studies tend to focus on comparing these two groups rather than looking at the combined effectiveness of paraprofessionals and professionals working in a voluntary counselling setting. Although some studies in the UK describe voluntary counselling agencies, there were virtually no studies describing Canadian voluntary counselling agencies. This next section reviews evaluation studies conducted in voluntary counselling settings.

**Evaluation in voluntary counselling agencies.** In a climate of evidence-based practice and practice-based evidence, funders often ask for evaluation reports to determine the level of funding needed for various non-profit organizations. A survey of voluntary sector evaluations in Canada found that half of the funders surveyed expected evaluations from voluntary sector organizations (Canadian Centre for Philanthropy, 2003). Key informants were interviewed and indicated that time, expertise and money were needed to conduct an evaluation, and often served as barriers to conducting evaluations. Voluntary organizations admitted to telling funders what they think funders want to hear about the effectiveness of their services rather than conducting a sound evaluation. Also, there was an emphasis on reporting client outcomes, but many organizations had trouble measuring client outcomes especially in the area of early prevention (Canadian Centre for Philanthropy, 2003).

King, Nurcombe, Bickman, Hides & Reid (2003) investigated the effectiveness of suicide prevention telephone counselling services for young people. A rating measure was used in which telephone counsellors rated the mental state and suicidality of clients at the beginning and end of 100 taped telephone counselling sessions. Significant improvements in mental state and decreases in suicidality were found during the course of counselling sessions. Longer-term outcomes could not be determined because there was no post-counselling follow-up, but these
results suggest that there is a positive immediate impact of telephone counselling sessions for young people in the context of suicidality. Client outcome was based on self-reported ratings from counsellors only. Future research from the perspective of both counsellors and clients on outcome would provide more detailed information regarding agreement or disagreement on client outcome ratings.

Well-controlled evaluation studies are sparse in the literature on voluntary counselling effectiveness, but Toh & Tan’s (1997) study provides an example of an evaluation of church-based volunteer counsellors using a control group. These voluntary counsellors received a year of training, and were supervised by mental health professionals. The treatment group significantly improved compared to the wait-list control group based on client outcome measures. The authors suggest that volunteer counsellors were helpful to clients and played a role in the clients achieving positive outcomes (Toh & Tan, 1997).

While evaluating voluntary counselling services is useful, many agencies simply do not have the time, resources or funds to conduct an evaluation study on top of training, operational costs and responsibilities. In some cases, a feasibility study is needed to determine if evaluating outcomes is worthwhile. For example, a Scottish study explored the feasibility of evaluating client outcomes in a voluntary counselling agency, and revealed that evaluation plays an important role in enabling counsellors and staff to reflect on their work. However, it took a long time for the evaluation data to impact counsellor’s actual work and to enter supervisory discussions. Fifty-two out of 60 clients completed the Clinical Outcomes in Routine Evaluation System (CORE)\(^1\)—a widely used audit, monitoring, and evaluation system in the UK (Mellor-Clark, 2006). Counsellors reported an additional burden of paperwork. This study highlighted the

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\(1\) CORE outcome measure (1998) consists of 34 statements reflecting four different domains: subjective well-being, problems/symptoms, life functioning and risk. A client’s score can be obtained for each of the domains on a scale of 1 to 4 (the higher the score the more severe the problem).
reality that research-oriented, long-form questionnaires may not be feasible in counselling settings. Other negative aspects of the CORE system mentioned by counsellors include: the forms being a diversion from actual therapeutic work, the use of diagnostic categories in the counsellor forms, literacy challenges in completing the forms, and the fact that a few clients responded to the measurement tool with a ‘look of horror’ (Gardiner, Mcleod, Hill & Wigglesworth, 2003).

Generally, studies conducted on voluntary and community services only examine outcomes from the client’s perspective or the counsellor’s perspective but rarely look at both sides. Studies based on client self-reports found that clients value outcomes such as having an opportunity for catharsis, gaining reassurance, new perspectives and skills, and having space or time for the self (Archer, Forbes, Metcalfe & Winter, 2000; Paulson, Truscott & Stuart, 1999). Further, 92 ex-clients at a voluntary bereavement counselling centre self-reported high levels of user satisfaction, positive experiences and outcomes (Gallaher, Tracey & Millar, 2005). Clients received questionnaires up to 6 weeks post-counselling, which may have influenced their responses. Future studies should use a prospective design to prevent the likelihood of recall bias and to explore factors that predict positive client outcome.

Moore (2006) evaluated the work of voluntary counselling services and went one step further and compared it to equivalent National Health Services (NHS). This study was conducted in Britain, and found that the work being done by volunteer counsellors was similar to, as complex, and as effective as NHS. This study also demonstrated that volunteer counsellors are trained and experienced. The attrition rate was a limitation of this study, as a number of participants did not complete the post-therapy outcome questionnaire, which may have skewed the data to look more positive than it actually was.
Overall, the literature on voluntary counselling is relatively thin. There are a few studies coming out of the UK between 2003 and 2010 that explore the organization, training, effectiveness and feasibility of evaluation in voluntary counselling settings. However, none of these studies have evaluated voluntary sector counselling in the context of the therapeutic alliance and associated client outcomes.

The Therapeutic Alliance

The therapeutic alliance gained popularity after Bordin’s (1979) paper was published that described important components of the working alliance between clients and counsellors in therapeutic settings. Bordin postulated that alliance components consist of a mutual understanding, an agreement about change goals, and the necessary tasks to move towards these goals. In addition, a bond needs to be established between partners to facilitate this work. Although there is no single definition for the therapeutic alliance, Hatcher and Barends describe the term as “the degree to which the therapy dyad is engaged in collaborative, purposive work” (2006, p. 293).

In contrast to the limited studies available on voluntary counselling, there is an abundance of published articles on the therapeutic alliance in psychotherapy research. According to Horvath, Del Re, Fluckiger & Symonds (2011), a search of databases in 2009 yielded over 7000 items using keywords such as ‘alliance’, ‘therapeutic alliance’ and ‘working alliance’. Interest in the therapeutic alliance has been growing ever since the 1930’s when therapists no longer subscribed to a type of theoretical monism, and started to use a variety of approaches. In the 1970’s, the research evidence showed that there were no differences between various theoretical approaches, and researchers started to study common factors/theories in more detail. There was also a revival in the number of researchers studying Rogerian person-centred concepts. More
studies focused on the therapeutic relationship between clients and counsellors rather than specific approaches that the counsellor was using (Horvath et al., 2011).

The therapeutic alliance has been measured in several ways. Two core concepts that tend to be included in therapeutic alliance measures are (1) personal attachments, and (2) collaboration and/or willingness to participate in the therapy process. According to Horvath & Symonds (1991), there are five types of measures that are available as self-report or observer-rated measures.

First, there is the Penn Psychotherapy Project that developed a measure based on Luborsky’s (1976) conceptualization of the therapeutic alliance composed of two types. Type 1 is characteristic of the beginning of therapy where the client sees the therapist as supportive. Type 2 is characteristic of later parts of the therapy process in which the client sees him/herself as working together with the therapist. There is a sense of ‘we-ness’ on the working relationship.

The other four measures consist of the California Psychotherapy Alliance Scales (CALPAS), the Working Alliance Inventory (WAI), the Therapeutic Alliance Scale (TAS) and the Vanderbilt Therapeutic Alliance Scale (VTAS). Horvath & Luborsky (1993) assert that all of these measures assess the global alliance, but also measure a variety of alliance components. In general, all of these alliance scales have acceptable psychometric properties.

Duncan & Miller (2000) developed the session rating scale (SRS) that essentially measures the overall working alliance between the client and therapist. An advantage of this tool is that it only takes one minute to administer at the end of each counselling session. The SRS measure provides client-ratings of the session on a visual analogue scale in terms of their satisfaction with the relationship, goals and approach as well as how well the overall session was.
Therapeutic interventions influential in creating a positive alliance include counsellor-facilitated exploration, reflection, noting of past successes, acceptance, facilitating expression of affect and attending to the client’s experience (Ackerman & Hilsenroth, 2003). Qualities of the counsellor (e.g. genuine, non-judgmental, empathic and involved), and the therapeutic relationship established (e.g. trusting, reassuring, personal and accepting) were frequently reported by clients to be helpful in Elliot and James’ (1989) study.

**Client Outcome Measures**

Client outcome measures have consistently been related to the therapeutic alliance. Yet not many researchers have looked at the specific therapeutic gains and subsequent changes in the level of alliance throughout the course of therapy. For example, specific therapeutic gains can be assessed at each session to determine the client’s overall level of functioning from session to session. The client’s overall level of functioning is essentially an assessment of how the client is doing, and how the client perceives the outcomes of the therapeutic process. Assessing both the therapeutic alliance and client outcomes at each session provides the client and counsellor a mechanism to assess and better understand progress.

There are several ways to operationalize client outcome. One is measuring the experience of helpfulness by clients. For example, Paulson, Truscott & Stuart (1999) conducted a factor analysis of self-reported statements of experience of helpfulness by clients. The experience of helpfulness was found to be multi-faceted, and clustered into nine categories with the role of the therapeutic relationship, client change process, and counsellor’s interpersonal style reported as the most important categories.

Researchers have also measured client outcomes in terms of the level of distress in specific areas such as depression, anxiety, grief and loss, drug and alcohol use, relationship issues,
communication issues or psychotic or delusional symptoms. For example, the Beck Depression Inventory is commonly used for assessing a client’s level of depressive symptoms. In couples counselling, a relationships outcome measure such as the Locke marital adjustment scale (Locke & Wallace, 1959) or the Dyadic adjustment scale (Spanier, 1976) may be used. In the area of addictions counselling, the Addictions Severity Index is a commonly used multi-dimensional assessment tool. Some researchers have created their own questionnaire or measure of global distress and/or individual functioning. Further, some client outcome measures have been adopted by jurisdictions to ensure standardization. For example, the mental health outcomes and assessment tool (MH-OAT) was adopted by all health services in New South Wales. The MH-OAT consists of a Health of the Nation Outcomes Scale, a Global Assessment Scale, ICD-10 factors influencing health status, and a strengths and difficulties questionnaire (Patterson, Matthey & Baker, 2006).

Many of the scales described above are not practical to incorporate into everyday practice because they take time to complete. A brief alternative to the Outcome Questionnaire-45 is the Outcome Rating Scale (Duncan & Miller, 2000). The Outcome Rating Scale (ORS) measures client well-being across various areas of functioning such as individual, interpersonal, social and overall functioning. The ORS is an ultra-brief measure used by individual practitioners to better understand their client’s well-being (Campbell & Hemsley, 2009). The ORS is feasible in clinical settings because it only takes one minute to administer, and can be a useful evaluation tool for counsellors.

Level of personal change is another type of client outcome described in the literature. Since there are several different theories in change process research, personal change measures vary depending on one’s theoretical perspective of change. There are over 30 behaviour change
theories (Michie et al., 2005), making it particularly challenging to design personal change outcome measures.

Some of the more popular change theories include Prochaska and Diclemente’s (1986) transtheoretical model of change and Howard’s (1993) three-phase model of change. Prochaska and Diclemente’s change model is described as a spiral with five phases: pre-contemplation (i.e. no intent of change), contemplation (i.e. aware of problem), preparation (i.e. intention to change, but have not committed to taking action), action (i.e. modify behaviour, experiences or environment to meet goals) and maintenance (i.e. work to prevent relapse). One does not necessarily proceed through these phases in a linear fashion; instead it is more likely that change occurs through a cyclical process with periodic relapse and progress. The spiral model accounts for relapses and suggests that people learn from their relapses.

Howard’s model of change describes the early, middle and later phases of the therapy process and characterizes change in terms of the following 3-phases. First, there is the re-moralization stage, which consists of the reestablishment of a sense of subjective well-being. Second, there is remediation, which is when the client is learning to cope or actively manage stressors. Finally, in the rehabilitation stage clients are transferring what they have learned in therapy to other parts of their life to improve their overall functioning (Howard, Moras, Brill, Martinovich & Lutz, 1993)

The Alliance-Outcome Relationship in Psychotherapy Research

Since 1979, many studies have explored the relationship between the therapeutic alliance and client outcomes in a variety of professional therapeutic settings. Several studies have found that a positive working relationship with the therapist was the best predictor of positive outcomes in counselling (Horvath & Symonds, 1991; Orlinsky, Grawe and Parks, 1994). Also, statistical
evidence from meta-analyses have demonstrated an association between the therapeutic alliance and client outcome in the professional counselling sector. For example, a meta-analysis of 201 alliance studies found that the overall aggregate effect size for 190 independent alliance/outcome relations was 0.275, p<0.0001 (Horvath, Del Re, Fluckiger & Symonds, 2011). The overall effect size is moderate, but indicates a highly reliable relationship between alliance and psychotherapy outcome (Horvath, Del Re, Fluckiger & Symonds, 2011).

The strength of this alliance-outcome relationship along with therapist effects is one of the most robust predictors of treatment success (Wampold, 2001). Practice recommendations include attending to the alliance early on in the therapy process, and the importance of training therapists on creating the necessary conditions to create a good working alliance with clients (Horvath, Del Re, Fluckiger, Symonds, 2011).

Previous research indicates that the size and strength of the therapeutic alliance in relation to client outcomes is the same regardless of therapeutic orientation or type of therapy practiced (Horvath & Bedi, 2002; Horvath & Symonds, 1991; Martin et al., 2000). Equally important, the client’s experience of early change within the therapeutic process has been demonstrated to be a good predictor of treatment outcome (Duncan & Miller, 2000; Howard, Moras, Martinovich & Lutz, 1996; Lambert & Bergin, 1994).

Further, incorporating outcome information into the therapeutic process demonstrated a 65% improvement in groups of clients that were considered ‘at-risk’ for negative or no change in outcome (Lambert and colleagues, 2001; Whipple et al., 2003). The incorporation of feedback into counselling sessions is relevant to voluntary counselling agencies because alliance and outcome rating scales can be incorporated into the fabric of counselling sessions (Campbell & Hemsley, 2009). The rating scales can facilitate discussions of the therapeutic alliance, which
can account for up to 30-35% of the variance in client outcomes. In addition, the outcome rating scale can be used as an evaluation tool for organizations.

Evaluating services regularly can inform clinical decision-making, and can assist in monitoring treatment outcome. There are many multi-dimensional outcome measures that exist, but their methodological complexity, length and cost makes implementing these measures challenging for service providers in naturalistic settings (Miller, Duncan, Sparks & Claude, 2003). A variety of therapeutic alliance and client outcome measures have been created and demonstrated to be reliable and valid, such as the Outcome Questionnaire-45 (OQ-45) and the Working Alliance Inventory (WAI). However, these longer measures tend to be less feasible in naturalistic, clinical settings.

Although the therapeutic alliance and client outcomes have been studied extensively, they continue to be nebulous and abstract constructs. Since these constructs are constantly changing over the course of therapy, simply tracking the therapeutic alliance and well-being pre and post therapy lacks the sensitivity to determine patterns across various phases of therapy. Moreover, most research on the therapeutic alliance and client outcomes is based on the professional counselling sector. A study of the therapeutic alliance and client outcomes in the voluntary counselling sector is needed. Also, a study that looks at the connection between clients and counsellors is needed. Counselling research tends to focus on individual responses instead of studying the interdependence in a client-counsellor pair.

Interdependence refers to scores on a particular measure from two people that might be connected. Because clients and counsellors are connected, and clients of the same counsellor are indirectly connected, analytic approaches to studying the interdependence in dyads is relevant to counselling research in voluntary settings.
Analytic Approaches to Studying Interdependence

Most studies exploring the therapeutic alliance examine the individual contributions of the counsellor to the client rather than studying both the clients’ and therapists’ contributions to the therapeutic alliance and how the alliance influences therapeutic outcomes (Kivlighan, 2007). By studying individual contributions rather than the interdependence between partners in a dyad, many researchers are ignoring the influences that an individual has on his or her own outcome (e.g. actor effect) and the outcome of the other member (e.g. partner effect) (Kenny, Kashy & Cook, 2006).

Dyadic data analysis terminology is more prevalent in the marriage and dating literature; however, almost every relationship has a dyadic component even if it is nested within a larger group such as families or friendships. The measurement definition of non-independence is “if the two scores from the two members of the dyad are non-independent, then those two scores are more similar to (or different from) one another than are two scores from two people who are not members of the same dyad” (Kenny, Kashy, Cook, 2006, p. 4).

There are three main types of dyadic designs (see illustrations below). There is the standard dyadic design where each person is linked to one, and only one, other person. There is the one-with-many design where one person is paired with many different partners, but the many partners are only paired with the one person. Finally, there is the social relations model design where each person is linked to everyone else and vice versa.
Standard Dyadic Design

One-with-Many Design

Social Relations Model Design

Figure 1. Illustration of three dyadic design types (Kenny, Kashy & Cook, 2006, p.14).

Measuring non-independence and studying dyad variability. The main assumption of ANOVA and multiple regression is that units are independent once variables have been controlled for in the model (Kenny, Kashy & Cook, 2006). The unit of analysis can influence the statistical analysis results. For example, when individual is the unit of analysis in a sample of 40 dyads, there are 80 individuals with 80 independent pieces of data. However, if the dyad members interact then they will likely influence one another. Since the data are interdependent,
there may only be 40 pieces of independent data and “the dyad” would be the appropriate unit of analysis.

Typically, researchers have ignored non-independence, which can result in biased significance tests. Others have discarded data from one dyad member, only analyzing one member’s data or only collected data from one member of the dyad in order to avoid problems with non-independence. Another strategy is to treat the data from each member of the dyad as if they are from two separate samples. Kenny, Kashy and Cook (2006) suggest that statistical strategies for avoiding or ignoring non-independence are less-than-optimal and flawed because they do not statistically model the non-independence or take it into account. Studying non-independence when studying client-counsellor dyads is important given the reciprocal and relational nature of the counselling interaction and outcome.

**Dyadic Data Analysis Models**

There are several ways to model dyadic data including the Actor-Partner-Interdependence Model (APIM) and the Social Relations Model (SRM). The Actor-Partner-Interdependence Model is helpful when analyzing mixed independent variables, that is, when variables vary both within and between dyads. When a variable varies within a dyad, there are deviations in each individual’s score from the dyad mean. On the other hand, when a variable varies between dyads, there are variations amongst the means of dyads but no variation within dyads. Mixed independent variables refer to variables that vary both within dyads and between dyads and tend to address issues of mutual influence. The APIM models mutual influence by considering both actor and partner effects on an outcome variable (Kenny, Kashy & Cook, 2006).

To illustrate, the following figure demonstrates how a client alliance score (a between-dyads variable that only varies from dyad to dyad and not within a dyad) can be broken down
into actor and partner effects on a mixed independent outcome variable, client well-being. The actor effect is the influence of the client-counsellor alliance score on the client’s own rating of well-being. The partner effect is the influence of the client-counsellor alliance score on the counsellor’s perception of client well-being. As you will see below, the error terms are also correlated since there may be residual non-independence in the outcome score (Kenny, Kashy & Cook, 2006).

Figure 2. *Actor partner interdependence model*

The APIM works well when there are equal numbers of clients and counsellors, but when there is one counsellor working with many clients, a one-with-many design is more suitable. A one-with-many design fits naturally with psychotherapy research since there is often a one (therapist) working with the many (clients). The one-with-many design is an adaptation of both the Social Relations Model (SRM) and the standard dyadic design. It is similar to the SRM design because the counsellor (focal person) is paired with many clients. At the same time, it is similar to the standard dyadic design because each client is paired with only one counsellor (Kenny, Kashy & Cook, 2006).
In the SRM, the variance in components such as actor, partner and relationship are estimated. These three variance components are combined across individuals within groups, and between groups when members are indistinguishable (Kenny, Kashy & Cook, 2006). For example, when members can be distinguished by their roles such as clients vs. counsellors, the estimates for client actor effects are combined across counsellors, as are the client partner effects. Generalized reciprocity (or individual reciprocity) can be measured by correlating a person’s actor effect and partner effect (Kenny, Kashy & Cook, 2006). Dyadic reciprocity measures the correlations between the two relationship effects providing perspectives from both sides of the counselling relationship. Therefore, it measures the uniqueness of the relationship in terms of a particular dyad.

A reciprocal one-with-many design is when people are linked due to common-fate. The common-fate effect refers to partners being indirectly linked via one focal person. For example, since there are multiple clients for each counsellor, there is an indirect linkage between clients of the same counsellor. The one-with-many design will be discussed in more detail in the next chapter.

**Dyadic data analysis approaches in alliance-outcome psychotherapy research.**

Baldwin, Wampold and Imel (2007) studied the alliance-outcome correlation while simultaneously modeling within and between therapist correlations amongst professional counsellors. Therapist and client variability in the therapeutic alliance did not equally predict client outcomes. Specifically, therapists who on average formed stronger alliances with their clients showed statistically significant better outcomes than therapists who did not form as strong of alliances. These findings demonstrate that there are differences between therapists in their average alliance scores and that these are associated with client outcome. The interpretation of
results is complicated by the fact that Baldwin et al. (2007) study was cross-sectional, and only measured the therapeutic alliance at the fourth session. Because measurement of the alliance occurred at only one time point, it may not provide an accurate rating of the overall alliance for each dyad.

The therapeutic alliance was studied using a one-with-many design by Marcus, Kashy and Baldwin (2009). The authors suggest that their study is an improvement from Baldwin et al.’s (2007) study, because Baldwin et al. analyzed the therapeutic alliance as a unitary score rather than partitioning the alliance into the variance components. Marcus, Kashy and Baldwin partitioned the alliance into client-rated and therapist-rated variances, and examined the correlations between these alliance components and outcome amongst 65 therapists and 227 clients. They found that the therapist-rated Working Alliance Inventory (WAI) did not predict outcome, which is consistent with other findings where client-rated WAI are better predictors of outcome than therapist-rated WAI scores (Horvath & Bedi, 2002). Marcus et al. employed a statistical method that takes into account the non-independence in dyadic counselling data, and their article provides a detailed description of the statistical analysis. Marcus’ statistical method is particularly relevant to my thesis because I closely followed their description of dyadic data analysis in my study.

A more recent study also uses the one-with-many design, but with a sample of 14 therapists and 398 youth being treated for substance abuse (Marcus, Kashy, Wintersteen, Diamond, 2011). This study explored the complexity of the alliance-outcome correlation by examining the different components of the therapeutic alliance (perceiver, partner and relationship variances) from clients and therapists relating to two different outcome measures: self-reported days of cannabis use in the last 90 days and scores on the Substance Problem Index
They found that there was limited consensus among clients seen by the same therapist about the quality of the alliance. There were only 14 therapists in Marcus et al.’s study limiting the power to test for therapist-effects. Also, more than half of the clients were referred by the juvenile justice system to participate in treatment, which may have influenced alliance ratings (Marcus, Kashy, Wintersteen & Diamond, 2011).

Summary

In this chapter I reviewed the literature on therapeutic relationships in Child and Youth Care practice, discussed paraprofessional counselling effectiveness and the voluntary counselling sector, the relationship between the therapeutic alliance and client outcomes, and described dyadic data analysis strategies in psychotherapy outcome research. Psychotherapy outcome research has only recently started to explore dyadic data analysis techniques for modeling interdependence. Further, counselling sessions tend to play out in a collaborative, interdependent, and reciprocal process between counsellors and clients.

Taken together, a dyadic data analysis study in the voluntary counselling sector is needed. The next chapter describes the methodology and study design used to model the interdependence between client-counsellor dyads in a voluntary counselling agency.
Methodology

My main research questions were:

- How are client-counsellor dyads similar or different from each other in terms of ratings on the client outcome measure?
- What was the degree of consensus, assimilation and uniqueness between the therapist-ratings and client-ratings on client outcome?
- What was the level of reciprocity (e.g. the degree to which a person sees partners in a particular way and vice versa) in client outcome?

My analytic strategy involved the following steps:

1) Summarizing open-ended questions regarding counselling goals and summarizing demographic data.

2) Comparing measures of central tendency and dispersion within and across counsellors for all counselling sessions.

3) Partitioning the variance in the Outcome Rating Scale at the last counselling session into partner, perceiver and relationship effects and analyzing corresponding measures of consensus, assimilation and uniqueness.

4) Calculating the alliance-outcome correlation and measuring the levels of reciprocity (dyadic and generalized).

Participants

Participants were recruited from Citizens’ Counselling Centre (GVCCC) in Victoria, BC. All counsellors and clients were over nineteen years of age and signed a written informed consent form. All counsellors were trained volunteers, practicum students or professional counsellors providing voluntary counselling services at the counselling centre. The participants
were 10 (5 female and 5 male) counsellors and 36 (22 female, 12 male, 2 unknown) clients. Counsellors ranged in age from 26 to 65. Clients ranged in age from 20 to 62.

The measures for the study were selected by the agency for their feasibility, brevity, clinical utility, reliability and validity. All of the counsellors included in the study received training on using the client outcome measure (Outcome Rating Scale) and therapeutic alliance measure (Session Rating Scale) and were using it in their practice.

**Measures**

There were three measures used in this study. The outcome measures consisted of the Outcome Rating Scale (ORS) and personal change questions. The ORS was developed as a brief alternative to the Outcome Questionnaire 45 (Lambert, Morton, Hatfield, Harmon, Hamilton, Reid et al., 2004), which is a 45-item questionnaire scored between 0-180. Both the ORS and the OQ-45 assess individual, interpersonal and social functioning.

The therapeutic alliance was measured using the Session Rating Scale (SRS). This measure was developed as a brief alternative to other scales measuring the alliance such as the Working Alliance Inventory (Horvath & Greenberg, 1989). Both the ORS and the SRS are visual analogue scales with lines 10 cm in length. Respondents placed a hash mark on the line allowing scores out of ten to be obtained for each dimension on the scales, yielding a total score between 0 and 40.

**The outcome rating scale (Duncan & Miller, 2000).** The ORS is a four-item scale with strong reliability estimates (α=0.87-0.96). The items of the scale address overall well-being, individual well-being, interpersonal well-being, and social well-being. Changes in these three areas have been shown to be valid indicators of treatment outcome (Kazdin, 1994; Lambert, Burlingame, Umphress, Hansen, Vermeersch, Clouse & Yanchar, 1996; Lambert & Hill, 1994).
Clients and counsellors filled in the ORS by marking agreement across the four statements on a visual analogue scale asking how they have been doing in the past week including today (see Figure 3 below).

<table>
<thead>
<tr>
<th>Individual</th>
<th>(Personal well-being)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>I----------------------</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Interpersonal</th>
<th>(Family, close relationships)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>I----------------------</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Social</th>
<th>(Work, school, friendships)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>I----------------------</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Overall</th>
<th>(General sense of well-being)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>I----------------------</td>
</tr>
</tbody>
</table>


Figure 3. *The outcome rating scale (Miller & Duncan, 2000)*

**The session rating scale (Miller & Duncan, 2000).** The SRS measures the therapeutic alliance. It is a four-item visual analogue scale designed for clinical use. It demonstrates good reliability estimates across a range of patient populations ($\alpha=0.88$), and is recognized as a valid measure of the therapeutic alliance (Campbell & Hemsley, 2009). The SRS is positively correlated with measures of outcome such as the ORS ($r=0.29$, $p<0.01$) demonstrating that the SRS functions similarly to other alliance measures (Duncan, Miller, Sparks, Claud, Reynolds...
&Brown, 2003). Clients marked their agreement with four statements on a visual analogue scale. Clients rated the relationship, goals, approach and overall experience of the therapy session anchored by the statement of how they related to the counsellor (see figure below).

<table>
<thead>
<tr>
<th>Please rate today’s session by placing a mark on the line nearest to the description that best fits your experience.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Relationship</strong></td>
</tr>
<tr>
<td>I did not feel heard, understood, and respected.</td>
</tr>
<tr>
<td>I-----------------------------------------------I</td>
</tr>
<tr>
<td><strong>Goals and Topics</strong></td>
</tr>
<tr>
<td>We did <em>not</em> work on or talk about what I wanted to work on and talk about.</td>
</tr>
<tr>
<td>I-----------------------------------------------I</td>
</tr>
<tr>
<td><strong>Approach or Method</strong></td>
</tr>
<tr>
<td>The therapist’s approach is not a good fit for me.</td>
</tr>
<tr>
<td>I-----------------------------------------------I</td>
</tr>
<tr>
<td><strong>Overall</strong></td>
</tr>
<tr>
<td>There was something missing in the session today.</td>
</tr>
<tr>
<td>I-----------------------------------------------I</td>
</tr>
<tr>
<td>Overall, today’s session was right for me.</td>
</tr>
</tbody>
</table>


Figure 4. *The session rating scale* (Miller & Duncan, 2000).

**Personal change question.** At the end of the set of counselling sessions both clients and counsellors rated the client’s level of personal change on the following scale: 1=worse, 2=no change 3=small change 4=moderate change 5=significant change. This measure was created by GVCCC for tracking purposes and there is not much support for this measure in the literature. The five options on the scale likely bias clients and counsellors to report positive change rather than negative change. Because clients and counsellors already complete this personal change measure as part of the documentation collected for internal and/or tracking purposes for GVCCC, this data was available, but was not used in my analyses.
Procedure

The study was explained to counsellors at orientation sessions, training sessions, counselling workshops and group supervision meetings. Clients who expressed an interest in the study were provided with a written informed consent form.

A set of counselling sessions is typically a maximum of ten one hour weekly sessions. An introductory interview was administered by a trained counsellor. Demographic data was obtained from counsellors and clients including age, gender and level of counselling training. Demographic data were included in the study primarily for descriptive purposes.

At each counselling session, clients rated their relationship, goals, approach and overall alliance with their counsellor at the end of each session using the Session Rating Scale (SRS). Clients also rated their individual, interpersonal, work or career and overall sense of well-being using the Outcome Rating Scale (ORS) at the beginning of each session. Counsellors completed the ORS based on their weekly impressions of their client.

In the final session, clients rated their level of personal change, and counsellors rated their perception of their client’s level of personal change. Clients also reported how he/she is different since beginning counselling. The purpose of this question was to provide descriptive data on self-reported personal changes.

In sum, both clients and counsellors completed the SRS together at the end of each session, which yielded one score for both the client and the counsellor. The counsellor and the client also completed the ORS, yielding separate scores.

**Ethical and practical considerations.** The University of Victoria ethics review board and the Executive Director of the Counselling Centre approved this study. Counsellors at the voluntary counselling centre had already been using the therapeutic alliance measures and the
client outcome measures as a practice tool during counselling sessions. The data collected were not intrusive, and was not about the private lives of the clients or counsellors. Demographic data were already being collected by office staff and in the introductory interview conducted by counsellors. Clients were matched with counsellors based upon availability, client preferences (e.g. counsellor gender), and presenting concerns/reasons for coming to counselling.

The demand characteristics in this study were (1) participants were a self-selected group, and (2) participant’s ratings might have been influenced by social desirability. Although there were no controls for social desirability, studies have found the measures to be reliable, valid and feasible in clinical settings (Miller, Duncan, Brown, Sparks & Claude, 2003; Campbell & Hemsley, 2009).

**Study design**

Typically, researchers tend to analyze dyadic data using standard approaches such as multiple regression or analysis of variance. However, these standard statistical approaches assume independent data and can produce Type I errors because this type of data is often non-interdependent (Marcus, Kashy & Baldwin, 2009). I used a one-with-many study design, because it has a natural fit with counselling phenomenon and allows for modeling of interdependent data.

The data was analyzed using linear mixed models, and the statistical analysis strategy was drawn from the description in Marcus, Kashy & Baldwin’s (2009) article on “how to conduct a one-with-many analysis using SPSS” (p.547).

To model the interdependence in client and counsellor scores on the outcome variable, the variance in ORS scores was partitioned. Partitioning the variance refers to decomposing the total variance in ORS scores into its perceiver, partner and relationship effects.
**One-with-many designs.** One-with-many designs get their name from the way the data are structured. There are three variations of the one-with-many design family: (1) one-perceiver many targets, (2) many perceivers one-target, and (3) reciprocal. The one-perceiver, many-targets (1PMT) design is when one person rates many targets. For example, there is one counsellor that provides a client outcome rating with all of his/her clients. The many perceivers one-target design (MP1T) is when many partners rate one person. For instance, there are many clients who provide a therapeutic alliance rating of one counsellor. A reciprocal design is when the data is generated by both the “one” and the “many” (Marcus, Kashy & Baldwin, 2009). For example, clients provide a rating with their counsellor and the counsellor provides a rating with each of his/her clients.

The figure below illustrates the variance components for client outcome derived from a reciprocal one-with-many design.

![Diagram](image)

**Figure 5.** *One-with-many design variance components for client outcome score (Marcus, Kashy & Baldwin, 2009, p.540)*
**Perceiver, partner and relationship effects.** Perceiver, partner and relationship effects were calculated by partitioning the variance in client and counsellor-rated ORS scores.

*Perceiver effects* are when the focal person provides data for each partner. Perceiver effects measure the degree that someone responds in similar ways across partners. In other words, it measures the level of assimilation amongst the focal people. In this study, these are the counsellors. For example, Bob reports that his client Jessica achieved positive outcomes. But, it may be because Bob reports a positive outcome with all of his clients regardless of who the client is.

*Partner effects* are the ratings by client of the counsellor. Partner effects describe the degree to which the partners respond in a similar fashion with a particular focal person. Partner effects essentially measure the level of consensus amongst clients about a particular counsellor. As an illustration, Bob is especially skilled at helping clients to achieve positive outcomes, so Jessica’s report of a positive outcome may reflect the fact that all clients tend to perceive positive outcomes with Bob.

There are also *relationship effects* between the pair and/or the dyad. For example, if Jessica would not have achieved a positive outcome with other counsellors and Bob’s clients do not typically report positive outcomes with him, but Jessica still feels that Bob helped her to achieve positive outcomes, this can be attributed to the relationship (Marcus, Kashy & Baldwin, 2009).

Since each person in the counselling relationship rates the other person, there are two relationship effects: the client relationship and the counsellor relationship. The client relationship effect refers to whether clients report unique outcomes with their counsellors. The counsellor relationship effect refers to whether counsellors report unique outcomes with their clients. These
two relationship effects essentially measure the level of uniqueness in the counselling relationship as compared to how other clients rate that counsellor.

In addition to the three main components discussed above, the level of reciprocity between clients and counsellors can be measured.

**Reciprocity.** There are two types of reciprocity: generalized and dyadic. *Generalized reciprocity* is the correlation between two dyadic effects. Generalized reciprocity refers to whether counsellors rate all of their clients in a particular way and whether those clients respond in a similar fashion. *Dyadic reciprocity* is the correlation between the client and counsellor relationship effects. If a client reports an especially positive outcome with a particular counsellor, does that counsellor also report an especially positive outcome?

**The elements of a one-with-many analysis in psychotherapy research.** The table below describes the elements of a one-with-many design in terms of variance components, whether the rater or source data is the counsellor or client, and my research questions.
Table 1 Elements of a one-with-many design in psychotherapy research (adapted from Marcus, Kashy & Kenny, 2009, p.539)

<table>
<thead>
<tr>
<th>Variance Components</th>
<th>Rater</th>
<th>Research Question</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Perceiver effect:</strong> degree someone responds in similar ways across partners (measures the level of assimilation)</td>
<td>Counsellor</td>
<td>Counsellor perceiver: Do counsellors report similar outcomes across their clients?</td>
</tr>
<tr>
<td><strong>Partner effect:</strong> degree everyone responds in a similar fashion with a particular partner (measures the level of consensus)</td>
<td>Client</td>
<td>Counsellor partner: Do clients report similar outcomes with their counsellors?</td>
</tr>
</tbody>
</table>
| **Relationship effect:** unique component of dyadic relationship over and above any perceiver or partner effects (measures the level of uniqueness) | Client or Counsellor | Client relationship: Do clients report unique outcomes with their counsellors?  
Counsellor relationship: Do counsellors report unique outcomes with their clients? |
| **Generalized reciprocity:** correlation between two dyadic effects | Counsellor perceiver correlated with counsellor partner | Do counsellors who report better outcomes have clients that also report better outcomes? |
| **Dyadic reciprocity:** correlation between partner and perceiver effects | Client relationship correlated with counsellor relationship | If a client reports an especially positive outcome with a counsellor, does the counsellor also report an especially positive outcome? |

In my study, the client, not the counsellor, completed the Session Rating Scale (SRS).

Therefore the SRS can only be partitioned into two variances: therapist partner and client relationship variances. Instead, I partitioned the Outcome Rating Scale (ORS), which is a measure of perceived client well being. The ORS was partitioned because it captures attitudinal and relational components of both client and counsellor perceptions of client outcome after a set of counselling sessions. In addition, the ORS provides shared and individual understandings for both clients and counsellors of perceived client outcome.
Statistical Analysis Procedures

Multi-level modeling (MLM) techniques were used, following Marcus, et al. (2009). The counsellor is the upper unit and the client is the lower unit. Main effects and interactions between upper and lower level predictors and outcomes were determined. Because the study is a reciprocal design, a two-intercept approach (Raudenbush, Brennan, & Barnett, 1995) was used. Two dummy variables were created to indicate which person provided the outcome score.

The MLM output provides individual-level covariances as well as the relationship (plus error) covariances. The total variance is calculated by summing the individual and relationship (plus error) covariance together depending on who had completed the ORS (e.g. client or counsellor).

Typically, multi-level modeling is conducted on sample sizes of 100 or more. In spite of this, multi-level modeling techniques were applied in this exploratory study, because the purpose was to illustrate ways to model dyadic data rather than to confirm a theory or to use the results to generalize to a larger population. Therefore, an important limitation of this study is the sample size.
Results

In this chapter I will discuss the results of the study starting with the descriptive data for each measure, and then move onto correlations and finally the variance partitioning of the Outcome Rating Scale (ORS) using multi-level modeling. The small sample size of 36 clients and 10 counsellors limited the power to detect significance. In addition, the variance partitioning for the ORS was only conducted on the final counselling session because of missing data.

This chapter includes the following sections:

1) Summary of open-ended questions regarding counselling goals and summary of demographic data.
2) Comparison of measures around central tendency and dispersion within and across counsellors for all counselling sessions.
3) Variance partitioning for the Outcome Rating Scale at the last counselling session into partner, perceiver and relationship effects and analysis of corresponding measures of consensus, assimilation and uniqueness.
4) Analysis of correlations to measure the levels of reciprocity (dyadic and generalized) and the alliance-outcome correlation.

Descriptive data

We were interested in determining clients’ reasons for coming into counselling at the beginning of counselling as well as client reported areas of improvement at the end of counselling. In general, clients came to counselling seeking help with anxiety, depression, interpersonal relationships and grief and loss. Client goals prior to the first counselling session include wanting to gain clarity or a different perspective, to improve their self acceptance, body image issues and to discuss career goals. These reasons for coming to counselling are similar to
the type of issues that a professional clinical counsellor might see at a private or government-funded agency (Moore, 2006).

Clients reported at their first counselling session that they had goals such as the development of coping skills, gaining clarity, decreasing anxiety, decreasing depression, effectively dealing with anger, feeling more settled, and to have more self-acceptance. These goals are similar to the presenting problems reported by Moore (2006) in her study comparing the work of voluntary counsellors to National Health Service counsellors. Moore (2006) reported that the Leicester Counselling Centre’s five most common presenting problems were a) depression b) anxiety/stress c) interpersonal problems d) self-esteem and e) bereavement/loss. These findings are consistent with the most frequently cited areas of improvement reported by clients in my study.

At the final counselling session, clients reported improvement in several areas of functioning such as communication, anxiety, stress, depression, anger, self-esteem, grief and loss. These areas of functioning cited by clients are compatible with the findings reported by Leibert (2010) amongst an internet-based population of clients (N=224) and clients at a University counselling centre in Michigan (N=159). Leibert (2010) found that the four constructs that were predictive of psychological distress included the client’s primary life role (e.g. life purpose, work/career or identity), security needs (e.g. financial health, living environment), support network (e.g. acceptance and sense of belonging), and presenting problem (e.g. anxiety, stress, depression). In my study, client’s initial goals and reported areas of improvement correspond with these four constructs demonstrating similar types of psychological distress described in the literature.
Although a connection cannot be made between the initial interview, first session and final session, there is substantial overlap between client self-reports about their initial goals and areas in which they improved at the end of a set of counselling sessions. The table below provides a summary of the goals and areas of improvement reported by clients in my study.

**Table 2 Summary of client goals**

<table>
<thead>
<tr>
<th>Initial interview (goals)</th>
<th>First session (goals)</th>
<th>Final session (areas of improvement)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Grief and loss</td>
<td>• Gain clarity (e.g. decisions re: career/relationships/moving)</td>
<td>• Communication</td>
</tr>
<tr>
<td>• Boundary setting</td>
<td>• Feel satisfied in various areas of life (academic, personal, professional, social)</td>
<td>• Anxiety</td>
</tr>
<tr>
<td>• Anxiety</td>
<td>• Learn coping skills</td>
<td>• Stress</td>
</tr>
<tr>
<td>• Relationship conflict</td>
<td>• Self-acceptance/self-awareness/self-confidence</td>
<td>• Depression</td>
</tr>
<tr>
<td>• Financial problems</td>
<td>• Extinguish unwanted behaviors (urges)</td>
<td>• Anger</td>
</tr>
<tr>
<td>• Anger management</td>
<td>• Anger</td>
<td>• Self-esteem</td>
</tr>
<tr>
<td>• Improve well-being</td>
<td>• Depression</td>
<td>• Grief/Loss</td>
</tr>
<tr>
<td>• Career planning</td>
<td>• Anxiety</td>
<td>• Transition</td>
</tr>
<tr>
<td>• Letting go (guilt, anger, fear etc.)</td>
<td>• Anxiety</td>
<td>• Financial</td>
</tr>
<tr>
<td>• Different perspective</td>
<td>• Learn to trust</td>
<td>• Self-affirmation</td>
</tr>
<tr>
<td>• Self-acceptance/better understanding</td>
<td>• Feel more settled/feel less overwhelmed</td>
<td>• Living environment</td>
</tr>
<tr>
<td>• Gain clarity (e.g. leave spouse, move, career goals)</td>
<td>• Financially independent</td>
<td>• Career decisions</td>
</tr>
<tr>
<td>• Lose weight</td>
<td>• Happier</td>
<td>• Acknowledging other people’s reactions</td>
</tr>
<tr>
<td></td>
<td>• Have more respect for my partner</td>
<td>• Getting rid of negative thoughts</td>
</tr>
<tr>
<td></td>
<td>• Get to know self better</td>
<td>• Understanding roots of aggression</td>
</tr>
<tr>
<td></td>
<td>• Understand my problems</td>
<td>• General sense of well being</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Expression of love</td>
</tr>
</tbody>
</table>
**Personal change.** At the final counselling session, clients were asked how they have changed and/or how are they different since beginning counselling at the voluntary counselling agency. Some examples of the range of responses include: “I am more okay with who I am”, “I am recognizing my weaknesses”, “I am gaining tools for how to cope and live”, “In my relationships, I think about my responses before I engage”, “I am more focused and grounded”, “I am not suffering from anxiety anymore”. These responses highlight the client’s sense of having made positive changes at the end of counselling. In particular, the responses demonstrate that clients seem to have improved their well-being at the individual, interpersonal and social levels. For example, greater self-acceptance and better coping skills at the individual level and improvements in relationships at both the interpersonal and social levels.

**Correlational Analyses.** Correlations were calculated to determine the association between the therapeutic alliance and client outcome. The alliance-outcome correlation was of interest because previous studies have reported that the alliance is the single most important predictor of outcome (Bohart & Tallman, 1999).

Across 36 clients and 10 counsellors, the correlation between the client-rated SRS (therapeutic alliance measure) and the client-rated ORS (outcome measure) was positive and statistically significant ($r=0.21, p<0.01$, two-tailed). The age and gender of clients and counsellors was not significantly correlated with the client-rated SRS, counsellor-rated ORS or the client-rated ORS. Therapeutic alliance has been reported as a reliable predictor of client outcome (Horvath & Symonds, 1991).

**Session Rating Scale (SRS) and Outcome Rating Scale (ORS).** The therapeutic alliance was measured using the SRS at every counselling session. In my sample, the mean client-rated SRS score across all counselling sessions was 36.9 ($SD=4.37$) out of a possible 40.
According to Duncan & Miller (2003) a score between 36 and 40 indicates a strong alliance.

The table below contains descriptive data within counsellors on the SRS across all counselling sessions.

**Table 3 SRS means and standard deviations across all counselling sessions.**

<table>
<thead>
<tr>
<th>Counselor</th>
<th>Mean client-rated SRS</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>39.6</td>
<td>0.5</td>
</tr>
<tr>
<td>B</td>
<td>37.0</td>
<td>1.9</td>
</tr>
<tr>
<td>C</td>
<td>38.5</td>
<td>3.0</td>
</tr>
<tr>
<td>D</td>
<td>37.3</td>
<td>4.2</td>
</tr>
<tr>
<td>E</td>
<td>39.5</td>
<td>0.6</td>
</tr>
<tr>
<td>F</td>
<td>35.4</td>
<td>6.2</td>
</tr>
<tr>
<td>G</td>
<td>37.3</td>
<td>1.9</td>
</tr>
<tr>
<td>H</td>
<td>34.5</td>
<td>6.5</td>
</tr>
<tr>
<td>I</td>
<td>37.8</td>
<td>2.4</td>
</tr>
<tr>
<td>J</td>
<td>31.3</td>
<td>6.4</td>
</tr>
</tbody>
</table>

The Outcome Rating Scale (ORS) is a measure of perceived client outcome. The ORS was completed separately by counsellors and clients at the beginning of every session. Counsellors tended to rate clients lower on the ORS than clients. Across all counselling sessions and counsellors, the mean counsellor-rated ORS score (n=10) was 26 ($SD=7.17$) out of a possible score of 40. The mean client-rated ORS score (n=36) was 30 ($SD=7.87$) out of a possible score of 40. An overall score of 26 for the group of clients indicates an overall level of well-being slightly higher than a clinical population. According to Duncan & Miller (2003), clinical populations tend to score lower than 25 on the ORS.

Table 4 below provides descriptive data across all counselling sessions. The ORS means and standard deviations within each counsellor are displayed in the table. Three counsellors did not provide any counsellor-rated ORS scores.
Table 4 ORS means and standard deviations within counsellors.

<table>
<thead>
<tr>
<th>Counselor</th>
<th>Number of clients</th>
<th>Mean client rated ORS</th>
<th>S.D.</th>
<th>Mean counselor rated ORS</th>
<th>S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>1</td>
<td>22.4</td>
<td>9.1</td>
<td>18.7</td>
<td>5.3</td>
</tr>
<tr>
<td>B</td>
<td>6</td>
<td>32.0</td>
<td>6.6</td>
<td>29.8</td>
<td>4.4</td>
</tr>
<tr>
<td>C</td>
<td>2</td>
<td>26.5</td>
<td>3.5</td>
<td>14.6</td>
<td>5.1</td>
</tr>
<tr>
<td>D</td>
<td>9</td>
<td>22.5</td>
<td>10.2</td>
<td>25.3</td>
<td>7.2</td>
</tr>
<tr>
<td>E</td>
<td>2</td>
<td>35.6</td>
<td>4.3</td>
<td>28.9</td>
<td>12.0</td>
</tr>
<tr>
<td>F</td>
<td>9</td>
<td>23.7</td>
<td>10.4</td>
<td>No data</td>
<td>---</td>
</tr>
<tr>
<td>G</td>
<td>1</td>
<td>21.1</td>
<td>1.7</td>
<td>13.4</td>
<td>3.7</td>
</tr>
<tr>
<td>H</td>
<td>2</td>
<td>28.9</td>
<td>6.8</td>
<td>No data</td>
<td>---</td>
</tr>
<tr>
<td>I</td>
<td>2</td>
<td>29.7</td>
<td>6.5</td>
<td>30.13</td>
<td>4.4</td>
</tr>
<tr>
<td>J</td>
<td>2</td>
<td>22.4</td>
<td>9.1</td>
<td>No data</td>
<td>---</td>
</tr>
</tbody>
</table>

A paired samples t-test was conducted between client-rated ORS scores and counsellor-rated ORS scores across all counsellors and clients. There was a significant difference between the mean ORS counsellor and client rated scores ($t = -6.41, p < 0.01$). Overall, clients tended to rate themselves higher on outcomes than counsellors across all counselling sessions. The mean ORS score for clients was 30.1 and for counsellors was 26.0.

**Multi-level Model**

This study is an exploratory study and we were interested in decomposing the variance in client outcome into partner, perceiver and relationship effects. We also wanted to determine the level of reciprocity for perceived client outcome, both dyadic and generalized. Multi-level modeling has a natural fit with psychotherapy research, because clients are nested within counsellors. In multi-level modeling (MLM) the lower level units were the clients and the upper level units were the counsellors. However, because the final session had the least missing data, we decided to use MLM to partition the variance outcome only at the final counselling session. Therefore, multi-level analyses were conducted on only 6 therapists and 17 clients. This small sample size seriously limited the study’s power for testing counsellor and client-level effects as
well as the level of reciprocity between clients and counsellors. At the final counselling session, the client-rated ORS score across counsellors was slightly higher \((n=17, M=32.4, SD=7.93)\) than the counsellor-rated ORS score \((n=6, M=28.6, SD=10.29)\).

Multi-level modeling was used to conduct the one-with-many analysis. This required the inclusion of two dummy codes in the fixed-effect statement and suppressing the intercept in order to provide two values that estimate the average values for counsellors and clients separately (Marcus, Kashy & Baldwin, 2009). The table below illustrates the statistical output with covariance estimates for the ORS.

<table>
<thead>
<tr>
<th>Table 5 Multi-level model covariance parameters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parameter</td>
</tr>
<tr>
<td>-----------</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Repeated Measures</td>
</tr>
<tr>
<td>Counsellor (1)</td>
</tr>
<tr>
<td>Client (2)</td>
</tr>
<tr>
<td>Corr (2,1)</td>
</tr>
<tr>
<td>Counsellor +Client (subject=TherID)</td>
</tr>
<tr>
<td>Counsellor(1)</td>
</tr>
<tr>
<td>Client (2)</td>
</tr>
<tr>
<td>Corr (2,1)</td>
</tr>
</tbody>
</table>

Note. *p<0.05; Counsellor, n=6; Client, n=17
a. Dependent Variable: Outcome Rating Scale (ORS) score

The multi-level model above provided average values for clients and counsellors. These average values were used to calculate the proportion of the variance due to perceiver, partner and relationship effects based on who completed the ORS ratings--client or counsellor. The following table provides the results of the variance partitioning for the ORS at the final counselling session.
Table 6 Variance partitioning for the Outcome Rating Scale

<table>
<thead>
<tr>
<th>Rater</th>
<th>Perceiver</th>
<th>Partner</th>
<th>Relationship</th>
<th>Total Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Client</td>
<td></td>
<td>91.9</td>
<td>8.1*</td>
<td>114.31</td>
</tr>
<tr>
<td>Counselor</td>
<td>55.2</td>
<td></td>
<td>44.8*</td>
<td>144.52</td>
</tr>
</tbody>
</table>

Note. *p<0.05; Counselor, n=6; Client, n=17

When the client was the rater, the partner variance was 91.9 and this was non-significant. This can be interpreted as the counsellor accounting for a large, but non-significant amount of the variance in client-rated ORS scores. In other words, there was a large consensus amongst clients seeing the same counsellor about the perception of client outcome at the end of a set of counselling sessions.

The relationship variance was 8.1 and significant when the client was the rater. This implies that a small amount of the variance in client-rated ORS scores can be attributed to the relationship, perceiver and error variance components.

When the counsellor was the rater, the perceiver variance was 55.2 but it was non-significant. This means that counsellors accounted for 55.2% of the variance in the ORS ratings, but counsellors did not necessarily report higher ORS scores with their clients than other counsellors.

The rest of the variance in the counsellor-rated ORS was 44.8 and significant. Therefore, 44.8% of the variance in ORS scores can be attributed to relationship, perceiver and error variance components. Because both client and counsellor-rated relationship variances were significant, this indicates a substantial relational component to the perception of client outcome at the end of a set of counselling sessions.
As a cautionary note, the small sample size (6 counsellors and 17 clients) needs to be stressed, because this may have contributed to the instability of the dataset and by extension the interpretation of findings.

**Reciprocity.** Dyadic reciprocity is the correlation between the client relationship effect and the counsellor relationship effect. The dyadic reciprocity correlation was small, positive, and non-significant ($r=0.15, p=0.65$). Counsellors who rated a particular client especially high on the ORS did not necessarily have clients who also rated themselves high on the ORS. This suggests that client outcome was only slightly a function of the unique relationship between clients and therapists.

Generalized reciprocity is the perceiver-partner correlation. The generalized reciprocity correlation was large, positive, and statistically significant ($r=0.96, p<0.01$). Counsellors who rated their clients high on the ORS, in general, had clients who also rated themselves high on the ORS.

The large generalized reciprocity correlation suggests that some therapists tend to have clients with better outcomes (on the basis of both their self-report and their clients’ report). There are many reasons that there would be a consensus amongst clients of the same therapist on outcome. Several reasons include the therapist knowing the client well, therapist characteristics and a good alliance. Therefore, across counsellors, there may be certain therapist characteristics that were associated with better client outcomes.

The generalized reciprocity correlation was much larger than the dyadic reciprocity correlation in this study. The implications of the reciprocity correlations suggests that researchers should focus their attention on the common characteristics amongst counsellors that might be associated with better client outcomes rather than the uniqueness of the client-counsellor match.
Discussion

About four years ago, Greater Victoria Citizens’ Counselling Centre (GVCC) implemented two brief therapy tools. These tools are: (1) the session rating scale (SRS)—a measure of the therapeutic alliance, and (2) the outcome rating scale (ORS)—a measure of client well-being. The larger conceptual purpose of this thesis was to explore the implementation of these brief therapy tools. A dyadic data design was used to explore the individual and shared contributions of clients and counsellors to perceived client well-being. To do this, the variance in outcome ratings by both clients and counsellors was partitioned into perceiver, partner and relationship effects. The perceiver and partner effects measure the degree of similarity in client and counsellor ORS ratings. The relationship effects are the unique components of the dyadic relationship over and above any perceiver or partner effects. We also examined the quality of reciprocity in ORS ratings to explore whether the common factors/characteristics amongst counsellors were more influential than the uniqueness of the client-counsellor match.

The specific research questions explored were:

a) How are client-counsellor dyads similar to or different from each other in terms of ratings on client outcome?

b) What was the degree of consensus, assimilation and uniqueness between the therapist-ratings and client-ratings on client outcome?

c) What was the level of reciprocity (dyadic and generalized) in client outcome?

Similarity and Differences on Outcome Rating Scale Between Dyads

Thirty-six clients and ten counsellors participated in the study. The mean client-rated ORS score across all counselling sessions and counsellors was 30 with a range of 21.1 to 32.0. The mean counsellor-rated ORS score across all counselling sessions and counsellors was 26 with a
range of 13.4 to 31.0. A paired samples t-test revealed that the mean client and counsellor rated ORS scores were significantly different from each other ($p<0.01$). Therefore, clients in general, tended to rate themselves lower on the ORS than their counsellors. In other words, counsellors’ perception of client well-being is significantly lower than their client’s perception of their own well-being. This is consistent with a previous study where therapists’ ratings of positive outcomes were lower than clients’ reports (Doherty & Simmons, 1996).

It could be that counsellors are more pessimistic about client progress than clients are or that counsellors are not accurate in estimating the client’s level of distress. Bryan, Dersch, Shumway and Arredondo (2004) found that gender and ethnicity interact to influence client and therapist perceptions of client outcome. In my study, the relationship between gender and ethnicity was not examined in relation to outcomes. Future studies should use dyadic data approaches and incorporate gender and ethnicity as predictors for the perception of client outcome.

The client and counsellor mean ORS scores show a relatively large variation in scores. The client mean ORS score ($n=36$) was 26.0 and the counsellor mean ORS score was 30.0 ($n=10$). Duncan & Miller (2000) state that a score of 24 or lower means that the client is in enough distress to seek help. Counsellors are advised to monitor scores that fall below 24 on the ORS, scores that level off, as well as scores that improve by 5 points or more each session. The discussions should focus on any extra-therapeutic influences such as new employment or loss of employment, new relationships, visits from family members etc. Counsellors should also discuss with their clients how to obtain improvement by adjustments to the counselling approach or style. If the ORS scores continue to drop in the first few sessions, counsellors are encouraged to seek supervision.
In this study, the SRS was used as a measure of the therapeutic alliance. The mean client-rated SRS was 36.9 out of 40. According to Duncan & Miller (2000), an overall SRS score of 36 or less needs to be discussed with clients. The purpose of discussing feedback from the SRS is to repair ruptures in the alliance when they happen. In my study, the 10 counsellors and 36 clients had an overall alliance score within the strong alliance range of 36 to 40. Further, the alliance-outcome correlation was significant at 0.21 which is slightly lower than what has been reported in the literature \( r=0.25 \) by Kramer, de Roten, Beretta, Michel & Despland (2008).

**Consensus, Assimilation and Uniqueness**

The variance in the outcome rating scale at the last counselling session was partitioned into perceiver, partner and relationship effects. The main finding of my study is that perceived client outcome is highly relational, meaning that client-counsellor dyads tended to provide similar ORS ratings. This is demonstrated by both client and counsellor relationship variances being significant. The client relationship variance was 8.1 and the counsellor relationship variance was 44.8. In terms of uniqueness, both clients and counsellors reported unique outcomes with each other. In other words, client-counsellor dyads tended to agree on the level of perceived client outcome.

One implication of the relational nature of perceived client outcome is that clients and counsellors may benefit from discussing ORS scores. Clinicians and researchers have hypothesized that client outcomes are part of the therapeutic alliance, and that early improvements in client outcome can influence the trajectory of therapy and the alliance (Elvins & Green, 2008). Therefore, discussing perceived client well-being is very important in therapy, and should be done regularly. Incorporating feedback into counselling sessions has been shown
to improve client outcomes, because it allows counsellors to monitor progress and discuss what
may be influencing clients in a more concrete and practical way.

The individual contributions of clients and counsellors to perceived outcome were non-
significant. However, the partner variance (91.9) was large which suggests that there was likely a
large consensus in ORS scores for clients who saw the same therapist, but because of the small
sample size, there was not enough power to detect a statistically significant result. The perceiver
variance was also large and non-significant (55.3) which suggests that some counsellors rated
their clients high on the ORS and others did not. This provides some evidence of assimilation
between the counsellors, meaning counsellors tended to report similar ORS scores across all of
their clients.

The relatively large partner and perceiver variances implies that some counsellors tended
to agree with their clients on perceived client well-being more than other counsellors did. The
discrepancy between client and counsellor ratings on the ORS may represent counsellor’s
knowledge of their clients or the quality of discussions that counsellors have with their clients
regarding weekly changes in ORS scores. Some counsellors seem to know their clients better
than other counsellors, and clients may respond more positively to counsellors who take an
interest in their well-being and the therapeutic alliance.

**Dyadic and Generalized Reciprocity**

The dyadic reciprocity was small and non-significant and the generalized reciprocity was
large and significant. The difference between dyadic and generalized reciprocity is that the
dyadic reciprocity is a measure of the strength of the relationship between a particular client-
counsellor pair (over and above partner and perceiver effects). Generalized reciprocity measures
the strength of the relationship between a counsellor and all of his/her clients.
As discussed earlier, the large generalized reciprocity correlation suggests that researchers should focus their attention on the common characteristics amongst counsellors that might be associated with better client outcomes rather than the uniqueness of the client-counsellor match. Some of the common characteristics that influence the therapeutic alliance have been described in Duff’s (2008) thesis. Specifically, 11 counsellor behaviours were identified as moderately or strongly correlated to the alliance and two of these counsellor behaviours, “making positive comments about the client” and “greeting the client with a smile”, were significantly related to the strength of the alliance.

Other common characteristics between counsellors might be the level and type of training, the quality of supervision received, the opportunities provided for catharsis, and the level of empathy. Amongst clients, common characteristics include readiness for change, motivation and attendance. In my study, the voluntary nature of therapy and the voluntary nature of counsellors could also have played a role in client outcomes. Perhaps the client’s readiness for change had an impact on outcome, and the knowledge that the counsellor was volunteering their time may also have influenced the client’s perception of outcome.

**Implications**

Overall, the descriptive statistics, variance partitioning of client outcome, and reciprocity correlations suggest that perceived client outcome is relational. Because perceived client outcomes reflects attitudinal and relational components, there seems to be support for common characteristics amongst counsellors for estimating client outcomes at the end of a set of counselling sessions. Counsellors included in this study may have a relatively accurate sense of their client’s well-being after having worked with their clients for a period of time. These particular counsellors may have shown an interest in their client’s well-being, and discussed it
throughout the counselling process making it easier for counsellors to make judgments about perceived client outcome.

Perceived client outcome also reflects shared and individual understandings of client well-being. The non-significant but large partner and perceiver variances suggest that there is consensus amongst clients of the same counsellor on client outcome. There is also evidence of assimilation. Counsellors tend to agree with their clients on perceived client outcomes. From a statistical standpoint, shared understandings of clients and counsellors on client well-being seem to contribute more to client outcome measures than individual understandings of client well-being. One reason for this is that counsellor’s assessment of client well-being is based on the client’s presentation and the client’s previous ORS scores. Therefore, counsellors usually have a pretty good idea of where clients are at just based on their previous contact with the client. Another explanation is that counsellors may have been trained on how to interpret how well their clients are doing by the very nature of being in the voluntary counselling field.

Being able to accurately assess how your client is doing and adjusting your approach or style accordingly could be an important common characteristic amongst counsellors who work with clients to achieve positive outcomes.

**Strengths and Limitations**

This study had several strengths including the study design and statistical analysis technique used. The one-with-many analysis separated client and counsellor ratings into their various components. In this study I described individual and shared understandings of perceived client well-being which may have otherwise been hidden when non-partitioned ORS scores are used to calculate perceived client well-being from clients and counsellors.
The client-rated Session Rating Scale (SRS) was sampled frequently, at every session, providing a more robust assessment of the overall therapeutic alliance. Previous studies have typically only sampled the therapeutic alliance at one session, which provides only a snap-shot of what the alliance is like. The client-rated SRS was then correlated with the client-rated ORS to examine the strength of this relationship. The client’s perspective of the alliance is a stronger and more robust predictor of client outcome than the counsellor’s perspective (Horvath & Bedi, 2002; Zuroff & Blatt, 2006), so correlating the client-rated SRS with outcome made theoretical sense.

Another strength of the study was the statistical technique. I used multi-level modeling to address problems associated with non-independence. The equations in the multi-level model accounted for clients being nested within counsellors. In addition, rather than treating non-independence as a nuisance, the non-independence between clients and counsellors was a primary research question in the study. Questions that are not usually asked in psychotherapy research such as the degree of consensus, assimilation and reciprocity were asked.

There were several limitations in this study. These include challenges with doing research in naturalistic settings such as response bias and social desirability. For example, some participants may only have been using the upper end of the scale while others tended to use the middle end of the scale obscuring the accuracy of results when partitioning the variance. Social desirability may have influenced clients’ ratings of counsellors. Future studies should incorporate a social desirability bias scale to statistically account for errors resulting from this type of bias. Further, client-counsellor dyads were not randomly assigned to each other, which also may have influenced the results.
Challenges with the study design and statistical analysis included being unable to separate all components of the variance in the ORS, small sample size, and missing data. It was impossible to separate the client perceiver variance from relationship variance or to separate the client partner variance from relationship variance because of the structure of the one-with-many design. However, Marcus, Kashy & Baldwin (2009) have argued that “even a partial variance partitioning has the potential to be an improvement over the treatment of dyadic variables as raw scores” (p. 545).

The small sample size of 6 clients and 17 counsellors for the variance partitioning of the outcome measure and the overall sample size of 10 counsellors and 36 clients was probably the most important limitation of this study and is a reason this is an exploratory study. The sample size was too small for accurate multi-level modeling, which should have at least 100 participants according to some and as many as 250 according to others. Nevertheless, the study design and statistical approach used in this study could have great value to researchers studying relationships since relationships tend to be dyadic, relational and interdependent.

Besides having a very small sample size, the statistical analysis was complicated by the fact that there was missing data. Many counsellors and clients did not complete the rating scale at every session and the statistical program used omits missing data; therefore, it was necessary to only use the final ORS score in the model. I was unable to account for the non-independence in repeated measures (e.g. sessions) across clients because of the small sample size and missing data. It would have been interesting to simultaneously model the ORS scores over-time and within and between clients and counsellors.
Future Directions

An important aspect of being a counsellor is to elucidate what aspects of counselling may result in positive outcomes for clients (Duncan & Miller, 2000). It is not enough to just say that counselling is helpful but to be able to articulate to clients why it might be helpful and in what ways counsellors can play a role in helping. Some researchers come from the view that the client’s alliance perspective is the most important and robust predictor of client outcomes (Horvath & Bedi, 2002; Zuroff & Blatt, 2006). Others come from the view that the dyadic nature of the alliance is important to evaluate in relation to client outcomes (Marcus, Kashy & Baldwin, 2009; Marcus, Kashy, Wintersteen & Diamond, 2011).

It would have been interesting to look at the composition of alliance scores and to examine their changes over time in counselling. We had a personal change measure that had not been validated or tested for reliability. The personal change measure was not included in the statistical analysis for this study, but future studies should incorporate a standardized personal change measure to better understand how the therapeutic alliance relates to another dimension of perceived client outcome. Other researchers have also suggested that further studies with other outcome measures are needed to better understand which components of the therapeutic alliance predict which outcomes in particular therapeutic settings (Marcus, Kashy, Wintersteen & Diamond, 2011).

Future studies should explore the discrepancy between client and counsellor perceptions of outcome and how that may influence processes such as motivation, attendance and alliance as these factors have been shown to contribute to outcome (Barber, Connolly, Crits-Cristoph, Gladis, & Siqueland, 2000; Reimers, 2001). Also, studies should employ dyadic data analysis techniques to ask rarely asked questions.
In general, my study has applications for child and youth care research and practice because child and youth care work tends to take place in groups or dyads. For example, a one-with-many design can be used to study child and youth care workers and multiple clients. My study also makes a contribution to the Canadian voluntary counselling literature. Finally, my study points to the need for further research on child and youth care worker effectiveness while using approaches that do not violate standard independence assumptions.
Bibliography


