# The Development of the Leeds Alliance in Supervision Scale (LASS): A Brief Sessional Measure of the Supervisory Alliance

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**Submitted in accordance with the requirements for the degree**

**of**

**Doctor of Clinical Psychology (D. Clin. Psychol.)**

**The University of Leeds**

**Academic Unit of Psychiatry and Behavioural Sciences**

**School of Medicine**

**July 2010**

**Intellectual Property and Publication Statements**

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# Acknowledgements

I would like to thank my supervisors, Dave Green and Gary Latchford, for their knowledge, support, and guidance throughout the completion of this thesis. I would also like to thank them for their unwavering enthusiasm for the subject area and this project, and for their calming supervisory style that has kept me going through the darker phases of the thesis. I would like to thank all my participants for giving up their valuable time and making the project possible. I would like to thank members of the course teams at all the Universities who gave permission for me to talk to their trainees about the project and who helped me in the recruitment phases of the 2 studies. I would particularly like to thank contacts at the Universities of Edinburgh, Liverpool, Manchester, Sheffield, and Lancaster University, who went far and above the call of duty in helping with my recruitment. I would like to thank my parents for keeping me on the straight and narrow and supporting me through my undergraduate degree, which allowed me to pursue the career path I have chosen. Finally, and most importantly, I would like to thank my partner Claire, as without her kindness, support, and understanding over the years, this would not have been possible.

# Abstract

**Background:** Clinical supervision is a central practice in the development of clinicians. The supervisory alliance is a key process within clinical supervision, and may have a real impact on supervisee development. This may provide a rationale for the use of sessional measures to provide ongoing feedback on the supervisory alliance. Various measures of the supervisory alliance exist. However these instruments are too long to be used on a sessional basis.

**Objectives:** To develop a short-form measure (LASS) of the supervisory alliance from the perspective of the supervisee that has the clinical utility to be used on a sessional basis, and the psychometric properties to be a credible instrument for research.

**Study 1:** Items from existing measures of the supervisory alliance were qualitatively analysed to produce a 25-item experimental measure. This was administered to 98 UK trainee Clinical Psychologists. Principal Components Analysis (PCA) of the data resulted in a 2-factor solution. Hierarchical Cluster Analysis led to the identification of 3 clusters measuring the supervisory alliance. Representative items were chosen, resulting in the 3-item LASS.

**Study 2:** The LASS, and other related measures, were administered to 140 UK trainee Clinical Psychologists. Analysis of this data found that the LASS had acceptable internal consistency and test re-test reliability, but provided evidence that the LASS was sensitive to change. The results of the analysis investigating concurrent and convergent validity indicated that the LASS is a valid measure of the supervisory alliance.

**Conclusions:** The LASS is a reliable and valid measure of the supervisory alliance that is sensitive to change and has the clinical utility to be used on a sessional basis. The results of the studies 1 and 2 are discussed in the context of the literature and methodological limitations. Directions for future research are outlined in detail.

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# Abbreviations

| | |
|---|---|
| ARM-5: | Agnew Relationship Measure – 5-item version |
| BPS: | British Psychological Society |
| BSAS: | Brief Supervisory Alliance Scale |
| DG: | Dr David Green |
| DH: | Department of Health |
| EPSI: | Evaluation Process within Supervision Inventory |
| GL: | Dr Gary Latchford |
| HLM: | Hierarchical Linear Modelling |
| KMO: | Kaiser-Meyer-Olkin measure of sampling adequacy |
| K-S Test: | Kolmogorov-Smirnov test of normality |
| LASS: | Leeds Alliance in Supervision Scale |
| NHS: | National Health Service |
| OQ-45: | Outcome Questionnaire 45 |
| ORS: | Outcome Rating Scale |
| PCA: | Principal Components Analysis |
| PCOMS: | Partners for Change Outcome Management System |
| RCRAI: | Role Conflict Role Ambiguity Inventory |
| RI: | Relationship Inventory |
| SOS: | Supervisory Outcomes Survey |
| SPSS-17: | Statistical Package for the Social Sciences version 17 |
| SRQ: | Supervisory Relationship Questionnaire |
| SRS: | Session Rating Scale |
| SSB: | Questionnaire to Evaluate Supervision (translation) |

SSQ: Supervisory Satisfaction Questionnaire

SWAI: Supervisory Working Alliance Inventory – Trainee form

WAI-T: Working Alliance Inventory – Trainee form

# Introduction

## Overview

Personal and professional challenges faced by Psychologists and Psychotherapists in clinical work make seeking clinical supervision an important endeavour. However the process of clinical supervision is complex and contains a number of components. A key component is the alliance that forms between supervisor and supervisee. The alliance in supervision has received some research attention, and this has led to the development of measures of the alliance and related constructs. Measures of the supervisory alliance are very useful to researchers. However, is the measurement of this construct useful in real-life clinical practice? Could measurement of the supervisory alliance enhance the supervisory process? Are currently available measures of the supervisory alliance suitable for use in everyday practice?

This chapter will begin by presenting a definition of clinical supervision. Concepts of the alliance in both psychotherapy and supervision will then be discussed, and research findings indicating the importance of the alliance presented. Next, the chapter will consider the utility of providing feedback regarding the alliance in both psychotherapy and supervision, and the rationale for alliance measurement in everyday clinical practice. Available measures of the supervisory alliance will then be critically discussed and the grounds for the development of a new short-form measure of the supervisory alliance will be presented.

# Clinical Supervision

## *Defining Clinical Supervision*

Milne (2007) recently defined clinical supervision as *the formal provision by senior/qualified health practitioners of an intensive relationship-based education and training that is case focused and which supports, directs and guides the work of colleagues (supervisees)*. The functions of supervision were outlined to be: *1) quality control, 2) maintaining and supporting the supervisees' competence and capability, and 3) helping supervisees to work effectively* (p440).

The above definition clearly outlines the relationship and collaborative alliance between supervisor and supervisee. It also draws attention to the evaluatory and quality control components of supervision, which make this activity extremely important, particularly in training.

## *Clinical Supervision as a Responsibility for Clinical Practice*

Supervision is associated with delivering quality standards in the National Health Service (NHS: Department of Health [DH], 1998), and is outlined as *a core clinical activity* for Clinical Psychologists (British Psychological Society [BPS], 2003, p 2). Supervision is particularly important for trainees. All training programmes for mental health professions include supervision by qualified supervisors (Watkins, 1995, 1997). Accreditation of UK Clinical Psychology training courses requires that trainees spend at least 50% of their training in supervised clinical practice (BPS, 1999).

Due to the importance of supervision, consideration must be paid to how it is delivered. However, as with the delivery of Psychotherapy, it is likely

that there is much variation in supervision delivery. If such variation exists, does it matter?

## *Approaches to Supervision: Towards a Trans-theoretical Model?*

There are a number of theoretical models that influence clinical practice in psychology and psychotherapy. This variation affects the delivery of both psychotherapy and supervision (Bradley, 1989). The variation in therapeutic practice and an ever-increasing focus on outcome research has resulted in a renewed interest in the old question of whether the therapeutic model makes a significant difference to outcome (Lubursky, Singer, & Lubursky, 1975; Rosenzweig, 1936; Smith & Glass, 1977; Wampold, 2001). This variation in models of practice also renders this question relevant to supervision. However supervision outcome may be more difficult to measure. Furthermore, some have argued that the complexities of supervision cannot be accounted for by one single model (Gilbert & Evans, 2001; Ladany, Ellis, & Friedlander, 1999). It may be the case that factors common to all models of supervision are most important to supervision outcome (Holloway, 1987).

In the construction of a *trans-theoretical model of supervision*, Aten, Strain, and Gillespie (2008) described helpful facilitative behaviours that supervisors may perform to aid the progression of developing psychotherapists. They outlined the fostering of *helping relationships*, which were described as bonds based on trust, acceptance, openness, and compassion. This condition is proposed to provide a holding environment that helps trainees feel secure and empowered to challenge themselves and progress. This alliance building behaviour is applicable across any model of

supervision, and is therefore implicated as an important common factor for supervision.

## The Alliance

At this point it is important to explicitly outline what is meant by the terms *alliance* and *relationship*. Definitions of the alliance in both therapy and supervision will be outlined below. However in considering the *therapeutic* alliance, some authors use the terms alliance and relationship interchangeably (e.g. Agnew-Davis, Stiles, Hardy, Barkham, & Shapiro, 1998), while others seek to clearly delineate them as two distinct terms (e.g. Hatcher & Barends, 1996).

Some consensus is emerging regarding the differentiation between the alliance and relationship in therapy. However this is not the case in supervision and the terms continue to be employed interchangeably. Given that the present report is focused on the supervisory alliance, the terms alliance and relationship will be used interchangeably to describe the concepts outlined below.

### *The Alliance in Therapy*

In considering the supervisory alliance, it is first useful to outline the conceptualisation of the therapeutic alliance and how it has been implicated to impact on therapeutic outcome. The most widely cited conceptualisation of the therapeutic alliance is that of Bordin (1979), who considered psychoanalytic theory in developing a trans-theoretical model of the alliance. He suggested that the alliance was a key factor in the change process and

therapeutic effectiveness in all psychotherapies, a notion that has been echoed by others (Wolfe & Goldfried, 1988).

In considering analytic writing (Greenson, 1967; Menninger, 1958; Sterba, 1937; Zetzel, 1956), Bordin (1979) proposed that the therapeutic alliance had 3 components: 1) an agreement on goals, 2) an agreement on tasks, and 3) an emotional bond. Agreement on *goals* is an accord between therapist and client regarding the client's difficulties and the focus of their work. Agreement on *tasks* is the therapeutic contract outlining agreed responsibilities within treatment. Finally emotional *bond* is the relationship that forms between therapist and client, which will involve bonds of trust and attachment. This bond is closely linked to the agreement on goals and tasks for therapy.

Various research studies have investigated the relationship between the alliance and outcome in therapy. Lambert (1992) claimed that the alliance accounted for 30% of within-therapy variance in outcome. Horvath and Symonds (1991) conducted a meta-analysis and found a significant positive relationship between self-rated outcome and therapeutic alliance. Connors, DiClemente, Carroll, Longabaugh, and Donovan (1997) found client and therapist ratings of the working alliance to be significant predictors of treatment participation, percentage of days abstinent, and drinks per drinking day in a study of treatment for alcohol misuse. Martin, Garske, and Davis (2000) conducted a meta-analysis of 79 studies finding that alliance ratings had an overall effect size of .22 on outcome, which is modest but statistically significant.

The causal relationship between alliance and outcome may be questioned on the basis of many of the above studies. However in a recent review,

Castonguay, Constantino, and Holtforth (2006) highlighted a number of studies demonstrating that early alliance measures could predict post-treatment change, suggesting that a sound alliance preceded outcome. Furthermore, a positive relationship could be found between alliance and outcome when controlling for previous change (e.g. Barber, Connolly, Crits-Christoph, Gladis, & Siqueland, 2000; Klein, Schwartz, Santiago, Vivian, & Vocisano, 2003).

Another criticism that could be made of alliance-outcome research is that it tends to be correlational. The difficulty with correlational research of this kind is that it cannot account for the respective influences of the client and therapist in the alliance-outcome relationship. In a complex investigation employing multilevel modelling, Baldwin, Wampold, and Imel (2007) investigated the relationship between alliance and outcome both within therapists (variance attributable to clients), and between therapists (variance attributable to therapists). They found that *therapist* variability in *client*-rated therapeutic alliance accounted for the significant alliance-outcome relationship. This indicates that therapists who formed stronger therapeutic alliances with their clients gained significantly better outcomes than therapists who formed less strong therapeutic alliances.

It is clear that the alliance in therapy is a definable construct, and that the alliance has been positively associated with treatment outcome in a range of studies. It is now important to consider the alliance in supervision and the impact that this may have.

## *Models of the Alliance in Supervision*

### *Bordin's Supervisory Working Alliance*

In his paper outlining the therapeutic alliance, Bordin (1979) suggested the wider applicability of his alliance conceptualisation. This later led to Bordin's model of the supervisory working alliance (Bordin, 1983). As with the therapeutic alliance, this model also outlined the importance of *agreement on goals*, *agreement on tasks*, and an *emotional bond*. Agreement on *goals* referred to objectives for change to be achieved in supervision, and the principles involved in achieving that change. Agreement on *tasks* is the understanding of the responsibility that the goals would impose on the supervisor and supervisee. Finally, the emotional *bond* is feelings of *liking, caring, and trusting* between the supervisor and supervisee (p36).

Bordin's (1983) supervisory working alliance, which is an extension of his original therapeutic working alliance theory (Bordin, 1979), has received some criticism. Firstly it is criticised on the grounds of there being little empirical scrutiny of the model. Secondly it is criticised for not acknowledging one of the key distinctions between therapy and supervision: the evaluatory component of supervision and the effect this may have on the alliance (Ellis & Ladany, 1997). The first criticism was indeed valid at the time of Ellis and Ladany's article. However it is argued here that the second criticism is unfounded.

In his conceptualisation, Bordin (1983) outlines a number of specific supervisory goals, one of which is to maintain service standards. Bordin also describes a responsibility of the supervisee being to prepare work for review,

and for the supervisor to directly observe and give feedback on performance. Finally, Bordin explicitly stated: *an important bonding problem is created by the inescapable evaluative element in supervision. Whether or not actual grades are involved, supervisors are part of a professional gatekeeping apparatus designed to protect the public and the profession*. This clearly draws a distinction between therapy and supervision.

Empirical scrutiny of Bordin's (1983) theory was recently undertaken by Ellis, Barr, and Deihl (2007). They conducted a confirmatory factor analysis on the Working Alliance Inventory – Trainee version (WAI-T: Bahrick, 1990), which mirrors Bordin's 3-factor structure. The analysis revealed that the three factors were highly correlated, leading the authors to conclude that the supervisory alliance might be a single factor construct. In a recent Doctoral dissertation, Smith (2009) conducted a Principal Components Analysis on data from both supervisor and trainee versions of the WAI. The analysis led to the extraction of one component from data on the trainee form, and one component from data on the supervisor form. This further suggests that Bordin's tri-factor model might be best represented by a single factor. However this finding may be more a function of the measure employed in these two studies.

In constructing the WAI measures, Bahrick (1990) made simple wording adaptations to measures of the *therapeutic* alliance (Horvath & Greenberg, 1989) that were based on Bordin's theory (1979), in order for them to fit the supervisory context. These modifications would not allow for the differences between therapy and supervision outlined by Bordin (1983) to be captured. Furthermore Bahrick's WAI measures were not subjected to factor analysis to

test their factor structure with a sample of supervisors and supervisees[1]. The findings that Bordin's theory might be best accounted for by a single factor structure might therefore be a function of Bahrick's measures. It is important that measures of the supervisory working alliance incorporate items to account for evaluation in supervision. However without further research including other measures of the supervisory alliance that *do* tap the evaluatory component of supervision, the possibility of a single factor supervisory alliance cannot be excluded.

## *Holloway's Systems Approach*

In a much less cited conceptualisation, Holloway (1997) described a relationship component in her *systems approach to supervision*. Holloway set out the relationship as a flexible relational structure that supported trainees' developmental needs in a *collaborative learning alliance* (p251). This alliance consisted of three components: 1) an interpersonal structure of the relationship, b) the phase of the relationship, and c) the supervisory contract.

Holloway (1997) described the interpersonal structure in terms of *power and involvement*. Power referred to the formal, hierarchical nature of supervision, requiring the supervisor to impart knowledge, evaluate performance, and give feedback. Involvement referred to intimacy and attachments between the supervisor and supervisee, which may influence power. *Phases of the relationship* referred to the evolution of the relationship between the supervisor and supervisee, and changes in the dynamic as two individuals come to know each other more. Finally, the *supervisory contract*

[1] A more complete appraisal of this measure of the alliance in supervision will be presented later in this chapter.

referred to the clear communication and agreement regarding the roles and tasks for supervision.

Although different, Holloway (1997) and Bordin's (1983) theories have a number of similarities. Both models involve contracting between supervisor and supervisee regarding the tasks and goals, both explicitly outline evaluation in supervision, and both involve an emotional bond/attachment. Furthermore, like Bordin's, Holloway's model could be criticised for lacking empirical scrutiny. This is most likely due to the lack of instruments designed to measure the alliance specifically in accordance with Holloway's model.

## *Beinart's Theory of the Supervisory Relationship*

Beinart (2002) considered the viewpoints of Bordin (1983), Holloway (1997), and earlier alliance related theories related to therapy. She asked supervisees to describe attributes of previous supervisory relationships that they believed had contributed most to their effectiveness as a clinician. Analysis using grounded theory revealed nine themes describing effective supervisory relationships: boundaried, supportive, open relationship, respectful, committed, sensitive to needs, collaborative, educative, and evaluative.

Although outlining a greater number of facets than either Bordin (1983) or Holloway's (1997) models, both appear to be captured within Beinart's theory. Furthermore, Beinart explicitly references the evaluatory component that distinguishes supervision from therapy. In support of Beinart's theory, Palomo (2004) referenced various independent studies of the relationship in supervision that appeared to obtain findings that supported Beinart's 9-theme

model. However the simple matching of research findings to Beinart's model appears somewhat anecdotal.

## *Palomo's Model of the Supervisory Relationship*

Palomo and colleagues (Palomo, 2004; Palomo, Beinart, & Cooper, 2010) used Beinart's (2002) findings as a theoretical base upon which to construct their own measure of the supervisory relationship: the Supervisory Relationship Questionnaire (SRQ)[2]. Principal components analysis of the scale revealed six components: *safe base, commitment, structure, reflective education, role model,* and *formative feedback*. Safe base described the *facilitative* conditions of the supervisory relationship, which included the supervisee feeling *supported, valued and respected* in an open and safe environment (p 71). Structure described boundaries within supervision. Commitment referred to the perception that the supervisor is happy to be providing supervision. Reflective education taps perceptions about the supervisor's ability to integrate theory and practice using a range of theoretical models. Role model assesses the supervisor's credibility as an individual from whom the supervisee can learn. Finally, formative feedback refers to the extent to which the supervisee feels that performance feedback is given.

Palomo (2004) suggests that this model supports Bordin's (1983) 3 factors, as well as supporting the *interpersonal structure* and *supervisory contract* elements of Holloway's (1997) systems approach. Palomo suggests that her model shares most similarities to Beinart's (2002) theory of the supervisory relationship. However Palomo's quantitative analysis indicates

[2] The SRQ will be fully detailed and evaluated later in this present chapter.

that Beinart's theory might be explained better by six factors rather than the 9 themes she developed through qualitative interpretation.

## *Interim Summary*

In summary, there are four primary theories of the supervisory alliance. The four theories appear to share considerable overlap. The only factor that stands out as belonging to only one theory is Holloway's factor describing the phase of the relationship in supervision. It is important to note that each of the theories accounts for a key difference between supervision and therapy, the evaluatory component. Owing to the overlap between these theories, each theory appears to be of real value when considering the alliance in supervision.

### *The Importance of the Alliance in Supervision*

Research has been conducted that highlights the importance of the alliance in supervision. Ellis (1991) found that supervisees considered the supervisory alliance to be the single most important component of clinical supervision. In a review of the dominant theories of trainee development, Holloway (1987) concluded that the alliance might be the responsible mechanism of change as trainees develop. Indeed Ramoz-Sanchez, Esnil, Riggs, Wright, Goodwin, Touster, et al. (2002) found significant positive relationships between both supervisee developmental level and satisfaction, and ratings of the supervisory alliance. Also, Ladany, Hill, Corbett, and Nutt (1996) found that weak supervisory alliances could lead to supervisee non-disclosure, which precludes the evaluatory component and therefore supervisee development.

The presence of a weak supervisory alliance can also contribute to trainees experiencing role conflict and role ambiguity. Role conflict occurs when trainees are asked to do things against their own personal judgement, or when they are asked to perform multiple roles requiring opposing behaviours. Role ambiguity occurs when the trainee is unclear about their role expectations in supervision. Ladany and Friedlander (1995) found that low bond ratings based on Bordin's (1983) theory significantly predicted high role conflict and vice versa, whereas goal and task ratings were significantly inversely related to role ambiguity. This result is particularly important given that role conflict and role ambiguity may be predictive of work related anxiety and dissatisfaction with supervision (Olk & Friedlander, 1992).

The experience of a poor supervisory alliance may also be a potentially damaging experience for supervisees. The nature of supervision makes conflict in this relationship inevitable. However resolution of this conflict is of critical importance (Mueller & Kell, 1972). Nelson and Friedlander (2001) found that unresolved conflicts could lead to a lack of mutual engagement and difficulties in working through this conflict, as well as future mistrust of supervisors in general.

The relationship between conflict and alliance may change over time, making the alliance a dynamic concept that requires multiple measurements over time (Ladany et al., 1999). With multiple measurements Ladany et al. found a relationship between the emotional bond component of Bordin's (1983) theory and supervisee rated satisfaction with supervision, positive view of supervisor, and positive view of their own performance in supervision.

Although the above research suggests that the supervisory alliance is of both emotional and developmental importance to the supervisee, there is some suggestion that the importance of the relationship between supervisor and supervisee may be overstated. Zarbock, Drews, Bodansky and Dahme (2009) suggest that in order for trainee Psychologists and Psychotherapists to acquire new skills they have to be challenged by their supervisors, which might cause some distress. The authors express concern that if supervisors are pre-occupied with being liked by their supervisees, challenging supervisees in a way that may cause distress but facilitate the acquisition of therapeutic skills may be compromised. However it is argued here that the supervisory alliance is more than a fondness between supervisor and supervisee. It describes conditions that explicitly aid the development of new skills, which requires more than just being liked.

In a recent study, Reese, Usher, Bowman, Norsworthy, Halstead, Rowlands., et al (in press) found that discussion of feedback on the therapeutic alliance and client outcome received directly from clients in supervision had no impact on supervisees' ratings of the supervisory alliance. This is despite the possibility that the experience of discussing direct client feedback led to uncomfortable discussions resulting in the adaptation of therapeutic practice. This finding indicates that trainees can experience challenges in supervision without any negative affect on the supervisory alliance. Indeed it is argued here that the supervisory alliance could provide a supportive environment that facilitates learning during such necessary challenges. Although supervision and the supervisory alliance is important for

the development of supervisees, there is some evidence to suggest that it may have an impact on the supervisee's clients.

### *The Effect of the Supervisory Alliance on Clients*

In a systematic review of the literature investigating the impact of supervision on counsellors and therapists, their practice and their clients, Wheeler and Richards (2007) concluded that supervision had an impact on client outcomes. In a recent study, Bambling, King, Raue, Schweitzer, and Lambert (2007) compared outcomes for clients with major depression whose therapists received either alliance-skill or alliance-process focused supervision, or no supervision at all. The investigation found that the clients of supervised therapists gave significantly higher ratings of the supervisory alliance, achieved a significantly greater reduction in mood scores, were more likely to stay in therapy for longer, and rated therapy more positively, than the clients of unsupervised therapists. There was no effect of supervision focus. These studies provide initial evidence regarding the effectiveness of supervision in relation to client outcomes.

There is also initial evidence for the effect of the supervisory alliance on the clients of supervised therapists. Some of this evidence is found in investigations into parallel process. Parallel process comes from the psychoanalytic notion of transference and is outlined by a number of authors (e.g. Doehrman, 1976; Ekstein & Wallerstein, 1972; Loganbill, Hardy, & Delworth, 1982; Stoltenberg & Delworth, 1987). Parallel process is in operation when a supervisee presents to their supervisor in a way that their client presents to them, or when the supervisee presents themselves to their client how their supervisor presents to them. This provides the supervisor

with important information regarding supervisee behaviour with clients, and provides opportunity for modelling of effective behaviours. Indeed the fostering of the supervisory alliance has been advocated as a key method for supervisors to help develop the ability of their trainee supervisees to form effective therapeutic alliances (Gard & Lewis, 2008).

There are a small number of studies that have looked at parallel processes regarding alliance in therapy and supervision. Friedlander, Siegel, and Brenock (1989) investigated a number of parallel processes in a single client-therapist-supervisor triad. The researchers found congruent opinions regarding session evaluations, and parallel patterns of self-presentation in supervision and in therapy. Furthermore, alliances in supervision and therapy were characterised as friendly, supportive, and lacking in conflict. However although supportive of parallel processes of alliance, it must be noted that this was a single case study. Replication with other relationships is therefore required.

In a methodologically complex investigation, Patton and Kivlighan (1997) looked at the relationship between supervisee ratings of the supervisory alliance and client ratings of the therapeutic alliance over 4 sessions (therapy and supervision). Using hierarchical linear modelling, the researchers were able to control for variance attributable to the effects of time, and the supervisor providing supervision. Results revealed that for client ratings of the therapeutic alliance, 26% of rating variance was attributable to time, 65% to supervisee (therapist), and just 9% to the supervisor. When supervisee ratings of the alliance were added to the model, results revealed a

significant correlation between client therapeutic alliance ratings and supervisee supervisory alliance ratings (.66).

In a more recent study, Reese, Usher, Bowman, Norsworthy, Halstead, et al (in press) took measures of trainee therapist ratings of the supervisory alliance, as well as measures of their clients' ratings of the therapeutic alliance. The researchers found that scores on the alliance measures were significantly related (r=.89), and concluded that the quality of the supervisory alliance appeared to be related to the quality of the therapeutic alliance.

The results of these studies highlight the potential impact of the supervisory alliance on therapeutic alliance. Given the previously discussed importance of the therapeutic alliance, the supervisory alliance should be seen as a real priority. Patton and Kivlington (1997) suggest that the fostering of a strong supervisory working alliance is a key task for supervisors when entering into a new supervisory contract. Part of this fostering may involve an awareness of factors that can impact upon it.

### *Factors Affecting the Supervisory Alliance*

There are a number of factors that have been found to affect the alliance in supervision. One such factor is the evaluation process within supervision. Lehrman-Waterman and Ladany (2001) developed a self-report measure to assess the supervisee's experience of evaluation in supervision: the Evaluation Process within Supervision Inventory[3]. The measure tapped experience of goal setting and gaining feedback in order to determine the effectiveness of the evaluation process. As part of scale development, the authors found a significant positive relationship indicating that the supervisory

[3] This measure will be fully described and critically appraised later in this review

alliance may be stronger when supervisors provide clear and specific feedback regarding supervisee strengths and weaknesses.

There is some evidence to suggest that attachment style may impact on the supervisory alliance. Research has shown that congruence between self-reported attachment style and perceptions of supervisor attachment style has a significant impact on ratings of the supervisory alliance (Riggs & Bretz, 2006). An investigation into the impact of two dimensions of attachment, anxiety and avoidance, found that high supervisee attachment-related anxiety was associated with lower supervisee ratings of the supervisory alliance (Bennett, BrintzenhofeSzoc, Mohr, & Saks, 2008). In a more recent investigation examining the impact of both supervisor and supervisee perceptions, Smith (2009) found that supervisor attachment anxiety and supervisee attachment avoidance were both associated with lower ratings of the supervisory alliance. These findings indicate that attachment style may have a significant impact on the supervisory alliance. Consideration of attachment style may therefore require attention when there are salient difficulties with the supervisory alliance.

Experience of conflict can also affect the supervisory alliance. As previously mentioned, conflict may be an inevitable part of supervision, which can be overcome with a strong alliance. However unresolved conflict can be a damaging experience (Nelson & Friedlander, 2001). Gray, Ladany, Walker, and Ancis (2001) investigated the effects of counterproductive events in supervision with a sample of thirteen psychotherapy trainees. Most counterproductive events were attributed to their supervisor not attending to their thoughts and feelings. These events led to a weakening of the

supervisory alliance and a reduction in supervisee disclosure. Furthermore it was reported that the trainees did not feel able to talk to their supervisor about the counterproductive event so that it could be worked through.

The resolution of ruptures in supervision is seen as a part of the supervisee's education, with each party having a responsibility to be aware of factors that may impact on their relationship and openly discuss discomfort and disagreement (Mueller & Kell, 1972). Nelson, Barnes, Evans, and Triggiano (2008) found that key features of supervisors who were nominated as being exceptional were openness to conflict, a focus on establishing a strong supervisory alliance, and gaining regular feedback from their supervisees.

In summary it is apparent that clarity in evaluation can positively effect the supervisory alliance. Attachment style also appears to be an important consideration. The experience of conflict can have both positive and negative effects. However this effect appears to be governed by the condition of the alliance, and the degree to which there is a culture of feedback in the supervisory dyad. Openness to feedback, and mechanisms through which feedback can occur needs to be present.

## A Culture of Feedback

### *Alliance Feedback in Therapy*

There is now major interest in gaining feedback from clients in therapy. An increasing body of research has found that openness and mechanisms for feedback may be beneficial to therapeutic outcomes. In a meta-analysis of three studies, Lambert et al. (2003) found that the provision of ongoing

outcome information to therapists of clients identified as early non-responders to treatment resulted in fewer negative outcomes, more clinically significant change, and less treatment dropout. This was found when compared to outcomes for matched clients whose therapists had not been provided with this information.

Whipple et al. (2003) added to the above protocol by providing some therapists with ongoing information about their clients' ratings of the therapeutic alliance and extra-therapeutic information via a clinical support tool. For matched groups of clients identified as early non-responders, significantly greater therapeutic gains were made by clients whose therapists had received both outcome feedback and the clinical support tool, compared to outcome alone or no feedback.

Harmon et al. (2007) conducted a similar study, but randomly assigned clients to the feedback condition, and investigated the outcome of giving outcome feedback to both therapist *and* client. The research replicated the effect of significant additional treatment gains for early non-responding clients whose therapist had received outcome information and the clinical support tool compared with outcome alone or no feedback. Interestingly no additional effects were found when providing outcome feedback to both therapist *and* client compared to therapist alone. This result was replicated again in another recent study investigating the effect of immediate versus delayed feedback (Slade, Lambert, Harmon, Smart, & Bailey, 2008).

More recently, the use of very brief measures designed to tap the client's views of their therapeutic progress and their view of the therapeutic alliance has been investigated. Reese, Norsworthy, & Rowlands (2009)

investigated the effect of using the Partners for Change Outcome Management System (PCOMS: Miller & Duncan, 2004). This involves asking clients in therapy to complete the Outcome Rating Scale (ORS: Miller, Duncan, Brown, Sparks, & Claud, 2003) at the beginning of each therapy session to provide the therapist with outcome/therapeutic progress feedback, and the Session Rating Scale (SRS: Duncan et al., 2003) at the end of each session to provide the therapist with feedback about the therapeutic alliance. Reese et al. (2009) compared clients who were asked to complete the PCOMS measures with clients who were not asked to provide this feedback. The authors found that clients who provided feedback using the PCOMS achieved statistically significantly greater treatment gains, were more likely to achieve reliable change, and reliable change was achieved in fewer sessions, compared to clients who were not asked to provide feedback.

Anker, Duncan, & Sparks (2009) investigated the impact of using the PCOMS in couples therapy using multilevel modelling in order to account for variance nested within therapist-couple relationships. The authors found that couples who had been asked to provide feedback using the PCOMS achieved significantly greater improvement, with almost 4 times as many couples achieving clinically significant change.

The use of feedback mechanisms in therapy appears to be important. Indeed the monitoring of clients' views of ongoing treatment and the therapeutic alliance is advocated by the American Psychological Association's Division 29 taskforce on empirically supported relationships (Ackerman et al., 2001). It is apparent that the provision of outcome feedback can add to potential treatment gains.

Furthermore, the addition of feedback on the therapeutic alliance may further these gains. However the exact role of therapeutic alliance feedback in the above studies is unknown. Studies employing the clinical support tool included more information than just alliance feedback, and studies using PCOMS did not separately investigate the effects of the ORS and SRS. Despite this, given the impact that the therapeutic alliance can have on treatment outcome, which was discussed earlier, it is likely that the provision of alliance feedback to therapists is useful. If alliance feedback is useful, it is important to consider mechanisms for this feedback in real-life clinical practice. Measures of the alliance have been developed, have been used in research, and are one method of providing this feedback in practice.

### *Alliance Measures in Therapy*

The study of the therapeutic alliance has led to the development of various measures that have been used in studies investigating the relationship between alliance and outcome. It is beyond the scope of the present document to fully discuss measures of the therapeutic alliance. Appendix 1 provides a list of available measures for reference.

Owing to the fact that many of the therapeutic alliance measures were developed for research, they are typically lengthy, and therefore have limited clinical utility in providing ongoing feedback. Even the shorter measures of ten to twelve items may not be brief enough. Brown, Dreis, and Nace (1999) found that clinicians considered any measure taking longer than 5-minutes to administer, score, interpret, and feed back as not feasible for clinical work. This suggestion was validated by the finding that compliance rates for the completion of the ORS, which takes less than 1-minute to complete, were

86%, while compliance rates for the 45-item Outcome Questionnaire (OQ45: Lambert & Finch, 1999) were just 25% (Miller et al., 2003).

In response to the need for a brief sessional measure to tap the therapeutic alliance, Duncan et al. (2003) developed a short version of Johnson's (1995) session rating scale with just 4-items. This version, the SRS, was based on Bordin's (1979) 3-factor model of the therapeutic alliance, but incorporated Gaston's (1990) concept of the *client's theory of change*, and Hatcher and Barend's (1996) *confident collaboration and expression of negative feelings*. The SRS is designed to be used at the end of every session in order to provide the therapist with feedback about the client's view of the therapeutic alliance. This type of measure could clearly be used in real-life practice to provide ongoing alliance feedback.

Another measure that shares the same clinical utility is the Agnew Relationship Measure – 5-item version (ARM-5). The ARM-5 was designed as a single factor scale consisting of 5 questions designed to tap the therapeutic alliance. Respondents are required to indicate their agreement with 5 statements on 7-point likert scales (1 = strongly disagree, 7 = strongly agree). The ARM-5 has recently been developed and information regarding its development and psychometric properties were not available at the time of writing. However the ARM-5 has been recently reviewed in terms of its usefulness in the NHS (Unsworth, 2008). This study found that clients were happier to use the ARM-5 than therapists.

As previously noted, there is good evidence to suggest that provision of outcome feedback to therapists about their clients' progress may improve therapeutic outcomes. It is also the case that feedback on the client's view of

the therapeutic alliance may provide additional therapeutic benefits, which is unsurprising given the importance of the therapeutic alliance. The alliance construct is also implicated to be important in clinical supervision. However there is currently no research that has looked at the effect of providing feedback on the alliance in supervision. If such research were to be commissioned, it would be important to consider what measures exist that could provide feedback on the supervisory alliance and whether they are suitable.

### *Alliance Measures in Supervision*

There have been a small number of measures developed to tap the supervisory alliance. These measures vary somewhat in terms of their theoretical underpinnings. How the author of each measure conceptualises the supervisory alliance has a significant influence on how the supervisory alliance is measured. However the measurement of this construct assumes that the theoretical bases of the supervisory alliance are valid, and that alliance questions based on these theories are meaningful. This is a common issue in psychometrics, where instruments are designed to tap latent variables.

Despite this issue, the available measures have been used in research investigating this construct. The strengths and weaknesses, as well as the clinical utility of these measures is particularly important to the present research. The following section will review available supervisory alliance measures in addition to four measures tapping factors related to the alliance: role conflict and role ambiguity, the evaluation process in supervision, satisfaction with supervision, and supervision quality.

### *Relationship Inventory (Schact, 1986)*

The Relationship Inventory (RI) is a revised version of the 92-item Barrett-Lennard Relationship Inventory (Barrett-Lennard, 1962), which measured client perceptions of the presence of therapeutic facilitative conditions. These conditions were based on the Rogerian (Rogers, 1957) conditions of *regard, unconditionality, empathic understanding,* and *congruence*, along with Barrett-Lennard's own *willingness to be known* condition. The measure has undergone a number of revisions (e.g. Barrett-Lennard, 1969), although it is Dalton's (1983) 64-item revision that Schacht based the RI upon. Scale construction involved the rewording of items to fit the supervisory context.

The RI requires supervisees to indicate the degree to which they believe their supervisor provides particular facilitative conditions embedded in statements on a 6-point likert scale. The measure comprises the 5 scales of the original Barrett-Lennard (1962) measure in 40 items. Psychometric data was obtained by asking 152 participants to retrospectively complete the measure for supervisors who they believed contributed most and least to their therapeutic effectiveness (Schacht, Howe, & Berman, 1988). Internal consistency was calculated using Cronbach's alpha, which revealed consistency of the whole scale to be .92, and acceptable consistency of the 5 scales ranging from .72 to .92. Principal components analysis revealed one major factor contributing for 61.1% of the variance for supervisors *most* useful, and 53.3% for supervisors rated as *least* useful. The order of strength of loadings for each scale was *congruence, empathic understanding, regard, willingness to be known, and unconditionality* (Schacht et al., 1988).

This measure was recommended for use in research due to the presence of psychometric analysis (Ellis & Ladany, 1997). However the measure may not be valid for rating current supervisory relationships. Another major issue with the RI is that it is based on a theory of personality change within psychotherapy (Rogers, 1957). Personality change or even therapy is not the business of supervision, and these factors do not account for evaluation within supervision. Although the measure taps a number of compelling constructs that may be important for supervision, its sole use as a measure of the alliance in supervision may be problematic.

### *Working Alliance Inventory – Trainee Form (WAI-T: Bahrick, 1989)*

The WAI-T is a 36-item self-report measure of the supervisee's/trainee's perception of the supervisory alliance according to Bordin's (1983) theory. The measure was developed by rewording items from a measure of Bordin's (1979) therapeutic working alliance: the working alliance inventory (Horvath & Greenberg, 1989). The WAI-T's three subscales, goals, tasks, and bond, each contain 12 items and are measured by respondents rating statements about supervision on a 7-point likert scale.

Ellis and Ladany (1997) considered the WAI-T as an untested measure due to the way it was developed and a lack of psychometric data available. A primary problem with the measure is the assumption that a measure of the therapeutic alliance will simply transfer to the supervisory setting, without testing this assumption. This ignores the evaluatory and gate-keeping element of supervision that Bordin (1983) accounts for.

Some psychometric data for the WAI-T is available. Bahrick (1990) found internal consistency of the three subscales of the WAI-T to be .92 (goals), .92 (tasks), and .87 (bond). Evidence of convergent validity is shown in Ladany, Ellis, and Friedlander's (1999) work, which showed a positive relationship between WAI-T scores and measures of trainee satisfaction. Convergent validity was also shown by scores on the WAI-T being negatively related to trainee experiences of role conflict and role ambiguity (Ladany & Friedlander, 1995). Concurrent validity was demonstrated by the finding of a significant correlation between WAI-T and SRQ scores (Palomo, 2004; Palomo, Beinart, & Cooper, 2010). Recently, Ellis et al. (2007) conducted a confirmatory factor analysis on data from the WAI-T and found that the three scales were highly correlated. This led to the conclusion that the scale may be measuring a single factor. This measure appears as a useful instrument that has been employed in a range of research studies. However scale development and a relative dearth of psychometric data render its use as a sole measure of supervisory alliance questionable.

### *Supervisory Working Alliance Inventory (SWAI: Efstation et al., 1990)*

The SWAI is based on ideas from both therapy (Gelso & Carter, 1985; Greenson, 1967; Patton, 1984; Pepinsky & Patton, 1971; Robinson, 1950) and supervision (Bordin, 1983). Items were written following a comparison of the authors' theoretically driven ideas and a task analysis of behaviours in supervision conducted by a group of expert supervisors. This highlighted specific behaviours of supervisors and supervisees. The authors wrote non-parallel supervisor and supervisee scales. Each consisted of 30 likert scale

items requiring respondents to rate the degree to which target behaviours were performed in supervision.

Psychometric analysis was conducted on responses on the SWAI, the Supervisory Styles Inventory (SSI: Friedlander & Ward, 1984) and the Self Efficacy Inventory (SEI: Friedlander & Snyder, 1983) from 185 supervisors and 178 clinical or Counselling Psychology trainees. Exploratory factor analysis and scree test on the SWAI resulted in a 3-factor solution for the supervisor scale, and a 2-factor solution for the supervisee scale, which were found to be stable according to Tabachnick and Fidell's (1983) criteria. Seven items were eliminated from the supervisor version, and 11-items were eliminated from the supervisee version of the SWAI following factor analysis. This resulted in a 23-item supervisor and a 19-item supervisee form of the SWAI. Supervisor factors were labelled *client focus*, *rapport*, and *identification*. Supervisee factors were named *rapport* and *client focus*.

Ellis and Ladany (1997) criticised the psychometric properties of the SWAI. Indeed internal consistency coefficients for the supervisor scale were .71 for *client focus*, .73 for *rapport*, and .77 for *identification*. Coefficients for the supervisee scale were .90 for *rapport* and .77 for *client focus*. Therefore only *rapport* on the supervisee scale has adequate internal consistency for a scale measuring a single factor. Within dyad correlations on both forms of the scale ranged from non-significant to significant but modest (.03 to .36). The authors suggested that this indicated lack of agreement regarding the alliance. However it may also be the case that the two forms measure different constructs (Ellis & Ladany, 1997).

Estimates of convergent and divergent validity were made by comparing SWAI ratings to ratings on the SSI and the SEI. The results revealed a moderate relationship between supervisor and supervisee *client focus* scales on the SWAI and the *task oriented* scales on the supervisor (.50) and supervisee (.52) forms of the SSI. However low correlations were found between SWAI *client focus* and the SSI's *attractive* (supervisor .20; supervisee .04) and *interpersonally sensitive* (supervisor .30; supervisee .21) scales. The *attractive* and *interpersonally sensitive* scales on the SSI were also moderately to highly correlated with *rapport* on both supervisor and supervisee forms, and *identification* on the supervisor form of the SWAI. *Rapport* on the SWAI did not correlate with the *task oriented* scale of the SSI. Finally, SWAI *rapport* and *client focus* significantly predicted SEI ratings.

Despite claims of convergent and divergent validity, relatively low internal consistency coefficients for subscales tapping single factors may bring the reliability of the SWAI into question. Further testing is therefore required.

## *Role Conflict Role Ambiguity Inventory (RCRAI: Olk & Friedlander, 1992)*

The RCRAI assesses trainee Psychology Counsellors' experience of role conflict and role ambiguity. Role conflict occurs when an individual is expected to perform mutually opposing/competing behaviours; role ambiguity occurs when an individual experiences a lack of clarity regarding their role. Scale items were constructed following content analysis of semi-structured interviews with 15 supervisors and trainees enquiring about their experience

of role issues within supervision. Ratings of initial items by an expert panel led to a scale consisting of 19 role ambiguity items, and 10 role conflict items.

Psychometric evaluation of the scale was based on the responses of 240 doctoral Counselling or Clinical Psychology trainees who completed the RCRAI as well as the Trainee Personal Reaction Scale (Holloway & Wampold, 1984) to measure supervision satisfaction, the Job Descriptive Index (Smith, Kendall, & Hulin, 1969) to measure job satisfaction, and the State Trait Anxiety Inventory (Spielberger, Gorsuch, Lushene, Vagg, & Jacobs, 1983) to measure work related stress.

Principal components analysis, scree test, and considerations of parsimony and interpretability led to a 2-factor solution, which was supported by factor rotation. Internal consistency estimates using Cronbach's alpha revealed coefficients of .91 for role ambiguity and .89 for role conflict. Convergent validity was shown through a significant inverse relationship between the RCRAI scales and the measure of supervision satisfaction and job satisfaction. The results also demonstrated a significant positive relationship between RCRAI scores and the measure of work related stress.

The RCRAI was recommended by Ellis and Ladany (1997). However they highlighted a strong correlation between the two scales, and some items loading quite highly on both factors, which may bring its scale solution into question. Furthermore the role conflict scale may be vulnerable to floor effects, and testing with a more heterogeneous group of participants is needed. Despite this, the RCRAI provides a relatively sound measure of these constructs.

### *Evaluation Process within Supervision Inventory (EPSI: Lehrman-Waterman & Ladany, 2001)*

The EPSI measures factors associated with effective evaluation within supervision. Item writing was theoretically driven and resulted in 21 items, which were then rated by 6 expert judges for the extent to which they reflected goal setting or feedback. Goal setting and feedback scales were formed based on mean ratings. Respondents are required to rate their agreement with a series of statements on 7-point likert scales.

Psychometric evaluation was based on the responses of 274 Clinical or Counselling Psychology trainees on the EPSI as well as the WAI-T, Supervisory Satisfaction Questionnaire (SSQ: Ladany, Hill, Corbett, & Nutt, 1996), and the SEI. Confirmatory factor analysis of EPSI responses revealed a moderate fit to the 2-factor model. Internal consistency based on Cronbach's alpha revealed coefficients of .89 for goal setting and .69 for feedback. Predictive validity was demonstrated through a significant positive relationship between ratings on both scales of the EPSI and WAI-T. Significant positive relationships were also found between ratings on both scales of the EPSI and the Self Efficacy Inventory. Finally, analysis revealed highly significant positive relationships between ratings on both scales of the EPSI and ratings on the SSQ. These demonstrate that the EPSI appears to have sound predictive validity.

Although the EPSI appears to have sound predictive validity, it may be important to investigate validity using a range of indices. Also, the internal consistency coefficient for feedback is somewhat concerning given that the

scale should be measuring a single factor. Further investigation of this measure is therefore required.

### *Supervision Outcomes Survey (SOS: Worthen & Isakson, 2003)*

The SOS was designed as a measure of supervisee satisfaction with supervision. However items appear to focus on the supervisory relationship. The SOS is a 20-item measure whereby respondents are requested to rate their agreement with statements describing supervision on 7-point likert scales (1 = not at all, 7 = greatest degree possible). SOS scores are calculated by totalling respondent ratings.

In a recent study that utilised the SOS, internal consistency coefficients were calculated to be between .92 and .98 (Reese et al., in press). Worthen and Isakson (2003) presented trainee data from a year of supervision on the SOS and supervisor and trainee versions of the SWAI. Mean total ratings on both SOS and SWAI followed a similar increasing pattern over the year. It has been suggested that this demonstrates construct validity (Reese et al., in press). However construct validity is a more complex process requiring multiple measurements and a priori hypotheses regarding a measure's psychometric properties.

Although some psychometric data for the SOS is available, this is extremely limited. There is a lack of information regarding the theoretical basis of the scale, how scale items were generated, and any factor analyses. Furthermore, data on test re-test reliability, convergent validity, divergent validity, or predictive validity are not available. The measure has not yet been

widely used in published literature. Further research on the SOS is therefore needed.

### *Supervisory Relationship Questionnaire (SRQ: Palomo, 2004; Palomo et al., 2010)*

Palomo and colleagues (Palomo, 2004; Palomo et al., 2010) based the SRQ on Beinart's (2002) theory of the supervisory relationship. Items were written based on this theory, but the researchers added in items to reflect other areas of the supervision literature. The original scale was 111 items. Psychometric evaluation of the scale was based on responses on the SRQ and the EPSI, RCRAI, WAI-T, RI, and a modified version of the scale used by Friedlander and Ward (1984) to assess indices of supervisory outcome. Participants were 284 UK Clinical Psychology trainees.

Principal components analysis and scree test revealed a 6-factor solution accounting for 65.3% of the variance. Items loading onto single factors at greater than .4 were retained, which resulted in a 67-item scale. The six factors were labelled: (1) *safe base,* (2) *practicalities of supervision,* (3) *supervisor's commitment to supervision,* (4) *reflective education,* (5) *supervisor as a role model,* (6) *formative feedback*.

Internal consistency based on Cronbach's alpha revealed high internal consistency for all 6 subscales (range .87 - .97), and .98 for the whole measure. High measure reliability is obviously desirable. However such high internal consistency for the whole measure may indicate the measurement of too narrow a range of factors (Cattell & Kline, 1977). Test re-test reliability

revealed a coefficient of .97. Unfortunately such high consistency may result in the measure not being sensitive to change.

Concurrent validity of the SRQ was shown by significant positive correlations with ratings on the WAI-T and the Relationship Inventory. Convergent validity was demonstrated with significant correlations between the SRQ and the EPSI. Convergent validity was also shown with a significant negative relationship between scores on the RCRAI and SRQ. Predictive validity was demonstrated by a significant positive relationship between SRQ scores and ratings of supervisory outcome/effectiveness.

In conclusion, the SRQ appears to be a valid and reliable measure. However very high overall internal consistency may indicate that the scale is measuring a narrow construct range. Furthermore high test re-test reliability may indicate that the measure is not sensitive to change. This, along with the scale length, reduces the clinical utility of the measure.

### *Questionnaire to Evaluate Supervision (SSB: Zarbock et al., 2009)*

Zarbock et al. (2009) proposed the need for a measure that can regularly evaluate the quality of single supervision sessions. The SSB is based on Grawe's (1999) definition of successful psychotherapy, which implicates the therapeutic relationship, problem-solving, and clarifying motives as central. Zarbock adapted therapist and client forms of the 12-item STEP questionnaire (Krampen, 2002), which is designed to measure therapy session quality in accordance with Grawe's (1999) theory. The supervisor and supervisee forms of the SSB each have 12-items, 5 tapping the clarifying perspective, 4

tapping the problem-coping perspective, and 3 tapping the relationship perspective. Respondents are required to rate their agreement with statements about the supervision session on 7-point likert scales (1 = not true at all, 7 = totally true).

Psychometric analysis was based on questionnaires from 90 supervisory dyads. Principal components analysis of the supervisee form revealed 1 strong factor, termed the relationship factor, and a less strong factor termed the clarifying factor. Analysis of the supervisor form revealed 3 factors matching the measure's subscales: clarifying, problem-coping, and relationship. Cronbach's alpha coefficients for the supervisee form revealed acceptable internal consistency for the subscales and whole measure. Analysis of the supervisor form revealed good internal consistency for the clarifying scale and the whole measure, but relatively low internal consistency for problem-coping and relationship scales. The authors demonstrated concurrent validity of the measure by finding predicted positive correlations between subscales of the SSB and 3 additional questions designed to assess satisfaction with supervision.

Although the SSB is designed to measure the quality of supervision sessions, many of the items could be regarded as questions related to the supervisory alliance. The SSB is an exciting measure because it is specifically designed to evaluate single supervision sessions. However there are a number of problems with this measure. The SSB is based on a theory of successful therapy, which does not account for the evaluatory component present in supervision. Data relating to the SSB's sensitivity to change is not available, which is important if it is to be used on a sessional basis. Although

the measure is brief, 12-items may prove too many for sessional use. The authors' calculation of concurrent validity is questionable. Not only do supervision quality and supervisory satisfaction refer to different constructs, the authors employed three questions to tap supervisory satisfaction rather than employ an established measure such as the SSQ. Finally, data on the measure was gained from behaviourally oriented therapists in Germany and their trainees, thus limiting the wider applicability of the findings of the study.

### *The Brief Supervisory Alliance Scale (BSAS: Rønnestad & Lundquist, 2009)*

Rønnestad and Lundquist (2009) based the BSAS on Bordin's (1979) conceptualisation of the therapeutic alliance, the Generic Model of Psychotherapy (Orlinsky & Howard, 1987), their own clinical and research experiences, models and theories of supervision, and existing supervision measures. The authors constructed 12-item parallel forms for supervisor and supervisee. However research on the supervisor form was yet to be completed at the time of writing the present thesis.

Principal components analysis of the supervisee form revealed 1 strong factor, labelled the bond factor, which accounted for 59% of the variance, and a second factor labelled co-action that accounted for 9% of the variance. Internal consistency calculated using Cronbach's alpha was .91 for bond, .93 for co-action, and .94 for the whole scale. Concurrent validity of the BSAS was claimed due to its positive correlations (Pearson's r: bond =.82, co-action = .79, total = .87) with a yet unpublished measure of learning and satisfaction in supervision. However supervisory alliance and learning and satisfaction

are not the same constructs, and therefore this finding cannot demonstrate concurrent validity. The predictive validity of the BSAS was demonstrated through positive significant correlations with a measure of work engagement, the Utrecht Work Engagement Scale (UWES-17: (Shaufeli & Bakker, 2003). However although correlations were significant (between .15 and .23), they were modest, especially considering the sample size in this study (n=600).

Rønnestad and Lundquist (2009) suggest that the conceptual validity of the BSAS is sufficient to allow its use in supervision to facilitate discussion about the supervisory process. The BSAS is therefore implicated as an instrument for providing feedback. However, although the BSAS has only 12 items, it may not be brief enough to be used on a sessional basis. No data is available to indicate whether the BSAS is sensitive to change, which would be important for a measure that is regularly used to provide feedback. The BSAS has impressive internal consistency. However it is argued here that further research is needed to more convincingly demonstrate the measure's validity.

## *Summary*

Measures of the supervisory alliance currently available have made a useful contribution to the research field. However it is clear that methodological and psychometric questions can be posed for all of them. It is argued here that the most promising measure is the SRQ. However its high test re-test reliability and sheer length renders it unsuitable for the purpose of providing ongoing feedback on the supervisory alliance. The BSAS is also a promising measure, particularly given its brevity. However it may be questionable whether the BSAS could be administered, scored, and

interpreted within the 5-minute target period (Brown et al., 1999). Furthermore, more research utilising readily employed measures of the supervisory alliance and related constructs is needed to investigate the validity of this measure. Finally, an indication of its sensitivity to change is needed in order to be able to judge whether it could be a suitable instrument for providing regular feedback.

The provision of ongoing outcome (Lambert et al. 2003) and alliance feedback (Harmon et al., 2007; Slade et al., 2008; Whipple et al., 2003) is associated with increased therapeutic gains. Soliciting feedback from supervisees is highlighted as a key behaviour of supervisors who are regarded as being exceptional (Nelson, Barnes, Evans, & Triggiano, 2008). Given that the alliance between supervisor and supervisee appears to have a significant impact on the supervisee (Ellis, 1991; Ladany, Hill, Corbett, & Nutt, 1996; Ramoz-Sanchez, Esnil, Riggs, Wright, Goodwin, Touster, et al. 2002), and may also impact on the supervisee's clients (Friedlander et al., 1989; Patton & Kivlighan, 1997; Reese et al., 2009), feedback on the alliance in supervision should be regularly sought.

The need for feedback mechanisms to be in place is further highlighted by research suggesting that supervisors' and supervisees' opinions of the supervisory alliance may not always be congruent. In their psychometric investigation of the SSB measure of the quality of supervision, Zarbock et al. (2009) found that inter-correlations between scores on the complete measure and respective subscales of the supervisor and supervisee forms were low. The only inter-correlation to achieve statistical significance was the clarifying subscale, and this was found to be low. A similar pattern was found in the

construction of the SWAI (Efstation et al., 1990). The authors discuss possible reasons for this finding. However it appears that supervisors are not always aware of what their supervisees are experiencing during supervision. This makes the development of a culture of openness and direct feedback in supervision even more important.

Perhaps the best way of creating this culture of feedback would be the introduction of an appropriate measure of the supervisory alliance that could be used to generate alliance feedback on a sessional basis. However it is argued here that no existing measure is suitable for this purpose. The development of a measure of the supervisory alliance that is similar to the SRS (Duncan et al., 2003) and can be used each session is therefore required.

## Research Question

Can a reliable and valid short-form measure of the supervisory alliance, which offers the clinical utility to be administered at each supervision session as a mechanism for providing ongoing supervisory alliance feedback be developed?

## Research Aims

1. Develop a short-form measure of the supervisory alliance that can be administered, scored, and interpreted quickly in order to provide sessional feedback.
2. Establish the psychometric properties of the new measure.

# Ethics Approval

Ethics approval was sought from the Leeds Institute of Health Sciences /Leeds Institute of Genetics, Health and Therapeutics Research Ethics sub-committee. This was deemed appropriate due to the aim that all potential participants would be invited to participate in the present research because of their UK trainee Clinical Psychologist status and thus their registration at a UK University. Following submission of a research proposal, ethics was approved on the 2nd March 2009.

# Study 1: Scale Construction

## Method

The development of the Leeds Alliance in Supervision Scale (LASS) began through the generation of an experimental measure consisting of suitable items that measure the aspects of the supervisory alliance previously described in the literature. Analyses conducted on data from this experimental measure led to the final selection of items for the LASS.

### *Item Generation*

An experimental measure was generated from an initial pool consisting of all of the items from existing measures of the supervisory alliance detected by the literature review. In order to more explicitly account for the evaluatory process within supervision, items were also considered from the Evaluation Process within Supervision Inventory (EPSI: Lehrman-Waterman & Ladany, 2001).

An alternative approach would have been to write new items to reflect the relevant literature. However this method has been employed numerous times in developing the existing measures: measures of the supervisory alliance have been developed based upon theories relevant to psychotherapy (e.g. Relationship Inventory [RI]: Schacht, 1986) and also measures developed specifically relating to theories of the alliance in supervision (e.g. Supervisory Relationship Questionnaire [SRQ]: Palomo, 2004; Palomo et al. 2010). Given the number of available items, and without the generation of a new theory of

the supervisory alliance, an attempt to generate novel items from existing theory seemed unnecessary.

## *Existing Measures Used in Item Generation*

The measures employed in item generation were all reviewed in chapter 1. The full measures are also reproduced in appendix 2. Therefore only brief details of the measures included in item generation will be given here. Measures were chosen because they were deemed to *explicitly* aim to measure the supervisory alliance, the evaluatory process in supervision, and were available at the time of Study 1 completion.

### *Relationship Inventory (RI: Schacht, 1986)*

The RI is a 40-item measure containing 5 subscales designed to measure the presence of facilitative conditions that are related to the alliance in supervision. Respondents indicate their agreement with a series of statements on 6-point likert scales. Principal components analysis of the scale led to a single factor solution. Internal consistency calculated with Cronbach's alpha was found to be .92 for the whole inventory, with internal consistency for the 5 subscales ranging from .72 to .92 (Schacht et al., 1988).

### *Working Alliance Inventory – Trainee Form (WAI-T: Bahrick, 1990)*

The WAI-T is a 36-item measure that taps the supervisory alliance from the supervisee/trainee's perspective. Confirmatory factor analysis of data from the WAI-T led to conclusions that the scale may be measuring a single factor construct (Ellis et al., 2007). Internal consistency of the three subscales

was found to be .92 (goals), .92 (tasks), and .87 (bond). The WAI-T has demonstrated convergent validity due to the finding that scores have a positive relationship with measures of trainee satisfaction (Ladany et al., 1999). Convergent validity was also shown by the finding of an inverse relationship between WAI-T scores and ratings on a measure of role conflict and role ambiguity (Ladany & Friedlander, 1995).

### *Supervisory Working Alliance Inventory – Supervisee Form (SWAI: Efstation et al., 1990)*

The SWAI supervisee form is a 19-item measure whereby respondents rate the degree to which target behaviours related to the supervisory working alliance are performed in supervision. Ratings are made using likert scales. Exploratory factor analysis and scree test conducted on data from the supervisee form led to a 2-factor solution: rapport and client focus. Internal consistency coefficients were calculated to be .90 for rapport and .77 for client focus. Validity of the measure was also demonstrated through its relationship with measures of supervisory style and self-efficacy (Efstation et al., 1990).

### *Evaluation Process within Supervision Inventory (EPSI: Lehrman-Waterman & Ladany, 2001)*

The EPSI is a 21-item inventory that taps information regarding the evaluation process within supervision. Respondents are required to rate their agreement with a series of statements relating to whether goal setting or feedback behaviours were present in supervision, using 7-point likert scales. Confirmatory factor analysis revealed a moderate fit to a 2-factor solution. Internal consistency calculated using Cronbach's alpha was .89 for goal

setting, and .69 for feedback. Predictive validity was shown through significant positive relationships between goal setting and feedback scales and scores on the WAI-T, ratings of self-efficacy using the Self Efficacy Inventory (SEI), and ratings of supervisory satisfaction using the Supervisory Satisfaction Questionnaire (SSQ).

#### *Supervisory Relationship Questionnaire (SRQ: Palomo, 2004; Palomo et al., 2010)*

The SRQ is a 67-item measure of the supervisory alliance from the perspective of the supervisee. Respondents are required to rate their agreement with a series of statements using 7-point likert scales. Principal components analysis and scree test revealed a 6-factor solution, which formed 6 subscales. Internal consistency using Cronbach's alpha was found to be high for all 6 subscales (range .87 - .97), and .98 for the whole measure. Test re-test reliability was found to be .97. Concurrent validity was shown through significant positive correlations between scores on the SRQ and ratings on the WAI-T and the RI. Convergent validity was shown through significant inverse correlations between SRQ scores and scores on the Role Conflict Role Ambiguity Inventory (RCRAI). Predictive validity was shown through a positive relationship between SRQ scores and ratings of supervisory outcome/effectiveness.

### *Excluded Measures*

Not all measures of the supervisory alliance were included in the process of item selection. The Supervision Outcomes Survey (SOS: Worthen & Isakson, 2003) and the Questionnaire to Evaluate Supervision (SSB: Zarbock

et al., 2009) were not included because although they both contain items relevant to the measurement of the supervisory alliance, neither was designed to explicitly measure this construct. The Brief Supervisory Alliance Scale (BSAS: Rønnestad & Lundquist, 2009) was unfortunately not available at the time of item selection.

## *Qualitative Sort of Item Pool and Selection of Items*

In order to determine which of the available items to include, it was first important to consider exactly what the item pool measures. Although all items were from measures of the supervisory alliance or the evaluation process in supervision, the included measures had subscales and factors ostensibly measuring different aspects of these overarching constructs. As the measures were all developed in different ways, there is no guarantee that the factors or subscales of each are directly comparable. Given this, it was decided not to use the subscale structure from any measure, and instead pool all individual items from each measure, then re-sort them into the themes they appear to tap.

The re-sorting of items into themes was a qualitative process inspired by thematic analysis (see Braun & Clarke, 2006). This process was conducted by the present author and Dr D Green (D.G) and Dr G Latchford (G.L), who acted as joint coders. The first stage in this process was to obtain copies of all measures of the supervisory alliance and the evaluation process in supervision noted above. The questions from each measure were then typed onto individual cards and set out in a long list. The list consisted of 194 items from the available measures. Each coder spent time reading and familiarising himself with the items in the list.

The next stage in the process was to generate initial codes for the items. Working down the list, each item was read out aloud by one of the coders, and discussion about how it should be coded took place. The initial coding of each item was subject to the agreement of all 3 coders. Disagreement was infrequent. However any disagreement was debated and resolved by the majority. Individual items were coded on the basis of important information they appeared to tap (e.g. 'Depending on his/her mood, supervisor sometimes responded to me with quite a lot more warmth and interest than s/he did at other times' <supervisor consistency>).

Following coding, all items were discussed again and were grouped into themes. The naming of themes and the position of each item in a theme was subject to the agreement of all 3 coders. Any disagreement was debated and resolved by the majority. This process led to 190 items being grouped into 12 mutually exclusive themes. Four items did not appear to fit into any theme and were therefore dropped from the analysis (see appendix 3 for detail of these items). Appendix 4 displays a sample of items from each of the 12 themes.

The next stage was to consider each item in a theme and judge how representative it was of that theme. All items in each theme were set out in a list and rank ordered. Items deemed to be most representative of a theme were placed at the top. The ranking of items was subject to the agreement of all 3 coders, and disagreement was debated and resolved by the majority. Based on these ranks, 1 or more items was selected to represent each theme.

During this analysis it was not possible to choose items to represent the theme: *positive outcome of supervision*. This was because no items sufficiently represented all items grouped in this theme. In this case a new item was written that was felt to better represent this theme. Also, it became apparent that there were many items in the *sensitivity* theme that appeared to tap understanding between supervisor and supervisee. It was difficult to select an existing item to best represent this sub-theme. Therefore a new item was written that was felt to be more representative. Once items had been selected as representative of their theme, many were slightly re-worded to increase comprehension or so that they better fit the sessional nature of the measure being constructed.

## *Experimental Measure*

The qualitative sort led to the selection of 25 items that were deemed to reflect the 12 themes identified. These 25 items were used for the experimental measure. Table 1 presents the 25 items selected in the order in which they appeared in the experimental measure, the theme they represent, and the original measure they were taken from.

**Table 1: Selected items, themes, and original measures items were taken from.**

| ***Item*** | ***Theme*** | ***Original measure*** |
|---|---|---|
| 1. My supervisor encourages me to take time to understand my clients | Understanding client's perspective | SWAI-T |
| 2. I felt able to discuss my concerns with my supervisor openly | Feeling safe/comfortable | SRQ |

*(Table continues)*

*Table 1 (continued).* Selected items, themes, and original measures items were taken from.

| ***Item*** | ***Theme*** | ***Original measure*** |
|---|---|---|
| 3. My supervisor liked seeing me | Relationship | RI |
| 4. Supervision felt like an exchange of ideas | Power | SRQ |
| 5. I felt that my supervisor was being genuine | Relationship | RI |
| 6. My supervisor was knowledgeable | Supervisor knowledge, credibility, and skills | SRQ |
| 7. My supervisor gave me regular feedback | Feedback | SRQ |
| 8. I respected my supervisor | Supervisor knowledge, credibility, and skills | SRQ |
| 9. Supervision sessions are focused | Practical arrangements for supervision | SRQ |
| 10. My supervisor makes an effort to understand me | Sensitivity | SWAI-T |
| 11. My supervisor linked theory and practice well | Supervisor knowledge, credibility, and skills | SRQ |
| 12. My supervisor appeared interested in me | Relationship | SRQ |
| 13. My supervisor encouraged me to reflect on my practice | Facilitating learning | SRQ |
| 14. Supervision sessions are structured | Practical arrangements for supervision | SRQ |
| 15. My supervisor appreciated what my experiences felt like to me | Sensitivity | RI |

*(Table continues)*

*Table 1 (continued).* Selected items, themes, and original measures items were taken from.

| ***Item*** | ***Theme*** | ***Original measure*** |
|---|---|---|
| 16. I felt comfortable working with my supervisor | Feeling safe/comfortable | SWAI-T |
| 17. My supervisor helped me identify my own learning needs | Facilitating learning | SRQ |
| 18. My supervisor's feedback on my performance was constructive | Feedback | SRQ |
| 19. My supervisor stays in tune with me during supervision | Sensitivity | SWAI-T |
| 20. My supervisor talked about his/her own thoughts/feelings | Supervisor disclosure | RI |
| 21. My supervisor was respectful of my views and ideas | Power | SRQ |
| 22. My supervisor and I understand each other | Sensitivity | New item |
| 23. Supervision was helpful to me | Positive outcome of supervision | New item |
| 24. My supervisor and I agree about the things I need to do in supervision | Contracting/goals | WAI-T |
| 25. My supervisor has a collaborative approach in supervision | Power | SRQ |

The experimental measure consisted of a series of statements for which respondents would rate their agreement using 100-point visual analogue scales. This response format was employed because of its ease of administration, its face validity (Miller et al., 2003), and its sensitivity. The range of possible responses was therefore between 0 and 2500. Items were ordered in the experimental measure so that no 2 items from the same theme appeared consecutively.

### *Questionnaire Pack*

Questionnaire packs (see appendix 5) contained written information detailing the research project, a consent form, a questionnaire on participant demographics and information about their current supervision, and the 25-item experimental questionnaire.

### *Procedure*

Directors and/or Clinical Directors at a number of UK Clinical Psychology Training Courses were contacted in May 2009. Courses were selected on the basis of personal and/or professional contacts of DG and GL being members of course staff. Permission was sought to invite trainees to participate from the Universities of Leeds, Hull, Manchester, Sheffield, Teesside, Liverpool, and Lancaster. Attempts were made to schedule dates for the author to personally visit and invite trainees' participation. Due to timing constraints this was only possible at the University of Liverpool, Lancaster University, and the University of Leeds.

An email was sent to trainees in all training years at Leeds, Liverpool, and Lancaster that included information about the research project and a consent

form. Emails were sent through administration staff to maintain the anonymity of the trainees. The email was sent at least 1-week before each visit to allow potential participants to think about the project and decide whether or not they would like to participate.

Visits were made to each course in June and July 2009. During each visit, details of the project were given verbally and trainees had the opportunity to ask questions. All trainees present at each visit were given a questionnaire pack. During visits to Lancaster and Liverpool, if trainees wished to participate in the research project, they were asked to complete the questionnaire pack, including the consent form, during the visit. When addressing trainees at the University of Leeds, trainees were given questionnaire packs and asked to return them later on the same day if they wished to participate.

Unfortunately, due to a timetable change, only a small number of trainees were able to attend the visit to Lancaster University. Participation was sought from trainees who were able to attend. For those who were unable to attend, it was agreed that questionnaire packs would be distributed to trainees by the course staff, and that the course staff would collect completed packs and return them.

Completed questionnaire packs were collated. Consent forms were removed from packs in order to maintain the anonymity of participants. Information disclosed on the demographic questionnaire and responses on the experimental measure were entered into the Statistical Package for the Social Sciences version 17 (SPSS-17) for analysis.

## Data Analytic Procedures and Rationale

Data from the experimental measure was first checked for missing values. There was only 1 missing value in the entire dataset. This value was replaced with the mean response for this item (Field, 2009).

Descriptive statistics were calculated for the dataset. Responses were then analysed using an exploratory factor analytic procedure: Principal Components Analysis (PCA). PCA was chosen because it is readily used in scale construction, and it incorporates error variance from individual items within each factor. In addition, PCA can be used when there is multicoliniarity between items, which may be a problem with the present data due to the expectation that items will be related. There is some disagreement in the literature regarding the sample size to item ratio that is appropriate for factor analytic procedures. The sample size in the present study (n = 98) is close to the suggested minimum sample size for factor analysis (Kline, 2000). The sample size to item ratio is also above the satisfactory level of 2:1 if factors are found to be clear. In order to further examine the adequacy of the sample, the Kaiser-Meyer-Olkin measure of sampling adequacy (KMO: Kaiser, 1970) was calculated.

PCA was used to reduce the data so that the items from the experimental measure could be explained by a smaller number of factors. Items loading onto factors have a common relationship. Examination of items loading onto factors allows the interpretation of what common element is being measured by each factor. Once the experimental measure can be explained by a smaller number of factors, a much briefer measure can be formed by

selecting an item or items to represent each factor and the common element that it measures.

The selection of representative items may be based on factor loadings. The item with the highest factor loading has the strongest relationship with other items in the factor. This item may therefore be regarded as a sound representative. However the item with the highest factor loading may not be the most pragmatically useful item for a brief measure of the supervisory alliance, given that the aim is for the LASS to have a very limited number of items. Qualitative consideration of what factors appear to measure, and consideration of what items most usefully represent factors is therefore important in item selection.

Factor analytic procedures can lead to the reduction of data into 1 or 2 factors. Although the LASS aims to be a brief measure of the supervisory alliance, it aims to be useful in providing feedback and should therefore be based on between 3 and 6 items. Selection of single items to represent 1 or 2 factors would therefore not meet this aim. In this case, further data analytic procedures that provide data reduction, but would allow more helpful interpretation and selection of an appropriate number of items, are needed.

Cluster analysis is based on different assumptions to factor analysis. Factor analysis aims to group items or variables into factors according to how much variance they share. Rather than grouping items or variables, traditionally, cluster analysis is used to group cases, i.e. people (Field, 2000). However it can also be used to group variables as is the case with factor analysis (Norusis, 2010). Items are clustered according to a similarity coefficient: the Euclidean distance. The Euclidean distance represents the

geometric distance between items. The smaller the Euclidean distance, the more similar the items, which leads to more similar items being clustered together.

Hierarchical agglomerative clustering uses a stepped procedure whereby each variable starts by representing a single cluster. As the analysis moves through progressive steps similar variables (based on values), and later clusters, are grouped together to form larger clusters (Norusis, 2010). As the process continues, clusters become larger, and a cluster tree is formed. This cluster tree is particularly useful to the present study. If the data is reduced to too small a number of factors in factor analysis, a hierarchical cluster tree can be used to group similar variables/items. These clusters can then be labelled according to what the items within them appear to measure, and representative items can be chosen.

# Results

## *Participants*

Participants were all trainee Clinical Psychologists from 3 UK universities. The total response rate was 58.7%. The mean age for the sample who disclosed this information (n = 96) ranged from 24 to 44 years, and had a mean of 28.3 years (SD = 3.22). The average length of time participants had been with their current supervisor was 3.4 months (SD = 2.7, range = 1 to 12). At the time of participation, 92.8% of the sample had received supervision in the last week, with all participants having had supervision in the last 3 weeks. Table 2 displays frequency and percentage data describing the sample.

**Table 2: Frequency and percentage data for the sample in study 1.**

| | ***Frequency (n)*** | ***Percentage (%)*** |
|---|---|---|
| *n* | 98 | 100 |
| *Training institution* | | |
| Leeds | 37 | 37.8 |
| Liverpool | 34 | 34.7 |
| Lancaster | 23 | 23.5 |
| Blank | 4 | 4.1 |
| *Gender* | | |
| Male | 14 | 14.3 |
| Female | 84 | 85.7 |
| *Training year* | | |
| First | 48 | 49 |
| Second | 37 | 37.7 |
| Third | 13 | 13.3 |
| *Placement setting* | | |
| Adult | 23 | 23.5 |
| Child | 25 | 25.5 |
| Early intervention | 3 | 3.1 |
| Forensic | 1 | 1 |
| Health | 6 | 6.1 |
| Neuropsychology | 5 | 5.1 |
| Older people's service | 21 | 21.4 |
| Learning disabilities | 14 | 14.3 |
| *Supervisor gender* | | |
| *Male* | 25 | 25.5 |
| *Female* | 73 | 74.5 |

## *Descriptive Statistics*

Trainee Clinical Psychologist participants (n = 98) rated their experience of the supervisory alliance they have with their current clinical supervisors. The mean rating of the supervisory alliance on the experimental measure was 1882.4 (SD = 425.4), and the range was 344-2463. The mean rating on all 25 items in the experimental measure is higher than the mid-point rating

available (50). This has been found in the development of other measures of the supervisory alliance (e.g. Palomo, 2004; Palomo et al., 2010). The distribution of ratings of the supervisory alliance was analysed using the Kolmogorov-Smirnov (K-S) test. Participant total ratings of the supervisory alliance using the experimental measure, $D(98) = .140$, $p < .001$, was significantly non-normal. Although ratings were made across a large range of available responses, visual analysis of a histogram displaying total ratings indicated that they were positively skewed. However examination of the histogram also indicated that, although ratings were positively skewed, the shape of the histogram was similar to the bell shaped curve seen in normally distributed data displayed in a histogram. It is therefore argued that analysis using PCA is appropriate.

### *Principal Components Analysis (PCA)*

PCA was conducted on data from the 25-item experimental measure with oblique (oblimin) rotation. The KMO test of sampling adequacy revealed excellent sampling adequacy (Field, 2009), KMO = .928, and all values for individual items were > .82, which is comfortably above the acceptable .5 limit (Field, 2009). Bartlett's test of sphericity, $\chi^2(300) = 2777.863$, $p < .001$, indicated that the correlation matrix was significantly different from an identity matrix and item correlations were sufficiently high for PCA. Given the relatively small sample size (n = 98), Bartlett's test is likely to be a sufficient indicator of correlation adequacy. However the correlation matrix was examined by hand for items that correlated with a large number of other items at less than .3 (Field, 2009). Only 1 item (Q14) had many correlations at less

than .3. However it correlated with more than half of the items at above .3. It was therefore deemed appropriate to keep it in the analysis.

An analysis was run using Kaiser's criterion of 1, so that only components with eigenvalues above 1 were retained. The analysis extracted 2 components. Prior to rotation component 1 explained 64.17% of the variance, and component 2 explained 7.64% of the variance. The scree plot produced from this analysis was somewhat ambiguous, with inflections that could justify the retention of either 1 or 2 components. Oblique rotation of factors also led to the retention of 2 components with eigenvalues above 1. Stevens' (2002) table of critical values for factor loading comparison was used as a guide for interpreting the importance of factor loadings. Given the relatively small sample size (n = 98) only factor loadings above .512 were considered to be significant. Table 3 presents the factor loading of items following PCA with oblique rotation.

**Table 3: Factor loadings of items following oblique rotation.**

| | **Rotated Factor Loadings (Oblimin)** | |
|---|---|---|
| ***Item*** | ***Component 1*** | ***Component 2*** |
| 1. My supervisor encourages me to take time to understand my clients | **.736** | .021 |
| 2. I felt able to discuss my concerns with my supervisor openly | **.866** | .034 |
| 3. My supervisor liked seeing me | **.822** | -.067 |
| 4. Supervision felt like an exchange of ideas | **.851** | -.066 |
| 5. I felt that my supervisor was being genuine | **.943** | -.110 |

*(Table continues)*

*Table 3 (continued).* Factor loadings of items following oblique rotation.

| ***Item*** | ***Component 1*** | ***Component 2*** |
|---|---|---|
| 6. My supervisor was knowledgeable | **.819** | .009 |
| 7. My supervisor gave me regular feedback | **.621** | .292 |
| 8. I respected my supervisor | **.928** | -.060 |
| 9. Supervision sessions are focused | .027 | **.898** |
| 10. My supervisor makes an effort to understand me | **.869** | .029 |
| 11. My supervisor linked theory and practice well | .334 | **.603** |
| 12. My supervisor appeared interested in me | **.964** | -.147 |
| 13. My supervisor encouraged me to reflect on my practice | **.655** | .219 |
| 14. Supervision sessions are structured | -.098 | **.955** |
| 15. My supervisor appreciated what my experiences felt like to me | **.835** | -.024 |
| 16. I felt comfortable working with my supervisor | **.879** | .037 |
| 17. My supervisor helped me identify my own learning needs | **.618** | .393 |
| 18. My supervisor's feedback on my performance was constructive | **.752** | .195 |
| 19. My supervisor stays in tune with me during supervision | **.852** | .068 |
| 20. My supervisor talked about his/her own thoughts/feelings | **.550** | -.058 |
| 21. My supervisor was respectful of my views and ideas | **.905** | -.075 |

*(Table continues)*

*Table 3 (continued).* Factor loadings of items following oblique rotation.

| ***Item*** | ***Component 1*** | ***Component 2*** |
|---|---|---|
| 22. My supervisor and I understand each other | **.870** | .066 |
| 23. Supervision was helpful to me | **.566** | .419 |
| 24. My supervisor and I agree about the things I need to do in supervision | **.809** | .119 |
| 25. My supervisor has a collaborative approach in supervision | **.915** | -.098 |
| **Eigenvalues** | 15.814 | 6.329 |

*Note. Factor loadings above .512 are considered significant and are displayed in bold.*

As can be seen from table 3, all items loaded onto either component 1 or component 2 higher than .512. This indicates that all items are significant in the factor solution. It is interesting to note that 22/25 items loaded significantly onto the first component, while only 3 items loaded onto the second component. The items loading onto component 2 (Q9, Q11, Q14) focus on the practical arrangements for supervision, and the more pragmatic elements of the supervisor's knowledge and skill. All other items representing the other themes generated in the previous qualitative sort loaded onto component 1.

Due to the generic nature of component 1, it could be labelled *alliance building qualities*. Owing to the practical nature of the items in component 2, this component could be labelled *practical supervisory qualities*. However despite items in component 2 having a pragmatic quality, some items in component 1 appear to share this quality (e.g. Q7. My supervisor gave me regular feedback). The relative strength of component 1, and the ambiguous nature of the scree plot, suggests that the supervisory alliance as measured

by the experimental measure may be best described as a single factor construct. Similar findings have been found in investigations of other measures of the supervisory alliance (Ellis et al., 2007; Schacht et al., 1988).

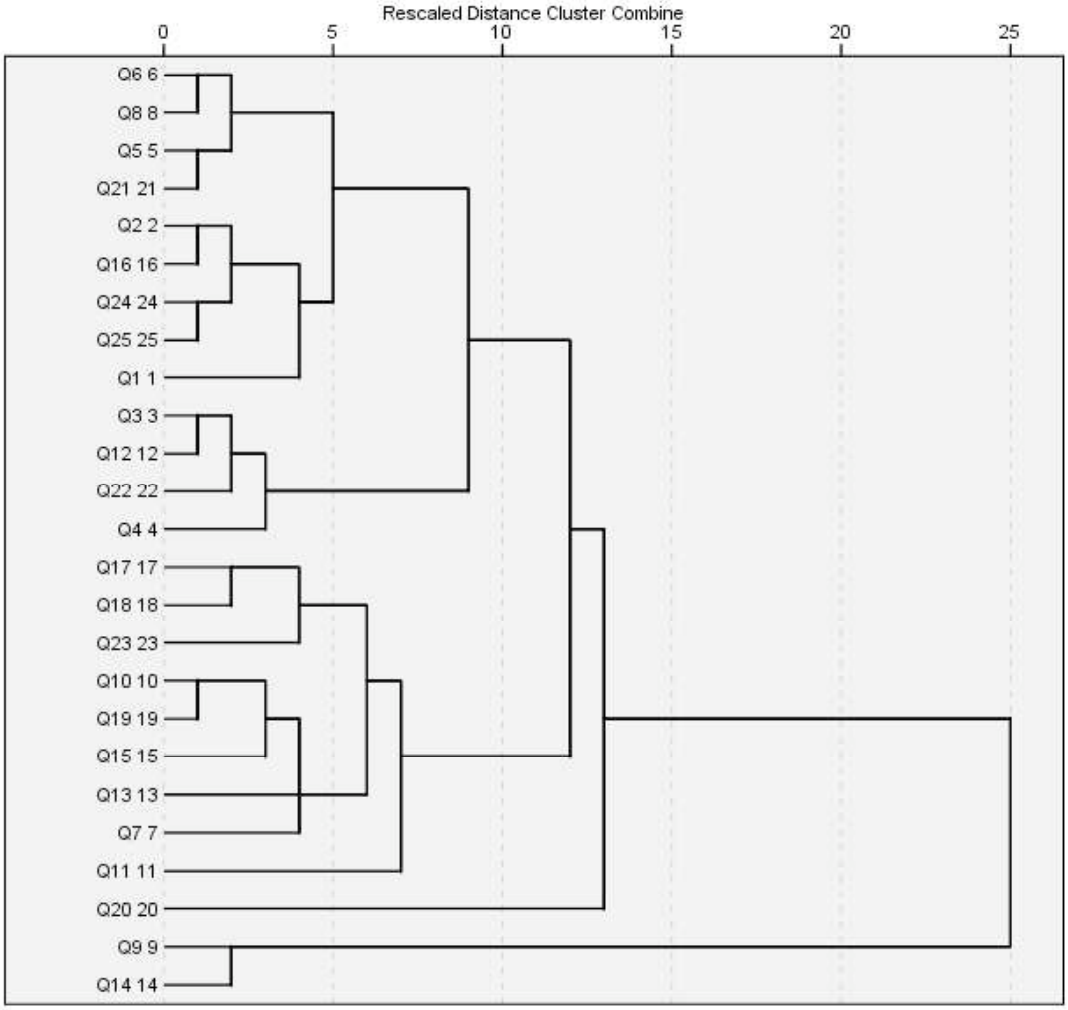
The intended purpose of conducting a PCA was to examine the factor structure of the experimental measure, and for the investigated structure to inform the selection of representative items for the LASS. The finding that the items load onto 2 components, that the second component consists of just 3 items, and questions regarding whether the supervisory alliance may be best described as a single factor construct, limited the ability for the results of the PCA to fully inform item selection. The selection of the highest loading items to represent the components in the LASS was deemed to be inappropriate. This is because the highest loading items (e.g. Q5. I felt that my supervisor was being genuine) are not necessarily the most useful for a brief measure of the supervisory alliance that is designed to provide ongoing feedback. Further analysis was therefore conducted that may allow the component/s to be broken down further, thus providing a clearer rationale for item selection: hierarchical cluster analysis.

### *Hierarchical Cluster Analysis*

Hierarchical cluster analysis was conducted on data from the 25-item experimental measure using SPSS-17. The analysis was set to cluster variables (items) using Ward's method. This method of clustering was chosen because it compiles variables into clusters so that variance within clusters is minimised and therefore within-cluster error is reduced. Standardisation across cases is sometimes recommended during cluster analysis (Field, 2000). However because all variables entered into the analysis were

measured using the same scales, and it was predicted that participants would use the scales similarly, standardisation of data was deemed unnecessary. The measure of similarity used in the analysis was the SPSS-17 default: squared Euclidean distance. The dendrogram from the analysis was subjectively analysed to determine the number of clusters (Field, 2000). Figure 1 shows the dendrogram for the hierarchical cluster analysis on data from the items of the experimental measure.

**Figure 1: Dendrogram from hierarchical cluster analysis.**




As can be seen in figure 1, Q9 and Q14 are clearly disconnected from the other items and form a separate cluster together. Interestingly, both Q9 and

Q14 were 2 of the 3 items in component 2 from the PCA. These two items were considered as 1 of the main significant clusters. The third item that loaded onto component 2 from PCA, Q11, now sits on the edge of a sub-cluster of the large cluster from this analysis. In consideration of this large cluster, in which most items were grouped, Q20 was considered to be an anomaly. This is because it has the greatest distance from all other items; as such it could not justifiably contribute to any sub-cluster formed from breaking the large cluster. Furthermore, it was agreed by consensus that Q20 (My supervisor talked about his/her own thoughts/feelings) would not be a useful item on a brief sessional measure of the supervisory alliance. It was therefore dropped. The remaining larger cluster was then clearly broken into 2 separate clusters (see figure 1: Q6 to Q4, and Q17 to Q11). Three clusters had therefore been identified. The three clusters were examined qualitatively and labelled according to the information that their member items appeared to tap. The three clusters were labelled: *approach*, *relationship*, and *meeting my needs*. Table 4 presents items in the order in which they appear in figure 1 (dendrogram), and their cluster membership.

**Table 4: Items and cluster membership.**

| ***Item*** | ***Cluster Name*** |
|---|---|
| 6. My supervisor was knowledgeable | Relationship |
| 8. I respected my supervisor | Relationship |
| 5. I felt that my supervisor was being genuine | Relationship |
| 21. My supervisor was respectful of my views and ideas | Relationship |

*(Table continues)*

*Table 4 (continued)*. Items and cluster membership

| ***Item*** | ***Cluster membership*** |
|---|---|
| 2. I felt able to discuss my concerns with my supervisor openly | Relationship |
| 16. I felt comfortable working with my supervisor | Relationship |
| 24. My supervisor and I agree about the things I need to do in supervision | Relationship |
| 25. My supervisor has a collaborative approach in supervision | Relationship |
| 1. My supervisor encourages me to take time to understand my clients | Relationship |
| 3. My supervisor liked seeing me | Relationship |
| 12. My supervisor appeared interested in me | Relationship |
| 22. My supervisor and I understand each other | Relationship |
| 4. Supervision felt like an exchange of ideas | Relationship |
| 17. My supervisor helped me identify my own learning needs | Meeting my needs |
| 18. My supervisor's feedback on my performance was constructive | Meeting my needs |
| 23. Supervision was helpful to me | Meeting my needs |
| 10. My supervisor makes an effort to understand me | Meeting my needs |
| 19. My supervisor stays in tune with me during supervision | Meeting my needs |
| 15. My supervisor appreciated what my experiences felt like to me | Meeting my needs |
| 13. My supervisor encouraged me to reflect on my practice | Meeting my needs |
| 7. My supervisor gave me regular feedback | Meeting my needs |

*(Table continues)*

*Table 4 (continued)*. Items and cluster membership

| ***Item*** | ***Cluster membership*** |
|---|---|
| 11. My supervisor linked theory and practice well | Meeting my needs |
| 9. Supervision sessions are focused | Approach |
| 14. Supervision sessions are structured | Approach |

*Note. As previously noted, item 20 was dropped following qualitative analysis of the dendrogram (figure 1)*

Following the identification and labelling of the 3 clusters, an item was chosen by consensus agreement to represent each cluster and what it appeared to tap. Item selection was made on the basis of qualitative consideration of each item and how closely it appeared to represent its host cluster, and how useful it was deemed to be for a brief sessional measure of the supervisory alliance.

## Item Selection for LASS

Qualitative consideration led to the selection of 3 items to form the LASS. These items were Q22 (my supervisor and I understand each other) to represent the *relationship* cluster, Q23 (supervision was helpful to me) to represent the *meeting my needs* cluster, and Q9 (supervision sessions were focused) to represent the *approach* cluster.

The 3 items were reworded to fit the sessional nature of the LASS. The items were compiled into the format of a measure. Response formats were visual analogue scales where participants would indicate their agreement with the statements represented by the items by placing a mark on a 10cm line. The 10cm line provided a 100-point response format for each item. Responses to the right indicated higher levels of agreement. Appendix

6 shows the original 3-item LASS measure. The LASS was then subject to a psychometric investigation in order to gain information about its reliability, validity, and sensitivity to change.

# Study 2: Psychometric Investigation of the LASS

## Method

The following section describes the methodology employed in conducting the psychometric investigation of the LASS. This includes an examination of its face validity, reliability, sensitivity to change, and validity.

### *Face Validity*

In order to gain information regarding the face validity of the measure, DG introduced the LASS at a supervision workshop in which he was speaking, in Glasgow in October 2009. The audience were asked to provide specific written feedback on the measure as part of generic feedback requested for the talk given by DG. Audience members were asked to rate how useful they might find the brief 3-item scale for soliciting feedback on trainees' experience of their supervisory sessions. Respondents rated whether they thought the measure was very useful, quite useful, don't know, a bit useless, or totally useless. Further comments were also requested.

Feedback was provided by 30 individuals. On rating how useful they thought the measure was, 11 rated it as very useful, 11 rated it as quite useful, 4 rated that they didn't know, 1 rated that they thought it was not useful, and 2 individuals did not provide a rating. This indicates that the measure could have real clinical utility for the majority of clinicians who responded. Comments made were compiled and summarised by DG. The summary was sent to the present author as a research memo, which is

displayed in appendix 7. In summary, comments made by some respondents suggested the following:

1. The description of the first item under the heading “relationship” may imply something longer-term than a single supervisory session. This may result in minimal shift between sessions.
2. Trainees giving feedback using the scale might be very wary of giving anything but highly skewed positive feedback.
3. The response format should have descriptors at each side of the visual analogue scale.

The suggestion that the descriptor, “relationship”, for the first item may be deemed to tap long-term opinion about supervision sessions, and thus may remain stable over time, was considered. Indeed the descriptors above each of the 3 items could describe the long-term alliance in supervision. However these descriptors were used to describe the key clusters of information tapped by the experimental measure, which represent the alliance construct. The descriptors are used as sub-headings to the questions, which clearly ask respondents about the supervision session they have just had (e.g. This supervision session was focused). Furthermore, such question headings are used on the Session Rating Scale (SRS: Duncan et al., 2003), which have not created any ambiguities in the clinical work of the present author when asking clients to complete this measure. The descriptors were therefore retained.

The suggestion that the scale might lead to only highly skewed positive feedback being received from trainees is an important issue. Indeed positively skewed feedback can occur when using the SRS. However the use

of a 100-point visual analogue scale as the response format means that the LASS could be a very sensitive measure. Although feedback may be skewed towards the positive end of the visual analogue scale, the supervisor has the opportunity to notice *any* change in ratings of the alliance and open up a conversation about this change. It is argued here that the use of the visual analogue scale maximises the chance that trainees will give variable responses. Furthermore, it is argued that if supervisors request feedback and are open to discussion about this feedback, the supervisory alliance has more chance of developing and there will be an increased chance that supervisees will feel able to be open and honest in their feedback.

Following discussion between the author, DG, and GL, it was agreed that in response to feedback point 3, items should feature descriptors at each end of the visual analogue scale. The LASS was adapted to reflect this change. The ordering of items in the LASS was also changed so that the item that was believed to be least anxiety provoking was first (approach). The final version of the LASS is shown in appendix 8. The final version of the LASS was then subject to psychometric investigation, which is detailed below.

## *Measures*

Measures were administered to participants to provide data upon which the reliability, sensitivity to change, and validity of the LASS could be calculated. The measures administered are detailed below.

### *Leeds Alliance in Supervision Scale (LASS)*

The LASS is a 3-item scale that is designed to provide sessional feedback on the supervisory alliance from the perspective of the supervisee.

Respondents are required to indicate their agreement with the poles of 3 visual analogue scales. These scales are designed to tap information about the approach in supervision, the relationship, and the degree to which supervision was helpful. The LASS was positively received by a group of supervisors attending a supervision workshop, who gave feedback on the measure. The majority of those who gave feedback said that they thought that they would find it useful. Psychometric information about the LASS is the subject of this study.

### *The Supervisory Relationship Questionnaire (SRQ: Palomo, 2004; Palomo et al., 2010)*

The SRQ has been described previously in the present document, therefore only brief details will be given here. The SRQ is a 67-item measure of the supervisory alliance from the perspective of the supervisee. Respondents are required to rate their agreement with a series of statements using 7-point likert scales. Psychometric investigation has found that the SRQ has sound reliability and validity (Palomo, 2004; Palomo et al., 2010).

### *The Supervisory Satisfaction Questionnaire (SSQ: Ladany et al., 1996)*

The SSQ is a modified version of the Client Satisfaction Questionnaire (Larsen et al., 1979). The SSQ has 8-items measuring supervisee satisfaction with supervision on a 1 to 4 scale. The scale has just 1 factor, although this is based on the original client satisfaction scale (Nguyen, Attkinson, & Stegner, 1983). Internal consistency ranges from .96 to .97 (Ladany & Lehrman-Waterman, 1999; Lehrman-Waterman & Ladany, 2001).

The SSQ has been found to have a positive relationship with helpful evaluative processes in supervision (Lehrman-Waterman & Ladany, 2001).

### *The Role Conflict Role Ambiguity Inventory (RCRAI: Olk & Friedlander, 1992)*

The RCRAI is a 29-item measure, with 19-items assessing experience of role ambiguity and a 10-items assessing trainee experience of role conflict. Psychometric evaluation demonstrated good internal consistency for role conflict (.89) and role ambiguity (.91). Negative relationships were found between the RCRAI and supervision and job satisfaction; a positive relationship was found between the RCRAI and work related stress. Furthermore, a negative relationship was found between ratings on the RCRAI and the SRQ (Palomo, 2004; Palomo, Beinart, & Cooper, 2010).

### *Questionnaire Packs*

Questionnaire packs (see appendix 9) included an information sheet giving details about the study, a consent form, 3 copies of the LASS (labelled week 1, week 2, and week 3), and 1 copy of the SRQ, SSQ, and RCRAI. Packs also included an instruction sheet. This instructed that following completion of the consent form, participants should complete the week 1 LASS, the SRQ, SSQ, and RCRAI. Participants were then instructed to complete the week 2 LASS approximately 1-week after completing the first LASS, and then complete the week 3 LASS 1-week after that. It was hoped that this would yield the completion of 3 LASS measures approximately 1-week apart, as well as the measures to be used for scale validation. Included with questionnaire packs was a return envelope.

### *Procedure*

Contact was made with academic members of staff at a number of UK Clinical Psychology Training Courses in December 2009 and January 2010. Courses were selected on the basis of personal and/or professional contacts of DG and GL being members of the course staff. Permission was sought to invite trainees to participate at the Universities of Cardiff, Edinburgh, Glasgow, Hull, Lancaster, Leeds, Leicester, Liverpool, Manchester, Christ Church (Solomons), Sheffield, Teesside, and East Anglia. Trainees were invited to participate either by the present author speaking to them in person or by email.

Arrangements were made for the present author to speak to trainees in person about the study at the Universities of Edinburgh, Hull (final year), Leeds, Liverpool, Manchester, and Sheffield. In all cases an email was sent through a member of the academic staff at each university to trainees at least 1-week before. The email told trainees when the study would be introduced and gave brief details of the study. It also included the information sheet and consent form from the questionnaire pack (appendix 9) as an attachment. When the present author introduced the study, details from the information sheet were recovered and questions were invited. All trainees were given a questionnaire pack and were asked to complete and return the pack in the envelope provided if they wished to participate.

Questionnaire packs were sent to all trainees at the Universities of Cardiff and Lancaster. An email was sent to the trainees 1-week before the packs were sent. The email informed the trainees that they would be receiving a pack, gave brief information about the thesis, and included the information

sheet and consent form from the questionnaire pack. Trainees who wished to participate were asked to complete the questionnaire pack and return it in the envelope provided.

Emails were sent to trainees at the Universities of Christ Church (Solomons), Glasgow, Leicester, Teesside, and East Anglia through members of the course staff of each university. The email gave details about the study and asked trainees to contact the author by email if they wished to participate. Trainees who wished to participate were sent the information sheet and consent form from the questionnaire pack via email, and were asked to provide their postal address. Questionnaire packs were then sent out to trainees in the post. Participants were asked to complete the questionnaire pack and return it in the envelope provided.

Returned questionnaire packs were collated. Consent forms were removed from packs in order to maintain the anonymity of participants. Information disclosed on the demographic questionnaire and responses on the experimental measure were entered into SPSS-17 for analysis.

## Data Analytic Procedures and Rationale

Individual missing values were handled during the scoring of measures. Six individual missing values were found on the Supervisory Relationship Questionnaire during scoring. These missing values were given the rounded average rating for the subscale where the missing value occurred. In addition to these individual missing values, 1 participant did not complete the structure subscale on the SRQ. Also, 2 participants failed to complete the SSQ. Data for these 3 participants were completely removed at the stage of statistical analysis.

Descriptive statistics were calculated for the scores on all measures. Data were also obtained from the reports of other research investigating the SRQ, SSQ, and RCRAI. Comparisons were made between mean responses on these measures in the present study and mean responses in previous research in order to determine whether the response characteristics of the present participant sample were comparable.

The reliability of the LASS was calculated in order to provide information about test error. Test re-test reliability is based on the correlation between observations on the same test taken on 2 different occasions. Test re-test assumes that any change in observation is a function of error (Kline, 2000). Some degree of test error is likely to occur in all psychometric tests. This is because the constructs of interest to psychological science are not directly observable like weight and length are in physical science (Smith, 2005). The measurement of hypothetical constructs means that one can never be sure of a pure and consistent measure of a particular construct. However error in measures should not be so high that the interpretation of these measures becomes problematic. Kline (1987) suggests that the correlation between observations should be at least .7.

Although test re-test reliability may be important in establishing consistency in measurement, sometimes variation is expected in measurements taken on different occasions. As previously argued, the supervisory alliance is a dynamic construct that requires multiple measurements over time. The point of a sessional measure is to capture sessional change in this construct. This expectation of change may render test re-test inappropriate (Kline, 2000). However some stability would be

expected over short time periods, e.g. between 2-sessions that are 1-week apart. Although test re-test may not provide a wholly appropriate indication of reliability, it may provide information about sensitivity to change. Given the desired balance between stability over time and sensitivity to change, a correlation coefficient around the minimum standard of .7 (Kline, 1987) was considered acceptable. Correlations were calculated using data from administrations of the LASS in weeks 1 and 2.

Another measure of reliability is internal consistency. Internal consistency considers whether individual items on a measure yield observations that are consistent with the entire measure (Field, 2009). Cronbach's alpha is one method for calculating internal consistency. This technique estimates multiple splits in a measure and calculates the correlation coefficient between scores for each half. The average of these correlation coefficients is Cronbach's alpha (Field, 2009). The minimum alpha coefficient for a reliable test is proposed to be similar to the minimum correlation for test re-test: .7 (Kline, 2000). However given that the LASS aims to measure a construct using just 3 items, high internal consistency may not be expected. Therefore a moderate consistency level around .7 was regarded as acceptable. Cronbach's alpha was calculated for LASS data taken in week 1.

In addition to calculating the reliability of a measure, further information about the error of a test can be gained by investigating its validity. The investigation of validity aims to tell us whether a test is measuring what it aims to measure (Field, 2009). There are a number of methods for investigating validity. The present study investigated concurrent and convergent validity.

Concurrent validity involves calculating the relationship between the subject measure and existing valid measures of the same construct taken at the same time. Guidelines suggest that multiple measures should be used when investigating concurrent validity (Kline, 1987). However it was believed that attempts to gain data using multiple lengthy measures would have dramatically reduced participant recruitment and commitment in the present study. Therefore the relationship between the LASS and the SRQ was investigated to provide information about concurrent validity. It was hoped that responses on the LASS would have a statistically significant correlation with responses on the SRQ. The LASS data was correlated with subscale and total scores from the SRQ.

Convergent validity refers to the degree to which a measure is related to other measures that it would theoretically be expected to correlate with. Three criterion constructs were used in the present study to investigate convergent validity: supervisory satisfaction, role conflict, and role ambiguity. Scores on the SSQ have been found to be positively related to supervisory evaluative experiences (Lehrman-Waterman & Ladany, 2001), which are in turn associated with a strong supervisory alliance. The correlation between ratings on the LASS and ratings on the SSQ were therefore investigated. It was predicted that scores on the LASS would have a significant positive correlation with scores on the SSQ. The discriminative ability of the LASS was also assessed using this data. This was done by calculating whether SSQ scores for participants with the lowest LASS ratings were significantly different from SSQ scores of participants with the highest LASS ratings. It was predicted that these differences would be statistically significant.

Ratings of role conflict and role ambiguity using the RCRAI have been found to be negatively correlated with ratings of the supervisory alliance (Palomo, 2004; Palomo et al., 2010). Therefore a high supervisory alliance is associated with low role conflict and low role ambiguity. The correlations between LASS ratings, and ratings of role conflict, role ambiguity, and total RCRAI scores were investigated. It was predicted that a significant negative correlation would be found between scores on the LASS and scores on the two subscales and totals from the RCRAI.

# Results

## *Participants*

Three-hundred and fifty-five questionnaire packs were distributed. The response rate was 39%, which is comparable to other studies that have developed measures of the supervisory alliance using trainee Clinical Psychologists (Palomo, 2004, Palomo et al. 2010). Participants were 140 trainee Clinical Psychologists from UK universities. The mean age for those who disclosed this information (n = 137) was 28.01 (SD = 3.299). The youngest participant was 22, and the oldest was 44 years old. Table 5 presents frequency data to describe the sample. Frequencies are given for gender, training year, participants' training institution, their current placement type, and the gender of their current supervisor.

**Table 5: Participant frequency data for study 2.**

| | | *N* | *Percentage* |
|---|---|---|---|
| **Total** | | 140 | 100 |
| **Gender** | Male | 16 | 11.4 |
| | Female | 121 | 86.4 |
| | No disclosure | 3 | 2.1 |
| **Training Year** | 1 | 56 | 40 |
| | 2 | 37 | 26.4 |
| | 3 | 41 | 29.3 |
| | 4 | 1 | .7 |
| | 5 | 2 | 1.4 |
| | No disclosure | 3 | 2.1 |
| **Training Institution** | Cardiff | 5 | 3.6 |
| | Edinburgh | 27 | 19.3 |
| | Glasgow | 4 | 2.9 |
| | Hull | 6 | 4.3 |
| | Lancaster | 13 | 9.3 |
| | Leeds | 19 | 13.6 |
| | Leicester | 7 | 5 |
| | Liverpool | 12 | 8.6 |
| | Manchester | 3 | 2.1 |
| | Salomons | 9 | 6.4 |
| | Sheffield | 22 | 15.7 |
| | Teesside | 9 | 6.4 |
| | UEA (East Anglia) | 1 | .7 |
| | No disclosure | 3 | 2.1 |
| **Current Placement** | Adult | 49 | 35 |
| | Child | 28 | 20 |
| | Drug and alcohol service | 1 | .7 |
| | Forensic | 3 | 2.1 |
| | Health | 10 | 7.1 |
| | Learning Disabilities | 23 | 16.4 |
| | Neuropsychology | 4 | 2.9 |
| | Older people's service | 17 | 12.1 |
| | Organisational | 1 | .7 |
| | Psychiatry | 1 | .7 |
| | No disclosure | 3 | 2.1 |
| **Supervisor Gender** | Male | 44 | 31.4 |
| | Female | 93 | 66.4 |
| | No disclosure | 3 | 2.1 |

Participants had been with their current supervisors for an average of 3.94 (SD = 2.182) months, with a range of 1 to 15 months. At the time that participants provided demographic and descriptive information, 85.4% had received clinical supervision approximately within the last week, 93.4% had received supervision at least within the last 2 weeks, and all participants had supervision within the last 5 weeks. A number of participants explained that the reason for the gap in supervision was annual leave taken by themselves or their supervisors.

### *Descriptive Statistics*

Participants rated their experiences in supervision using the LASS, SRQ, SSQ, and the RCRAI. Participants completed all measures in week 1, and completed additional LASS measures in weeks 2 and 3. Following the removal of data for 3 participants who did not provide complete data, the participant sample for analysis in study 2 was N = 137.

Table 6 displays descriptive statistics for participant total ratings on the LASS for weeks 1, 2, and 3. As can be seen, there is a general trend for ratings to increase over the 3 weeks. The table also shows that there is a large range in total ratings, with some participants rating their supervisory alliance with the highest possible score, and others giving relatively low ratings. Shapiro-Wilk tests of normality conducted on LASS total data for weeks 1, 2, and 3 revealed that the distribution of ratings for all 3 weeks was significantly different from normal. Examination of histograms for each of the 3 weeks revealed that ratings were skewed towards higher scores.

**Table 6: Descriptive statistics for LASS ratings.**

| Week | Total Mean | Standard Deviation | Range |
|---|---|---|---|
| 1 | 247.16 | 37.225 | 80 – 300 |
| 2 | 253.45 | 41.226 | 68 – 300 |
| 3 | 257.45 | 39.445 | 45 – 300 |

Table 7 displays descriptive statistics for ratings on the SRQ, SSQ, and RCRAI taken in week 1. Descriptive statistics are also displayed that were taken from other studies using these measures (displayed in italics). SRQ subscale scores were calculated by dividing total ratings by the number of items in each subscale.

**Table 7: Descriptive statistics for SRQ, SSQ, and RCRAI from study 2 and comparator studies.**

| ***Study*** | ***Measure*** | ***Subscale*** | ***Mean*** | ***Standard Deviation*** | ***Range*** |
|---|---|---|---|---|---|
| Study 2 | SRQ | Total | 400.05 | 44.868 | 258 – 469 |
| | | Safe base | 6.06 | .86 | 2.33 – 7.07 |
| | | Structure | 5.95 | .96 | 2.75 – 7 |
| | | Commitment | 6.07 | .78 | 3.70 – 7 |
| | | Reflective education | 5.39 | .97 | 2.36 – 7.36 |
| | | Role model | 6.56 | .59 | 4 – 7.67 |
| | | Formative feedback | 5.75 | .86 | 3.27 – 7 |
| *Palomo et al. (2010)* | *SRQ* | *Total* | *364.3* | *69.9* | *122 – 469* |
| | | *Safe base* | *5.45* | *1.28* | *1.07 – 7* |
| | | *Structure* | *5.50* | *1.14* | *1.75 – 7* |
| | | *Commitment* | *5.56* | *1.21* | *1.40 – 7* |
| | | *Reflective education* | *4.84* | *1.30* | *1.09 – 7* |
| | | *Role model* | *6.00* | *1.01* | *1.58 – 7* |
| | | *Formative feedback* | *5.27* | *1.15* | *1.09 – 7* |
| Study 2 | SSQ | | 27.29 | 4.409 | 14 – 32 |
| *Ladany et al. (1996)* | *SSQ* | | *23.76* | *6.34* | - |

*(Table continues)*

*Table 7 (continued).* Descriptive statistics for SRQ, SSQ, and RCRAI from study 2 and comparator studies.

| ***Study*** | ***Measure*** | ***Subscale*** | ***Mean*** | ***Standard Deviation*** | ***Range*** |
|---|---|---|---|---|---|
| Study 2 | RCRAI | Total | 47.64 | 17.03 | 29 – 105 |
| | | Role conflict | 16.04 | 6.639 | 11 – 49 |
| | | Role ambiguity | 31.62 | 13.343 | 10 – 76 |
| *Palomo et al. (2010)* | *RCRAI* | *Total* | *-* | *-* | *-* |
| | | *Role conflict* | *15.6* | *7.3* | *10 – 46* |
| | | *Role ambiguity* | *35.1* | *14.6* | *3 – 89* |

As can be seen in table 7, the mean total rating on the SRQ in study 2 is much higher than the midpoint score of 234.5. Indeed the lowest rating given on the SRQ was above this midpoint. This indicates that scores given in study 2 were skewed towards higher ratings. Comparing SRQ ratings from study 2 with those from Palomo et al. (2010) shows that the mean ratings on each subscale were higher in study 2. Mean satisfaction ratings given on the SSQ were also higher in study 2 than those given in the study by Ladany et al. (1996). The mean role conflict rating given on the RCRAI in study 2 was higher than the mean from Palomo et al. However the mean role ambiguity rating in study 2 was lower than that in Palomo et al. This may suggest that on average, participants in study 2 experienced more role conflict, but less role ambiguity than participants from the comparator study.

## *Reliability Analysis*

An analysis of reliability was conducted on the data from the LASS in order to provide information about test error. The reliability analysis investigated the internal consistency of the LASS, and its test re-test reliability. The test re-test analysis can also provide important information regarding the scale's sensitivity to change.

Cronbach's alpha was used to calculate internal consistency using data from LASS responses in week 1. The LASS was found to have adequate internal consistency reliability, Cronbach's $\alpha$ = .713. This is above the minimum suggested alpha coefficient for internal consistency (Kline, 2000), and is considered to be very positive given the brevity of the LASS. Item total correlations were r = .437 for item 1, r = .535 for item 2, and r = .668 for item 3.

Test re-test analysis was conducted using data from LASS responses in week 1 and week 2. As previously mentioned, Shapiro-Wilks tests of normality conducted on LASS total scores for data collected in week 1 and week 2 revealed that the distribution of scores was significantly different from normal. Therefore the test re-test reliability analysis was conducted using non-parametric tests. Spearman's correlation co-efficient was calculated to examine the relationship between LASS data. The correlation between week 1 and week 2 LASS data was statistically significant, r = .634. Wilcoxon signed-rank test revealed that week 2 LASS ratings (Mdn = 268) were significantly higher than week 1 LASS ratings (Mdn = 255), $Z$ = -3.281, $p < .05$.

The correlation between the scores in week 1 and week 2 are slightly below the minimum standard for test re-test reliability (Kline, 1987). However given that some degree of change was expected between weeks using the LASS, and that the relationship was found to be significant, this result is considered to be successful. This relationship demonstrates an adequate level of consistency for a sessional measure, while highlighting that the LASS is sensitive to change on a week-by-week basis.

### *Validity Analysis*

The validity of the LASS was calculated by testing the relationship between ratings given on the LASS and ratings given on measures of the same and theoretically related constructs. Due to the finding from Shapiro-Wilks tests of normality that the distribution of LASS ratings was significantly different from normal, relationships between measures were calculated using non-parametric tests.

Concurrent validity was investigated by calculating the relationship between ratings given on the LASS in week 1 and ratings given on the SRQ. Spearman's correlation coefficient between LASS total and SRQ total ratings was statistically significant, r = .705. Correlations between LASS total rating and all 6 SRQ subscales were statistically significant (r = .455 to .653), the strongest relationship being between LASS total and the formative feedback subscale from the SRQ.

Convergent validity was investigated by calculating the relationship between week 1 LASS total ratings and ratings given on the SSQ and on the RCRAI. Spearman's correlation coefficient between LASS total rating and SSQ rating was statistically significant, r = .590. Calculation of Spearman's correlation coefficients also found significant inverse relationships between LASS total and ratings on role conflict, r = -.375, role ambiguity, r = -.509, and total RCRAI, r = -.522.

The ability of LASS ratings to discriminate between participant levels of supervisory satisfaction was also investigated. The SSQ ratings given by participants who rated their supervisory alliance as the lowest on the LASS (lower quartile, n = 34), and participants who rated their supervisory alliance

as the highest on the LASS (higher quartile, n = 34) were compared. A Shapiro-Wilk test of normality revealed that the distribution of SSQ ratings given by the higher quartile was significantly different from normal, $D(34) = .808$, $p < .001$. Comparison of mean ratings was therefore investigated using a non-parametric test. A Mann-Whitney test revealed that satisfaction ratings in the higher quartile (Mdn = 30) were significantly higher than satisfaction ratings in the lower quartile (Mdn = 23.5), $U = 152$, $z = -5.253$, $p < .001$. This indicates that LASS ratings were able to discriminate between participant levels of supervisory satisfaction in the present sample.

These findings suggest that the LASS has adequate validity. The LASS ratings correlated highly with the total SRQ ratings, with correlations between LASS ratings and the SRQ subscales all being within the medium to high range (Field, 2009). The relationship between LASS ratings and ratings on the SSQ was also high, with the inverse relationships found between LASS ratings and the role conflict and role ambiguity subscales of the RCRAI falling in the medium and high range (Field, 2009). Finally, the ability of LASS ratings to discriminate between ratings of supervisory satisfaction is encouraging.

# Discussion

## Aim of Present Research

The aim of this thesis was to create a new short-form measure of the supervisory alliance: the LASS. This new measure is designed to provide feedback to the supervisor from the perspective of the supervisee, and to have the clinical utility to be administered at each supervision session. The measure could therefore act as a mechanism for providing ongoing feedback about the supervisory alliance. It was planned that the new measure would be created using sound psychometric principles, and that it would be a reliable and valid measure of the target construct. The research was conducted in 2 studies: Study 1 focused on scale construction; study 2 focused on psychometric evaluation. The process of the research and its findings will now be discussed.

## Discussion of Research Findings

### *Study 1: Scale construction*

### *Construction of the Experimental Measure*

The first stage in the construction of the LASS was to develop an experimental measure using items from existing measures of the supervisory alliance and a measure of the evaluation process within supervision. The qualitative sort of items from existing measures led to the identification of 12 themes. The selection of items from the item pool to represent each theme was possible for 10 of the themes. For the remaining 2 themes: *positive*

*outcome of supervision* and *sensitivity*, it was necessary to write new items that were considered more representative. Although it was hoped that the writing of new items could be avoided, allowing each theme and the items within it to be adequately represented was very important.

Some theories and measures of the supervisory alliance have previously been criticised on the basis that they have not adequately accounted for the evaluation and gate keeping process that is so important in supervision. In order to more explicitly account for the evaluation process within supervision, items from the Evaluation Process within Supervision Inventory (EPSI) were included in the qualitative sort. However, interestingly, no items from the EPSI were included in the experimental measure because when the EPSI's items were placed into themes, items from other measures were deemed to be more representative. Thus it appears that the items from other measures adequately accounted for the evaluation process within supervision.

The results of the qualitative analysis yielded a greater number of themes than any single study had previously identified when investigating and/or developing measures of supervision. This is not surprising given that the analysis considered a large pool of items that were taken from theoretically diverse measures. Some theoretical orientations were represented in more than one measure, e.g. both the Supervisory Working Alliance Inventory (SWAI) and Working Alliance Inventory-Trainee form (WAI-T) were somewhat influenced by Bordin (1979, 1983). However a *range* of theories from both the supervision (e.g. Holloway, 1997) and psychotherapy (e.g. Barrett-Lennard, 1962) literature were represented in the item pool.

The qualitative analysis led to the construction of an experimental measure consisting of items that represented the themes from the qualitative sort. The 2 main response formats considered for the measure were the visual analogue scale and the likert scale. The benefits of the visual analogue scale are that it is easy to administer, it has been found to have good face validity (Miller et al., 2003), it offers a choice of scaling (e.g. 10 points or 100 points), and it has the potential to be sensitive to subtle shifts in ratings. In addition, it is argued here that respondents would feel safer to provide lower ratings from 1 session to the next using visual analogue scales, than on scales that use fixed rating points, e.g. likert scale. Some researchers have found that likert scales are easier to administer and interpret than visual analogue scales, although their reliability and validity are comparable (Guyatt, Townsend, Berman, & Keller, 1986; van Laerhoven, van der Zaag-Loonen, & Derkx, 2004; Hasson & Arnetz, 2005). Furthermore, it was felt that the increased sensitivity to change offered by visual analogue scales outweighed the benefits offered by likert scales.

## *Principal Components Analysis*

The experimental measure was administered to 98 participants. The data obtained were used to investigate the factor structure of the measure. It was hoped that this would reveal the most important factors, and therefore items, to include in the short-form measure. Although the use of a relatively brief experimental measure yielded a good response rate, the sample size could be regarded as small for factor analysis. Recruitment of participants during the summer was problematic due to the timescale available for study 1 and the fact that many trainees were not regularly in university. However despite

the relatively small sample size, analysis using the Kaiser-Meyer-Olkin measure of sampling adequacy revealed that the sample was appropriate for Principal Components Analysis (PCA).

Prior to analysis using PCA, descriptive statistics were obtained showing that ratings were positively skewed. The mean rating on the experimental measure was much higher than the midpoint rating available. There are a number of possible reasons for this response pattern. The most parsimonious explanation is that participants were on average experiencing positive supervisory alliances. This may be a function of the phase of their relationship (Holloway, 1997). The average length of time that participants had been with their supervisors was approaching 3.5 months, with some participants having been with their supervisors for 12 months. It may be the case that supervisory alliances had progressed and were largely experienced as positive at the time the experimental measure was administered.

An alternative explanation is that trainee Clinical Psychologists are not sophisticated enough consumers of supervision. However most trainees will have encountered a number of different clinical supervisors both before training and during training, making them very experienced consumers of supervision. Whatever the possible explanations for this finding, the present study was not designed as an investigation of factors affecting ratings of the supervisory alliance. Therefore it did not adequately control for either the length of time supervisees had been with their supervisors, or participants' level of experience in supervision. Making inferences regarding the reasons for this finding are therefore problematic.

Responses have been skewed towards positive ratings in other studies using other measures of the supervisory alliance. Palomo and colleagues (Palomo, 2004; Palomo et al., 2010) found that the mean supervisory alliance rating on the Supervisory Relationship Questionnaire (SRQ) was much higher than the mid-point available. This suggests that the skewed ratings found in the present study are not necessarily unusual.

Analysis of the data from the experimental measure using PCA resulted in the extraction of 2 components above Kaiser's criteria of 1. Almost all of the variance was accounted for by the 1st component, with a relatively small amount of variance being accounted for by the 2nd. This was reflected in the number of items in each component, with only 3 items loading onto the 2nd component, and the remaining 22 items loading onto the 1st component. As noted in the results section, visual analysis of the scree plot revealed that there were 2 possible interpretations.

One interpretation is that the supervisory alliance as measured by the experimental measure is a single factor construct. This would require that the 22 items loading onto the 1st component were retained, while the remaining 3 items loading onto component 2 were dropped. This interpretation is quite at odds with the research of Palomo and colleagues (Palomo, 2004; Palomo et al., 2010) who found that their measure, the SRQ, has 6 factors. The experimental measure included 14 items from the SRQ, with items to represent each of the SRQ's 6 subscales. The finding that the experimental measure could be interpreted as a single factor may therefore be regarded as surprising.

However, this is not the first time that a measure of the supervisory alliance has been found to have 1 component. Analysis using PCA of data from the Relationship Inventory (RI) revealed that this 5-subscale measure is best explained by 1 factor (Schacht, 1986). Analysis of the data from 656 Counselling or Clinical Psychology trainees on the Working Alliance Inventory-Trainee form (WAI-T) revealed that the goal, task, and bond subscales were highly correlated. This led the authors to the conclusion that the supervisory alliance may be best explained as a single factor construct (Ellis et al., 2007).

Although the PCA of the SRQ led to the extraction of 6 components (Palomo, 2004; Palomo et al., 2010), other data from this study may suggest that a 6-factor solution may be generous. Examination of the alpha coefficients shows that the internal consistency of the entire scale is extremely high ($\alpha$ = .98), with the internal consistency of each of the subscales also being in the high range. Although high internal consistency in psychometrics is usually positive, such high internal consistency may indicate the measurement of too narrow a range of factors (Cattell & Kline, 1977). It could be the case that the 6 components extracted in analysis of the SRQ are more a function of its large number of items than a clear 6-factor structure.

There is clearly some evidence to suggest that the supervisory alliance may be a single factor construct. This would support the interpretation of the PCA in the present thesis as indicating that the experimental measure consists of 1 dimension. However, in considering the items that loaded onto the 2$^{nd}$ component, it was judged that they represented a potentially useful

construct in terms of the proposed feedback function of the new measure and so the 2-component solution was adopted and all items retained.

As previously noted, the purpose of conducting PCA was to investigate the structure of the experimental measure, and for the results of the analysis to influence the selection of items for the LASS. This would have been done by selecting items to represent each of the factors that were extracted from the PCA. However because a maximum of 2 components were extracted, with 1 accounting for much more variance than the other, this method for item selection was deemed inappropriate.

### *Hierarchical Cluster Analysis*

The final stage in the construction of the LASS was therefore to analyse the data using hierarchical clustering. This method is not typically used in scale construction as it is more traditionally employed for analysing individuals or cases. However it can also be used as a method for grouping variables in terms of their similarity or Euclidean distance (Norusis, 2010). The use of cluster analysis in the present thesis was particularly useful because of the hierarchical nature of this method and the dendrogram output from the analysis. The output allowed a *qualitative* analysis of the structure of the experimental measure, which led to the identification of 3 clear clusters. An item was selected to represent each of the clusters, making the LASS a 3-item scale.

At this stage, the development of the LASS had met its aims of constructing a scale that has real clinical utility, but that is based on sound psychometric principles and procedures.

## *Study 2: Psychometric Investigation of the LASS*

### *Face Validity*

Following item selection for the LASS, the face validity of this new measure was investigated by asking a group of supervisors to rate how useful they thought it would be. They were also asked to provide general feedback on the scale. Ratings of usefulness were positive, with 22 out of 28 supervisors who provided a rating suggesting that they thought the LASS would be useful. This is very encouraging and reinforces the need for a brief sessional measure of the supervisory alliance.

General feedback about the LASS was helpful in suggesting changes to the measure that may help make it more useable. Feedback also highlighted the potential issue of trainees only feeling able to give very positive feedback to their supervisors. This could occur with any measure of the supervisory alliance used to elicit feedback. Therefore rather than being a question of the utility of the LASS specifically, this point may question the utility of eliciting feedback in this manner more generally.

However, the use of measures is likely to be more sensitive to change in the alliance than if supervisors asked their supervisees for direct verbal feedback. Discreet changes in opinion about the alliance are more likely to be detected in a measure than verbal report, which may therefore prove much more useful. Even the most discreet change in ratings of the alliance can be noted and opened for discussion. Discreet changes are even more likely to be detected when using a 100-point scale. Although it may be likely that ratings of the alliance in supervision sessions are skewed towards the

positive, it is the ability of the LASS to detect *discreet changes* in the alliance that is of value. The issue of sensitivity will be discussed further later in this section.

## *Descriptive Analysis*

Data from ratings on the LASS, SRQ, SSQ, and RCRAI were analysed using descriptive statistics. Over the course of the 3 weeks that the LASS was completed, on average, ratings increased. This pattern may be expected. As the phase of the relationship between supervisor and supervisee progresses (Holloway, 1997), the supervisory alliance may grow stronger. However this will not always be the case. There are numerous examples in the data from study 2 where ratings fell between weeks. In such cases the LASS may prove an important tool in detecting this deterioration and allowing it to be discussed openly in supervision.

The distribution of LASS data from each week was significantly different from normal. Histograms revealed that scores were skewed towards higher ratings. This trend follows on from ratings on the experimental measure in study 1, and the findings of other studies that have developed measures of the supervisory alliance (Palomo, 2004; Palomo et al., 2010). There may be a tendency for UK trainee Clinical Psychologists to rate their supervisory alliances as positive, even when providing confidential ratings in research studies. As highlighted in the discussion of study 1, there are a number of possible reasons for this trend, none of which can be adequately explained without further research controlling for these possible variables.

The descriptive statistics for SRQ, SSQ, and RCRAI ratings in study 2 were compared to those from comparator studies. Ratings given on the SRQ

in study 2 were positively skewed. SRQ ratings in study 2 were, on average, higher than ratings given in the study by Palomo and colleagues (Palomo, 2004; Palomo et al., 2010). Ratings on the SSQ were also higher in study 2 than in the study by Ladany et al. (1996). Role conflict ratings on the RCRAI in study 2 were higher than in the study by Palomo and colleagues (Palomo, 2004; Palomo et al., 2010), but role ambiguity ratings were lower.

It was not possible to test the significance of the differences in ratings between study 2 and comparator studies. The ratings would suggest that participants in study 2 experienced better supervisory alliances, higher levels of satisfaction with supervision, and lower role ambiguity. It is not clear why this occurred. There could be a number of possible explanations for this finding. However the amount of available information on the comparator studies is limited. This prevents further exploration of hypotheses regarding the possible reasons for this result.

## *Reliability Analysis*

The internal consistency of the LASS was calculated to be adequate (Kline, 2000). However, the alpha coefficient for the LASS is below that calculated for any other available measure of the supervisory alliance. It is much lower than the internal consistency calculated for the SRQ (Palomo, 2004; Palomo et al., 2010), and is considerably lower than the internal consistency of the new Brief Supervisory Alliance Scale (BSAS: Rønnestad & Lundquist, 2009). The internal consistency of the BSAS is most encouraging given that it consists of only 12 items. However the LASS is much more brief, and consideration of its internal consistency must bare this in mind. The

finding that the 3-item LASS has an acceptable level of internal consistency is very encouraging.

The analysis of test re-test reliability also yielded positive results. The co-efficient fell just below the acceptable level (Kline, 1987). However an aim of scale construction was for the LASS to be sensitive to change in ratings of the alliance. The finding that test re-test reliability fell just below the acceptable level suggests that the measure is reliable between 2 administrations that are close in time, but that it is able to detect change. The test re-test reliability of the LASS falls below that of other measures of the supervisory alliance. However the LASS is the first scale to be designed as a sessional measure that explicitly aims to detect session-by-session change in order to provide feedback. The test re-test reliability of the LASS is therefore deemed to be acceptable.

### *Validity Analysis*

Concurrent validity was investigated by examining the relationship between ratings on the LASS and ratings on the SRQ taken on the same day. The correlation between total LASS and total SRQ scores was high, with LASS totals correlating moderately to highly with all SRQ subscales. Correlations for concurrent validity are not as high as those between the SRQ and the WAI-T and RI (Palomo, 2004; Palomo et al., 2010). However the finding of a highly significant correlation between the 3-item LASS and the 67-item SRQ is very positive. The concurrent validity coefficients found in the present study are also below those found for the BSAS (Rønnestad & Lundquist, 2009). However as noted in the introduction, this figure for

concurrent validity is based on correlations with an unpublished measure of a theoretically *convergent* but not *concurrent* construct.

Convergent validity was investigated by examining the relationship between ratings on the LASS and ratings on the SSQ and RCRAI. The analysis found a significant and moderate correlation between LASS and SSQ ratings. Ratings between the LASS and role conflict and role ambiguity subscales of the RCRAI were negative and significant. Therefore as theoretically predicted, there was a significant relationship between ratings of the supervisory alliance, as made on the LASS, and ratings of supervisory satisfaction. Also as theoretically predicted, there was a significant inverse relationship between LASS ratings and ratings of both role conflict and role ambiguity. Although this inverse relationship in the present study was not as high as that found between the SRQ and RCRAI (Palomo, 2004; Palomo et al., 2010), given the brevity of the LASS, this finding is positive.

The finding that there was a statistically significant difference in ratings of supervisory satisfaction between participants whose LASS ratings were highest and lowest adds to the case that the LASS is a valid measure of the supervisory alliance. This finding is similar to that of Palomo and colleagues (Palomo, 2004; Palomo et al., 2010), who found that the SRQ had the same ability to discriminate between participants' scores on the SSQ.

## *Summary*

The psychometric investigation demonstrates that the LASS has acceptable levels of validity and reliability. Indeed the findings of this analysis should be regarded as extremely encouraging given that the LASS is a 3-item measure. The LASS should therefore be considered as a tool for providing

sessional feedback on the supervisory alliance, and as a measure that can be used for research investigating this construct.

## Future Directions for Research

There are a number of research studies that could be conducted following the present project. These studies come under the categories of further analysis of the LASS, and further research of the supervisory alliance using the LASS.

### *Further Analysis of the LASS*

There are a number of studies that could be conducted to provide further information about the psychometric properties of the LASS. One would be to further investigate the validity of the LASS. Cronbach and Meehl (1955) argued that construct validity offers the best assessment of validity. This involves the integration of many measures of validity, the selection of which is determined by *a priori* hypotheses regarding the measure's psychometric properties. Hypotheses formulated must be relevant to the measure's validity, which is open to subjective interpretation (Kline, 2000).

Establishing construct validity is a complex process and would involve multiple research studies to investigate multiple observations over time. It is suggested that investigating construct validity should follow expert guidance (e.g. Smith, 2005). This guidance suggests that the first step in investigating construct validity should be *careful specification of the theoretical constructs in question (p 399).* Although there is a body of research written about the supervisory alliance that would lend itself to this specification, the unique nature of the LASS may require special consideration. The construct of the

supervisory alliance as measured on a sessional basis may not be the same as the construct of the supervisory alliance as measured at the beginning and end of a supervisory contract. Care would need to be taken in considering this issue in order to reasonably investigate the LASS's construct validity. Although investigating construct validity would be very complex, it would add real strength to the LASS. Construct validity has not yet been adequately established for any measure of the supervisory alliance, and is not often established in the psychometric field more generally.

The generalisability of the LASS could also be investigated. The psychometric analysis of the LASS followed the principles of classical test theory. Classical test theory is only able to account for one source of error at a time (Shavelson & Webb, 1991). For example, test re-test reliability is calculated using aggregated observations. This aggregation cannot account for all possible sources of variance within the sample that may affect observations. Generalisability theory is able to account for multiple sources of error at once by analysing data in terms of nested facets. Calculation of variance attributed to nested facets indicates whether observations are generalisable *between* these facets.

The investigation of error sources can be conducted using Hierarchical Linear Modelling (HLM). HLM is a much elaborated form of linear regression analysis (Twisk, 2006). The technique recognises that measurements are not independent, and that dependency is often in a hierarchical structure of levels that may affect observation variance. Aggregated data analysis assumes independence of measurement, which is naïve to the potential impact of

clusters in the data hierarchy. HLM uses statistical modelling to estimate the variance these clusters account for.

To take an example, the observations from multiple supervisory dyads are not independent. Observations at the dyad level are clustered within training years, which are again clustered within training institutions. Significant variance in observations attributable to clusters other than supervisory dyads is not desirable as this may limit generalisability of the measure. HLM could be used to estimate variance attributable to these clusters, allowing inferences to be made about the measure's generalisability. Such an investigation would require multiple observations over time in order to analyse the trajectory of change within supervisory dyads. An analysis of generalisability using HLM would add further strength to the LASS and would be a relatively novel investigation as this methodology is rarely used in psychometrics.

Although a generalisability study would certainly strengthen the LASS, generalisability would remain limited to the study population. As argued in the introduction section, supervision should be regarded as a responsibility for clinical practice and is a core activity for Clinical Psychologists (BPS, 2003). If supervision is important to Clinical Psychology more widely, then so is the supervisory alliance. Research to gain psychometric data for the LASS using qualified Clinical Psychologists would be an obvious step. Investigations using samples from other professional backgrounds that use supervision may also be useful in making a case for the wider dissemination of the LASS and its use by various healthcare professions.

Moving away from the psychometric investigation of the LASS, another future research project would be to create a supervisor version of the measure. There is significant evidence to suggest that there is a real difference between supervisees and supervisors perceptions of the alliance when in supervision (Efstation et al., 1990; Zarbock et al., 2009). Although the introduction of the LASS in supervision would open up channels for communication and highlight discrepancies in perceptions of the alliance, the availability of a supervisor form of the LASS would quantify any lack of congruence and aid discussion to resolve it. There is already a supervisor version of the SWAI, and research is currently being conducted on supervisor versions of both the SRQ and BSAS. Further research could make use of these measures to create a supervisor form of the LASS in the same way the supervisee version was constructed.

### *Future Research of the Supervisory Alliance*

There are a number of possible directions for future research of the supervisory alliance that could be enhanced through use of the LASS. The brevity of the LASS means that it can be administered at more regular time points than other measures of the supervisory alliance. Its brevity is also likely to increase scale completion and adherence to research protocols involving the completion of alliance measures (Brown et al., 1999; Miller et al., 2003).

The use of the LASS would allow investigation of the trajectory of change in the alliance over the course of a supervisory contract. Such research could be conducted using single case methodology and change could be tracked at the introduction of supervisory interventions, for example

the use of role play, in order to make inferences about their impact upon the alliance. If further research was conducted to create a supervisor version of the LASS, single case research could also be conducted to investigate the interaction of ratings of the alliance by supervisee and supervisor and their change over the course of the relationship.

Perhaps the most powerful piece of research that could be conducted would be an investigation of supervisory outcome. As noted in the introduction section, supervision outcome may be very difficult to measure. The acid test of supervision should be to investigate its impact on the clients of the supervisee. However there are many factors that could affect therapeutic progress or outcome, with supervision being just one.

If traditional research measurement of the supervisory alliance took place, this would likely see supervisee participants completing an alliance scale at the beginning, middle, and end of research. This would make it very difficult to make any inferences regarding the impact of the alliance on therapeutic progress because of the potential influence of a multitude of variables that impact on client outcome. However, if the LASS were employed in such research, the trajectory of change in the supervisory alliance could be tracked on a session-by-session basis. If the therapeutic alliance and therapeutic progress were also measured on a sessional basis, interactions between these factors could be examined and more valid inferences could be made regarding the impact of the supervisory alliance. If such a study also employed HLM to account for nested variance, it could be a very powerful piece of research.

## Implications for Clinical Practice

In addition to being a unique research measure, the LASS was developed as a tool for real-life clinical practice. Its successful construction therefore has a number of clinical implications. As previously noted, clinical supervision is an important activity for Clinical Psychologists and other health professions. The definition of clinical supervision from the perspective of Clinical Psychology clearly states that it is a *relationship-based* process (Milne, 2007). Indeed relationship factors were also outlined as key in the trans-theoretical model of supervision (Aten et al., 2008). The alliance between supervisee and supervisor is rightly believed to be an important factor in supervision at any stage in professional development.

In considering the supervision of trainees, the alliance might be deemed as even more important (Ellis, 1991). The alliance has been implicated as an important mechanism for change (Holloway, 1987), and has been found to positively correlate with the developmental level and satisfaction of trainees (Ramoz-Sanchez et al., 2002). It is the case that in addition to providing a safe and supportive learning environment, supervision also has a role in evaluation and gate-keeping. This is particularly important during the training of clinicians. However the alliance may remain an important factor here, as poor supervisory alliances have been associated with supervisee non-disclosure (Ladany et al., 1996), which supervisors rely upon in order to provide their evaluatory and gate-keeping role.

There is some evidence to suggest that the supervisory alliance may have further impact on trainees. Poor supervisory alliances have been associated with trainees experiencing role conflict and role ambiguity (Ladany

& Friedlander, 1995), and mistrust of supervisors (Nelson & Friedlander, 2001). Furthermore, the alliance in supervision may even impact on the supervisee's alliance with their clients in therapy (Friedlander et al., 1989; Patton & Kivlighan, 1997; Reese et al., in press).

The importance of the supervisory alliance means that there is a responsibility for this process to be monitored in supervision. During the supervision of trainees, this responsibility is likely to initially fall with the supervisor. Discussions about the importance of the alliance should be introduced by supervisors, and permission must be granted in order for trainees to feel able to openly talk about this potentially sensitive subject.

It is well established that sessional measures are useful in therapeutic work with clients (Anker et al., 2009; Harmon et al., 2007; Lambert et al., 2003; Reese et al., 2009; Slade et al., 2008; Whipple et al., 2003). Findings that there are significant treatment gains when therapists receive feedback on client progress and the therapeutic alliance suggests that therapists may be poor at detecting how their clients are doing in therapy. Sessional measures in therapy to provide feedback are therefore very useful. However if therapists are not good at detecting how their clients are doing in therapy, it is likely that they are also not good at detecting how their supervisees are doing in clinical supervision. Therefore, sessional measures will also be useful in supervision. Given the importance of the alliance in supervision, a sessional measure to track changes in the supervisory alliance could be of real benefit.

The introduction of the LASS could provide a real opportunity to supervisors. Bringing the LASS into supervision would put the supervisory alliance on the agenda, giving supervisees permission to talk about it, and

provide feedback. Change in alliance ratings could be openly discussed in a constructive manner, providing further permission for trainees to talk about their beliefs about the alliance. In line with the aforementioned research findings, opening up channels of communication regarding the alliance has the potential to promote development, increase supervisory satisfaction, increase or maintain supervisee disclosure, reduce role conflict and ambiguity, and promote trust of supervisors. Fostering of the alliance by using the LASS also has the potential to have a positive impact on the alliance formed between the supervisee and their clients. The use of the LASS may also prompt the supervisee to use the SRS (Duncan et al., 2003) to gain feedback from their clients about the therapeutic alliance, a practice that has been associated with increased therapeutic outcome (Anker et al., 2009; Reese et al., 2009).

## Strengths and Weaknesses

There are a number of strengths to the present research project. The project consisted of 2 studies, with 1 study focusing on the construction of the LASS, and the other focusing on an investigation of its psychometric properties. The use of 2 studies, with independent samples, was deemed important in order to allow the psychometric investigation to be conducted on data from participants who completed the final version of the measure. It is the case that some scale construction studies collect data on a pool of items, factor analyse this data, remove items that are no longer wanted, and then investigate the reliability and validity of the reduced item pool with the original data. This is problematic because when items are removed from the original item pool/measure, the measure is fundamentally changed. The ordering of

items can have a real impact upon participant responding. Therefore the way that participants responded to the original item pool will not necessarily be the same as they would respond to the reduced item pool following factor analysis. The use of 2 studies in the present project eliminated this issue and the psychometric analysis is therefore more valid.

Another strength is that the measure is trans-theoretical. The existing measures used in the qualitative sort had a number of different theoretical bases. Some measures were constructed with influence from the psychotherapy literature (e.g. RI: Schacht, 1986), while others were based upon theories of the alliance specific to the supervision context (e.g. SRQ: Palomo, 2004; Palomo et al., 2010). The consideration of items from these measures allowed the LASS to be constructed by taking into account items from a range of theoretical orientations. The LASS is therefore not based upon a single theory of the alliance, but was formed by considering all theories that have influenced previous measures.

The final selection of items for the LASS was based as much as possible on the findings of statistical analysis. The findings of the PCA did not give adequate direction for the appropriate selection of items for the LASS. Therefore a more appropriate and informative statistical procedure, hierarchical cluster analysis, was employed. Although the final selection of items was based on qualitative and pragmatic considerations, the statistical analysis provided the structure that then guided this item selection. This is considered to be a strength of the present study because there was a clear rationale and justification for the selection of items for the final version of the

LASS. This is not always the case in the development of measures, and it was thought to be particularly important with the LASS because of its brevity.

Another strength was that the scale construction followed sound psychometric principles. Guidance was followed on the construction of psychometric measures (Kline, 1987, 2000) and on statistical testing (Field, 2009). As mentioned when reviewing existing measures of the supervisory alliance, their construction raises a number of methodological concerns. The aim of the present project was to follow the principles of good psychometrics and avoid some of the criticisms that can be made of other measures.

Finally, the present project was able to meet its aims. These were to produce a brief measure of the supervisory alliance that has genuine clinical utility to be used as a sessional measure to provide feedback, but which also has the psychometric strength to be viable for research purposes. It is argued here that the LASS meets this brief. However, there are a number of weaknesses of the present project that are worthy of note.

It may be argued that the participant sample in both studies 1 and 2 were too small. The guidance for the number of participants that are needed for factor analytic procedures is not clear. It is suggested by some that between 10 and 15 participants per variable should be used for factor analysis (Field, 2000). Others have suggested that between 5 and 10 participants per variable is acceptable (Kass & Tinsley, 1979). While studies have also found replicable results from factor analysis using just 2 participants for every variable (Kline, 1987). The sample used for PCA in study 1 could clearly be argued to be too small on the basis of some of the above guidelines. However tests of sampling adequacy found the sample size to be appropriate.

It may be interesting to re-run the analysis with a larger sample in the future to test whether the results of the PCA in the present study are replicable.

The sample size in study 2 may be regarded as too small for the test re-test reliability analysis, as the participant number (n = 137) is considerably lower than the recommended 200 participant sample size (Kline, 1987). However the brevity of the LASS means that the item to participant ratio was much higher in study 2 than in many psychometric evaluations conducted in the development of measures. Also regarding test re-test analysis, the recommended gap between repeated administrations of a test is 3 months (Kline, 1987). Participants in study 2 were requested to complete the LASS for a second time just 1-week after the first time they completed it. However because some change was expected between weeks on the LASS, a test re-test delay of 3-months would not be suitable. It is therefore argued that the test re-test analysis conducted in study 2 was appropriate.

The present project did not sample all clinical doctorate courses in the UK. It may be argued that any differences between courses across the UK means that the generalisability of the LASS should be limited to the courses that formed part of the study sample. However the regulation of clinical training courses, formerly by the British Psychological Society and now by the Health Professions Council, means that in reality it is very unlikely that there would be any meaningful differences between the courses that may affect responding on the LASS. It is therefore argued that the LASS is equally relevant for all UK trainee Clinical Psychologists.

This leads to another question regarding generalisability. The use of trainee Clinical Psychologists limits the generalisability of the LASS to the

trainee population. However the LASS clearly has clinical utility beyond the trainee population. As previously mentioned, replication of study 2 with a non-trainee sample would increase the wider applicability of the LASS .

Finally, it could be argued that the investigation of validity could have been stronger. It may have been useful to include further measures of concurrent and convergent validity, and a measure of predictive validity. However it was decided that in order to maximise participation, the number of measures included in the questionnaire pack should not be overwhelming. As previously discussed, the gold standard would be to conduct an investigation of construct validity. This would require multiple studies, as well as adequate time and funding. The establishment of construct validity is therefore an issue for future research.

# Conclusion

Supervision is a very important clinical practice for both Clinical Psychologists and other professionals delivering healthcare. As argued throughout this document, a central construct within supervision is the alliance that exists between the supervisor and supervisee. The last 24 years has seen the development of a number of instruments designed to measure the supervisory alliance. These measures, although interesting and reflecting a variety of theories of the supervisory alliance, tend to be biased towards the research field and are generally too long to be used routinely in clinical practice. Research in psychotherapy has similarly seen the development of a number of measures to tap the therapeutic alliance. Most of these measures have also been research oriented and thus lack real clinical utility. However in recent years there has been a move to develop brief sessional measures that are designed to provide feedback and have an impact on therapist behaviour.

This thesis was designed to build upon the work already completed in measuring the supervisory alliance, and to develop a brief measure of this construct that could be used in every supervision session to provide feedback and impact on the behaviour of supervisor and supervisee. The thesis has aimed to utilise the strengths of previous work, but avoid some of the issues that could bring previous measures into question. The thesis has attempted to make use of the work that researchers have already done at each step in the construction of the LASS to produce a reliable and valid measure of the

supervisory alliance. It is argued that the thesis has been successful in these aims.

# References

Ackerman, S. J., Benjamin, L. S., Beutler, L. E., Gelso, C. J., Goldfried, M. R., Hill, C., et al. (2001). Empirically supported therapy relationships: Conclusions and recommendations of the division 29 task force. *Psychotherapy: Theory, Research, Practice, Training, 38*, 495-497.

Agnew-Davis, R., Stiles, W. B., Hardy, G. E., Barkham, M., & Shapiro, D. A. (1998). Agnew relationship measure. *British Journal of Clinical Psychology, 37*, 155-172.

Anker, M. G., Duncan, B. L., & Sparks, J. A. (2009). Using client feedback to improve couple therapy outcomes: A randomized clinical trial in a naturalistic setting. *Journal of Consulting and Clinical Psychology, 77*, 693-704.

Aten, J. D., Strain, J. D., & Gillespie, R. E. (2008). A transtheoretical model of clinical supervision. *Training and Education in Professional Psychology, 2*, 1-9.

Bahrick, A. S. (1989). *Role induction for counselor trainees: Effects on the supervisory working alliance.* Unpublished doctoral dissertation, Ohio State University.

Baldwin, S. A., Wampold, B. E., & Imel, Z. E. (2007). Untangling the alliance-outcome correlation: Exploring the relative importance of therapist and patient variability in the alliance. *Journal of Consulting and Clinical Psychology, 75*, 842-852.

Bambling, M., King, R., Raue, P., Schweitzer, R., & Lambert, W. (2006). Clinical supervision: It's influence on client-rated working alliance and client symptom reduction in the brief treatment of major depression. *Psychotherapy Research, 16,* 317-331.

Barber, J. P., Connolly, M. B., Crits-Christoph, P., Gladis, L., & Siqueland, L. (2000). Alliance predicts patients' outcomes beyond in-treatment change in symptoms. *Journal of Consulting and Clinical Psychology, 68*, 1027-1032.

Barrett-Lennard, D. T. (1962). Dimensions of therapist response as causal factors in therapeutic change. *Psychological Monographs, 76*.

Barrett-Lennard, D. T. (1969). *Technical note on the 64-item revision of the relationship inventory*. Ontario, Canada: University of Waterloo.

Beinart, H. (2002). *An exploration of the factors which predict the quality of the relationship in clinical supervision.* Unpublished Dissertation, Open University/British Psychological Society, Oxford.

Bennett, S., BrintzenhofeSzoc, K., Mohr, J., & Saks, L. V. (2008). General and supervision-specific attachment styles: relations to student perceptions of field supervisors. *Journal of Social Work Education, 44*, 75-94.

Bordin, E. S. (1979). The generalizability of the psychoanalytic concept of the working alliance. *Psychotherapy: Theory, Research, and Practice, 16*, 252-260.

Bordin, E. S. (1983). A working alliance based model of supervision. *The Counselling Psychologist, 11*, 35-41.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3,* 77-101.

British Psychological Society. (1999). *Criteria for accrediting and recommending courses*. Leicester: BPS: Division of Clinical Psychology.

British Psychological Society. (2003). *Policy guidelines on supervision in the practice of clinical Psychology*. Leicester: Author.

Bradley, L. J. (1989). *Counsellor Supervision: Principles, Process, and Practice* (2nd ed.). Muncie, IL: Accelerated Development.

Brown, J., Dreis, S., & Nace, D. K. (1999). What really makes a difference in psychotherapy outcome? Why does managed care want to know. In M. A. Hubble, B. L. Duncan & S. D. Miller (Eds.), *The Heart and Soul of Change: What Works in Therapy*. Washington, DC: APA Press.

Burns, D. D., & Nolen-Hoeksema, S. (1992). Therapeutic empathy and recovery from depression in cognitive-behavioral therapy: A structural equation model. *Journal of Consulting and Clinical Psychology, 60*, 441-449.

Castonguay, L. G., Constantino, M. J., & Holtforth, M. G. (2006). The working alliance: where are we and where should be go. *Psychotherapy: Theory, Research, and Practice, 43*, 271-279.

Cattell, R. B., & Kline, P. (1977). *The Scientific Analysis of Personality and Motivation*. New York: Academic Press.

Connors, G. J., DiClemente, C. C., Carroll, K. M., Longabaugh, R., & Donovan, D. M. (1997). The therapeutic alliance and its relationship to alcoholism treatment participation and outcome. *Journal of Consulting and Clinical Psychology, 65*, 588-598.

Cronbach, L. J., & Meehl, P. E. (1955). Construct validity in psychological tests. *Psychological Bulletin, 52*, 281-302.

Dalton, J. E. (1983). Sex differences in communication skills as measured by a modified relationship inventory. *Sex Roles, 9*, 195-204.

Department of Health (1998). *A first class service: Quality in the new NHS*. London: Author.

Doehrman, M. J. (1976). Parallel process in supervision and psychotherapy. *Bulletin of the Menninger Clinic, 40*, 1-104.

Duncan, B. L., Miller, S. D., Sparks, S. D., Reynolds, J., Claud, D., Brown, J., et al. (2003). The session rating scale: Psychometric properties of a "working" alliance scale. *Journal of Brief Therapy, 3*, 3-12.

Efstation, J. F., Patton, M. J., & Kardash, C. A. (1990). Measuring the working alliance in counsellor supervision. *Journal of Counselling Psychology, 37*, 322-329.

Ekstein, R., & Wallerstein, R. S. (1972). *The Teaching and Learning of Psychotherapy*. New York: Basic Books.

Ellis, M. V. (1991). Critical incidents in clinical supervision and in supervisor supervision: Assessing supervisory issues. *Journal of Counselling Psychology, 38*, 342-349.

Ellis, M. V., Barr, A., & Deihl, L. M. (2007). Dimensionality of the clinical supervision working alliance. *Unpublished Manuscript*.

Ellis, M. V., & Ladany, N. (1997). Inferences concerning supervisees and clients in clinical supervision. In C. E. Watkins (Ed.), *Handbook of Psychotherapy Supervision* (pp. 447-504). New York: Wiley.

Field, A. (2000). Cluster Analysis. Retrieved 25/04/2010, 2010, from http://www.statisticshel.com/cluster.pdf

Field, A. (2009). *Discovering Statistics Using SPSS* (3rd ed.). London: Sage.

Friedlander, M. L., Siegel, S., & Brennock, K. (1989). Parallel processes in counselling and supervision: A case study. *Journal of Counselling Psychology, 36*, 149-157.

Friedlander, M. L., & Snyder, J. (1983). Trainees' expectations for the supervisory process: Testing a developmental model. *Counsellor Education and Supervision, 22*, 342-348.

Friedlander, M. L., & Ward, L. G. (1984). Development and validation of the Supervisory Styles Inventory. *Journal of Counselling Psychology, 31*, 541-557.

Gard, D. E., & Lewis, J. M. (2008). Building the supervisory alliance with beginning therapists. *The Clinical Supervisor, 27*, 39-60.

Gaston, L. (1990). The concept of the alliance and its role in psychotherapy: Theoretical and empirical considerations. *Psychotherapy 27*, 143-152.

Gelso, C. J., & Carter, J. A. (1985). The relationship in counselling and psychotherapy: Components, consequences, and theoretical antecedents. *The Counselling Psychologist, 13*, 155-243.

Gilbert, M., & Evans, K. (2001). *Psychotherapy Supervision: An Integrative-relational approach*. Philadelphia: Open University Press.

Grawe, K. (1999). *Psychologische therapie [Psychological Therapy]*. Bern, Germany: Hans Huber.

Gray, L. A., Ladany, N., Walker, J. A., & Ancis, J. R. (2001). Psychotherapy trainees' experience of counterproductive events in supervision. *Journal of Counselling Psychology, 48*, 371-383.

Greenson, R. R. (1967). *The Technique and Practice of Psychoanalysis*. New York: International Universities Press, Inc.

Guyatt, G. H., Townsend, M., Berman, L. B., & Keller, J. L. (1987). A comparison of likert and visual analogue scales for measuring change and function. *Journal of Chronic Disease, 40,* 1129-1133.

Harmon, S. C., Lambert, M. J., Smart, D. M., Hawkins, E. J., Nielsen, S. L., Slade, K., et al. (2007). Enhancing outcome for potential treatment failures: Therapist-client feedback and clinical support tools. *Psychotherapy Research, 17*, 379-392.

Hartley, D., & Strupp, H. H. (1983). The therapeutic alliance: It's relationship to outcome in brief psychotherapy. In J. Masling (Ed.), *Empirical Studies of Psychoanalytic Theories* (Vol. 1). Hillsdale, N.J: Lawrence Earlbaum.

Hasson, D., & Arnetz, B. B. (2005). Validation and findings comparing VAS vs. likert scales for psychosocial measurements. *International Electronic Journal of Health Education, 8,* 178-192.

Hatcher, R. L., & Barends, A. W. (1996). Patient's view of psychotherapy: Exploratory factor analysis of three alliance measures. *Journal of Consulting and Clinical Psychology, 64*, 1326-1336.

Holloway, E. L. (1987). Developmental models of supervision: Is it development? *Professional Psychology: Research and Practice, 18*, 209-216.

Holloway, E. L. (1997). Structures for the analysis and teaching of supervision. In C. E. Watkins (Ed.), *Handbook of Psychotherapy Supervision*. New York: Wiley.

Holloway, E. L., & Wampold, B. E. (1984). *Dimensions of satisfaction*. Paper presented at the meeting of the American Psychological Association.

Horvath, A. O., & Greenberg, L. (1989). Development and validation of the working alliance inventory. *Journal of Counselling Psychology, 36*, 223-233.

Horvath, A. O., & Symonds, B. D. (1991). Relation between working alliance and outcome in psychotherapy: A meta-analysis. *Journal of Counselling Psychology, 38*, 139-149.

Johnson, L. D. (1995). *Psychotherapy in the Age of Accountability*. New York: Norton.

Kaiser, H. F. (1970). A second generation little jiffy. *Psychometrika, 35*, 401-415.

Kass, R. A., & Tinsley, H. E. A. (1979). Factor analysis. *Journal of Leisure Research, 11*, 120-138.

Klein, D. N., Schwartz, J. E., Santiago, N. J., Vivian, D., & Vocisano, C. (2003). Therapeutic alliance in depression treatment: controlling for prior change and patient characteristics. *Journal of Consulting and Clinical Psychology, 71*, 997-1006.

Kline, P. (1987). *A Handbook of Test Construction*. New York: Methuen & Co.

Kline, P. (2000). *A Psychometrics Primer*. London: Free Association Books.

Krampen, K. (2002). *Stundenbogen fur die Allgemeine und Differentielle Einzelpsychotherapie (STEP) [Questionnaire for the General and Differential single therapy session]*. Gottingen, Germany: Hogrefe.

Ladany, N., Ellis, M. V., & Friedlander, M. L. (1999). The supervisory working alliance, trainee self-efficacy, and satisfaction. *Journal of Counselling and Development, 77*, 447-455.

Ladany, N., & Friedlander, M. L. (1995). The relationship between the supervisory working alliance and the trainees experience of role conflict and role ambiguity. *Counsellor Education and Supervision, 34*, 211-231.

Ladany, N., Hill, C. E., Corbett, M. M., & Nutt, E. A. (1996). Nature, extent, and importance of what psychotherapy trainees do not disclose to their supervisors. *Journal of Counselling Psychology, 43*, 10-24.

Ladany, N., & Lehrman-Waterman, D. (1999). The content and frequency of supervisor self disclosure and the relationship to supervisory working alliance and satisfaction with supervision. *Counsellor Education and Supervision, 38*, 143-160.

Lambert, M. J. (1992). Implications of outcome research for psychotherapy integration. In J. C. Norcross & M. R. Goldstein (Eds.), *Handbook of Psychotherapy Integration* (pp. 94-129). New York: Basic Books.

Lambert, M. J., & Finch, A. E. (1999). The Outcome Questionnaire. In M. E. Maruish (Ed.), *The Use of Psychological Testing for Treatment Planning and Outcomes Assessment.* Mahwah, NJ: Lawrence Erlbaum Associates.

Lambert, M. J., Whipple, J. L., Hawkins, E. J., Vermeersch, D. A., Loma, L., Nelson, S. L., et al. (2003). Is it time for clinicians to routinely track patient outcome? A meta-analysis. *Clinical Psychology: Science and Practice, 10*, 288-301.

Larsen, D. L., Attkinson, C. C., Hargreaves, W. A., & Nguyen, T. D. (1979). Assessment of client/patient satisfaction: Development of a general scale. *Evaluation and Programme Planning, 2*, 197-207.

Lehrman-Waterman, D., & Ladany, N. (2001). Development and validation of the evaluation process within supervision inventory. *Journal of Counselling Psychology, 48*, 168-177.

Loganbill, C. R., Hardy, E. V., & Delworth, U. (1982). Supervision: A conceptual model. *The Counselling Psychologist, 10*, 3-42.

Lubursky, L., Barber, J. P., Siqueland, L., Johnson, S., M, N. L., Frank, A., et al. (1996). The revised helping alliance questionnaire (HAQ-II). *Journal of Psychotherapy Practice and Research, 5*, 260-271.

Lubursky, L., Crits-Christoph, P., Alexander, L., Margolis, M., & Cohen, M. (1983). Two helping alliance methods for predicting outcome of psychotherapy. *Journal of Nervous and Mental Disease, 171,* 480-491.

Lubursky, L., Singer, B., & Lubursky, L. (1975). Comparative studies of psychotherapies: Is it true that "everyone has won and all must have prizes"? *Archives of General Psychiatry, 32*, 995-1008.

Marmar, C. R., Gaston, L., Gallagher, D., & Thompson, L. W. (1987). *Therapeutic alliance and outcome of behavioral, cognitive, and brief dynamic therapy of later-life depression*. Paper presented at the meeting of the Society of for Psychotherapy Research.

Martin, D. J., Garske, J. P., & Davis, K. (2000). Relation of the therapeutic alliance with outcome and other variables: A meta-analytic review. *Journal of Consulting and Clinical Psychology, 68*, 438-450.

Menninger, K. A. (1958). *Theory of Psychoanalytic Technique*. New York: Basic Books.

Miller, S. D., & Duncan, B. L. (2004). *The Outcome and Session Rating Scales: Administration and Scoring Manuals*. Chicago, IL: Authors.

Miller, S. D., Duncan, B. L., Brown, J., Sparks, S. D., & Claud, D. (2003). The outcome rating scale: A preliminary study of the reliability, validity and feasibility of a brief visual analogue measure. *Journal of Brief Therapy, 2*, 91-100.

Milne, D. (2007). An empirical definition of clinical supervision. *British Journal of Clinical Psychology, 46*, 437-447.

Mueller, W. J., & Kell, B. L. (1972). *Coping With Conflict: Supervising Counsellors and Psychotherapists*. New York: Appleton-Century-Crofts.

Nelson, M. L., Barnes, K. L., Evans, A. L., & Triggiano, P. J. (2008). Working with conflict in clinical supervision: Wise supervisors' perspectives. *Journal of Counselling Psychology, 55*, 172-184.

Nelson, M. L., & Friedlander, M. L. (2001). A close look at conflictual supervisory relationships: The trainees perspective. *Journal of Counselling Psychology, 48*, 384-395.

Nguyen, T. D., Attkinson, C. C., & Stegner, B. L. (1983). Assessment of patient satisfaction: development and refinement of service evaluation questionnaire. *Evaluation and Programme Planning, 6*, 299-314.

Norusis, M. J. (2010). *PASW Statistics 18 Statistical Procedures Companion*. New York: Pearson Education.

Olk, M. E., & Friedlander, M. L. (1992). Trainees' experience of role conflict and role ambiguity in supervisory relationships. *Journal of Counselling Psychology, 39*, 389-397.

Orlinsky, D. E., & Howard, K. I. (1987). A generic model of psychotherapy. *Journal of Integrative and Eclectic Psychotherapy, 6*, 6-27.

Palomo, M. (2004). Development and validation of a questionnaire measure of the supervisory relationship (SRQ). *Unpublished Doctoral Thesis*.

Palomo, M., Beinart, H., & Cooper, M. J. (2010). Development and validation of the supervisory relationship questionnaire (SRQ) in UK trainee clinical psychologists. *British Journal of Clinical Psychology, 49*, 131-149.

Patton, M. J. (1984). Managing social interaction in counselling: A contribution from the philosophy of science. *Journal of Counselling Psychology, 31*, 442-456.

Patton, M. J., & Kivlighan, D. M. (1997). Relevance of the supervisory alliance to the counselling alliance and to treatment adherence in counsellor training. *Journal of Counselling Psychology, 44*, 108-115.

Pepinsky, H. B., & Patton, M. J. (1971). *The Psychological Experiment: A Practical Accomplishment*. New York: Pergamon.

Ramoz-Sanchez, L., Esnil, E., Riggs, S., Wright, L. K., Goodwin, A., Touster, L. O., et al. (2002). Negative supervisory effects: Effects on supervision satisfaction and supervisory alliance. *Professional Psychology: Research and Practice, 33*, 197-202.

Reese, R. J., Norsworthy, L. A., & Rowlands, S. R. (2009). Does a continuous feedback system improve psychotherapy outcome. *Psychotherapy Theory, Research, Practice, Training, 46*, 418-431.

Reese, R. J., Usher, E. J., Bowman, D., Norsworthy, L., Halstead, J., Rowlands, S., et al. (in press). Using client feedback in psychotherapy training: An analysis of its influence on supervision and counsellor self-efficacy. *Training and Education in Professional Psychology*.

Riggs, S., & Bretz, K. M. (2006). Attachment processes in the supervisory relationship: An exploratory investigation. *Professional Psychology: Research and Practice, 37*, 558-566.

Robinson, F. P. (1950). *Principles and Procedures in Student Counselling*. New York: Harper.

Rogers, C. R. (1957). The necessary and sufficient conditions of therapeutic personality change. *Journal of Consulting Psychology, 21*, 95-103.

Rosenzweig, S. (1936). Some implicit common factors in diverse methods of psychotherapy. *American Journal of Orthopsychiatry, 6*, 412-415.

Rønnestad, M. H., & Lundquist, K. (2009). *The brief supervisory alliance scale - Trainee Form (BSAS-TF)*. Unpublished manuscript, Oslo, Norway.

Schacht, A. J. (1986). *Supervisor facilitative conditions and effectiveness as perceived by thinking and feeling type supervisees.* Unpublished Doctoral Dissertation, University of Nebraska, Lincoln.

Schacht, A. J., Howe, H. E., & Berman, J. J. (1988). A short form of the Barrett-Lennard Relationship Inventory for supervisory relationships. *Psychological Reports, 63*, 699-706.

Shaufeli, W. B., & Bakker, A. (2003). Utrecht Work Engagement Scale - preliminary manual. Retrieved 14/04/2010, from http://www.shaufeli.com

Shavelson, R. J., & Webb, N. M. (1991). *Generalizability Theory: A Primer*. London: Sage.

Slade, K., Lambert, M. J., Harmon, S. C., Smart, D. M., & Bailey, R. (2008). Improving psychotherapy outcome: The use of immediate electronic feedback and revised clinical support tools. *Clinical Psychology and Psychotherapy, 15*, 287-303.

Smith, A. (2009). *Attachment patterns, supervisory style and the supervisory working alliance.* Unpublished Doctoral Thesis, Lancaster University, Lancaster, UK.

Smith, G. T. (2005). On construct validity: Issues of method and measurement. *Psychological Assessment, 17*, 396-408.

Smith, M. L., & Glass, G. V. (1977). Meta-analysis of psychotherapy outcome studies. *American Psychologist, 32*, 752-760.

Smith, P. C., Kendall, L. M., & Hulin, C. L. (1969). *The Measurement of Satisfaction in Work and Retirement*. Chicago, Ill: Rand McNally.

Spielberger, C. D., Gorsuch, G. A., Lushene, R., Vagg, P. R., & Jacobs, G. A. (1983). *Manual for the State-Trait Anxiety Inventory*. Palo Alto, CA: Consulting Psychologists Press.

Sterba, R. (1937). The fate of the ego in analytic therapy. *International Journal of Psychoanalysis, 15*, 127-159.

Stevens, J. P. (2002). *Applied Multivariate Statistics for the Social Sciences* (4th ed.). Hillsdale, NJ: Erlbaum.

Stiles, W. B., & Snow, J. S. (1984). Counseling session impact as viewed by novice counselors and their clients. *Journal of Counseling Psychology, 31,* 3-12.

Stoltenberg, C. D., & Delworth, U. (1987). *Developmental Supervision: A training model for counsellors and psychotherapists*. San Francisco: Jossey-Bass.

Tabachnick, B. G., & Fidell, L. S. (1983). *Using Multivariate Statistics*. New York: Harper & Row.

Twisk, J. W. R. (2006). *Applied Multilevel Analysis*. Cambridge, UK: Cambridge University Press.

Unsworth, G. (2008). CORE net and ARM-5 – are they worth using? *Counselling at Work, Summer 2008,* 6-10.

van Laerhoven, H. J., van der Zaag-Loonen, H. J., & Derkx, B. H. F. (2004). A comparison of likert scale and visual analogue scales as response options in children's questionnaires. *Acta Paediatrica, 93,* 830-835.

Wampold, B. E. (2001). *The Great Psychotherapy Debate*. Mahwah, NJ: Lawrence Earlbaum.

Watkins, C. E. (1995). Psychotherapy supervision in the 1990's: Some observations and reflections. *American Journal of Psychotherapy, 49*, 568-581.

Watkins, C. E. (1997). *Handbook of Psychotherapy Supervision*. New York: John Wiley & Sons.

Wheeler, S. & Richards, K. (2007). The impact of clinical supervision on counsellors and therapists, their practice and their clients. A systematic review of the literature. *Counselling and Psychotherapy Research, 7,* 54-65.

Whipple, J. L., Lambert, M. J., Vermeersch, D. A., Smart, D. W., Nielsen, S. L., & Hawkins, E. J. (2003). Improving the effects of psychotherapy: The use of early identification of treatment failure and problem-solving strategies in routine practice. *Journal of Counselling Psychology, 50*, 59-68.

Wolfe, B. E., & Goldfried, M. R. (1988). Research on psychotherapy integration: Recommendations and conclusions from a NIMH workshop. *Journal of Consulting and Clinical Psychology, 37*, 369-375.

Worthen, V. E., & Isakson, R. L. (2003). *Enhancing supervisory relationships*. Paper presented at the 111th Annual Conference of the American Psychological Association.

Zarbock, G., Drews, M., Bodansky, A., & Dahme, B. (2009). The evaluation of supervision: Construction of brief questionnaires for the supervisor and supervisee. *Psychotherapy Research, 19*, 194-204.

Zetzel, E. (1956). Current concepts of transference. *International Journal of Psychoanalysis, 37*, 369-375.

# Appendix

## Appendix 1: Measures of the Therapeutic Alliance

| Author/s | Measure | Description |
|---|---|---|
| Johnson (1995) | Session Rating Scale | 10-item scale using likert Scales |
| Horvath & Greenberg (1989) | Working Alliance Inventory | 36-item scales for both counsellor and client |
| Stiles & Snow (1984) | Session Evaluation Questionnaire | 24 bipolar adjective scales to evaluate session |
| Burns & Nolen-Hoeksema (1992) | Empathy Scale | 10-item scale using 4-point likert scales |
| Luborsky et al. (1996) | Helping Alliance Questionnaire (HAQ-II) | 19-item alliance measure |
| Marmar, Gaston, Gallagher, & Thompson (1987) | California Psychotherapy Alliance Scales (CALPAS) | 24-item scale tapping 4 dimensions |
| Luborsky, Crits-Christoph, Alexander, Margolis, & Cohen (1983) | Penn Helping Alliance Rating Scale | 10-item scale focussing on 2 types of alliance |
| Hartley & Strupp (1983) | Vanderbilt Therapeutic Alliance Scale (VTAS) | 44-items measuring contributions to the alliance |
| Agnew-Davis, Stiles, Hardy, Barkham, & Shapiro (1989) | Agnew Relationship Measure (ARM) | A long-form, 28-item client measure, as well as a short 12 item measure for both client and therapist |
| Ducan et al. (2003) | Short Session Rating Scale (SRS) | 4-item measure using visual analogue scales |
| See Unsworth (2008) | Agnew Relationship Measure – 5-item version (ARM-5) | 5-item scale using 7-point likert scales |

# Appendix 2: Measures Used in Item Generation for Scale Construction

**Relationship Inventory**
(Barrett-Lennard relationship inventory – revised)
Schacht 1986

Please rate on the following scales according to your experience of your supervisor in supervision. Circle the number to the left of each item which corresponds to how strongly you feel each statement is true or not true according to the key below.

| I strongly feel it is not true. | I feel it is not true. | I feel it is probably untrue; more untrue than true. | I feel it is probably true; more true than untrue. | I feel it is true. | I strongly feel it is true. |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |

| | | |
|---|---|---|
| 1) | 1 2 3 4 5 6 | My supervisor respected me. |
| 2) | 1 2 3 4 5 6 | My supervisor understood my words but not the way I felt. |
| 3) | 1 2 3 4 5 6 | My supervisor pretended that s/he liked me or understood me more than s/he actually did. |
| 4) | 1 2 3 4 5 6 | My supervisor preferred to talk only about me and not at all about him/her. |
| 5) | 1 2 3 4 5 6 | My supervisor liked seeing me. |
| 6) | 1 2 3 4 5 6 | My supervisor was interesting in knowing what my experiences meant to me. |
| 7) | 1 2 3 4 5 6 | My supervisor was disturbed whenever I talked about or asked about certain things. |
| 8) | 1 2 3 4 5 6 | If I felt negatively towards my supervisor, s/he responded negatively to me. |
| 9) | 1 2 3 4 5 6 | My supervisor appreciated me. |
| 10) | 1 2 3 4 5 6 | Sometimes my supervisor thought that I felt a certain way, because s/he felt that way. |
| 11) | 1 2 3 4 5 6 | My supervisor behaved just the way s/he was, in our relationship. |
| 12) | 1 2 3 4 5 6 | My supervisor would freely tell me his/her own thoughts and feelings when I wanted to know them. |
| 13) | 1 2 3 4 5 6 | My supervisor cared about me. |
| 14) | 1 2 3 4 5 6 | My supervisor's own attitudes towards some of the things I said, or did, stopped him/her from really understanding me. |
| 15) | 1 2 3 4 5 6 | I do not think that my supervisor hid anything from his/herself that s/he felt with me. |

| | | |
|---|---|---|
| 16) | 1 2 3 4 5 6 | Sometimes my supervisor was warmly responsive to me, at other times cold or disapproving. |
| 17) | 1 2 3 4 5 6 | My supervisor was interested in me. |
| 18) | 1 2 3 4 5 6 | My supervisor appreciated what my experiences felt like to me. |
| 19) | 1 2 3 4 5 6 | I felt that I could trust my supervisor to be honest with me. |
| 20) | 1 2 3 4 5 6 | My supervisor adopted a professional role that made it hard for me to know what s/he was like as a person. |
| 21) | 1 2 3 4 5 6 | My supervisor did not really care what happened to me. |
| 22) | 1 2 3 4 5 6 | My supervisor did not realize how strongly I felt about some of the things we discussed. |
| 23) | 1 2 3 4 5 6 | There were times when I felt that my supervisor's outward response was quite different from his/her inner reaction to me. |
| 24) | 1 2 3 4 5 6 | Depending on his/her mood, my supervisor sometimes responded to me with quite a lot more warmth and interest than s/he did at other times. |
| 25) | 1 2 3 4 5 6 | My supervisor seemed to really value me. |
| 26) | 1 2 3 4 5 6 | My supervisor responded to me mechanically. |
| 27) | 1 2 3 4 5 6 | I don't think that my supervisor was being honest with him/herself about the way s/he felt about me. |
| 28) | 1 2 3 4 5 6 | My supervisor wanted to say as little as possible about his/her own thoughts and feelings. |
| 29) | 1 2 3 4 5 6 | My supervisor felt deep affection for me. |
| 30) | 1 2 3 4 5 6 | My supervisor usually understood all of what I said to her/him. |
| 31) | 1 2 3 4 5 6 | Sometimes my supervisor was not at all comfortable but we went on, outwardly ignoring it. |
| 32) | 1 2 3 4 5 6 | My supervisor's general feeling towards me varied considerably. |
| 33) | 1 2 3 4 5 6 | My supervisor regarded me as a disagreeable person. |
| 34) | 1 2 3 4 5 6 | When I did not say what I meant at all clearly, my supervisor still understood me. |
| 35) | 1 2 3 4 5 6 | I felt that my supervisor was being genuine with me. |
| 36) | 1 2 3 4 5 6 | My supervisor's own feelings and thoughts were always available to me, but never imposed on me. |
| 37) | 1 2 3 4 5 6 | At times my supervisor felt contempt for me. |
| 38) | 1 2 3 4 5 6 | Sometimes my supervisor responded quite positively to me, at other times s/he seemed indifferent. |
| 39) | 1 2 3 4 5 6 | My supervisor did not try to mislead me about his/her own thoughts or feelings. |
| 40) | 1 2 3 4 5 6 | My supervisor could be deeply and fully aware of my most painful feelings without being distressed or burdened by them him/herself. |

**Working Alliance Inventory – Trainee Version (WAI-T)**
Bahrick, 1990

The following sentences describe some of the different ways a person might think or feel about his or her supervisor. As you read the sentences, **mentally** insert the name of your supervisor in place of _____ in the text.

| | Never | Rarely | Occasionally | Sometimes | Often | Very Often | Always |
|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 1. I am comfortable with _____. | | | | | | | |
| 2. _____ and I agree about the things I will need to do in supervision. | | | | | | | |
| 3. I am worried about the outcome of our supervision sessions. | | | | | | | |
| 4. What I am doing in supervision gives me a new way of looking at myself as a clinician. | | | | | | | |
| 5. _____ and I understand each other. | | | | | | | |
| 6. _____ perceives accurately what my goals are. | | | | | | | |
| 7. I find what I am doing in supervision confusing. | | | | | | | |
| 8. I believe _____ likes me. | | | | | | | |
| 9. I wish _____ and I could clarify the purpose of our sessions. | | | | | | | |
| 10. I disagree with _____ about what I ought to get out of supervision. | | | | | | | |
| 11. I believe the time _____ and I are spending together is not spent efficiently. | | | | | | | |
| 12. _____ does not understand what I want to accomplish in supervision. | | | | | | | |
| 13. I am clear on what my responsibilities are in supervision. | | | | | | | |
| 14. The goals of these sessions are important to me. | | | | | | | |
| 15. I find what _____ and I are doing in supervision is unrelated to my concerns. | | | | | | | |
| 16. I feel that what _____ and I are doing in supervision will help me to accomplish the changes that I want in order to be a more effective clinician. | | | | | | | |
| 17. I believe _____ is genuinely concerned for my welfare. | | | | | | | |
| 18. I am clear as to what _____ wants me to do in our supervision sessions. | | | | | | | |
| 19. _____ and I respect each other. | | | | | | | |
| 20. I feel that _____ is not totally honest about his/her feelings towards me. | | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 21. I am confident in _____'s ability to supervise me. | | | | | | | |
| 22. _____ and I are working towards mutually agreed-upon goals. | | | | | | | |
| 23. I feel that _____ appreciates me. | | | | | | | |
| 24. We agree on what is important for me to work on. | | | | | | | |
| 25. As a result of our supervision sessions, I am clearer as to how I might improve my clinical skills. | | | | | | | |
| 26. _____ and I trust one another. | | | | | | | |
| 27. _____ and I have different ideas on what I need to work on. | | | | | | | |
| 28. My relationship with _____ is very important to me. | | | | | | | |
| 29. I have the feeling that it is important that I say or do the "right" thing in supervision with _____. | | | | | | | |
| 30. _____ and I collaborate on setting goals for my supervision. | | | | | | | |
| 31. I am frustrated by the things we are doing in supervision. | | | | | | | |
| 32. We have established a good understanding of the kind of things I need to work on. | | | | | | | |
| 33. The things that _____ is asking me to do don't make sense. | | | | | | | |
| 34. I don't know what to expect as a result of my supervision. | | | | | | | |
| 35. I believe the way we are working with my issues is correct. | | | | | | | |
| 36. I believe that _____ cares about me even when I do things that he/she doesn't approve of. | | | | | | | |

**Supervisory Working Alliance Inventory – Supervisee Form (SWAI - supervisee)**
Efstation, Patton, & Kardash (1990)

| | Almost never | | | | | | Almost always |
|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 1. I feel comfortable working with my supervisor. | | | | | | | |
| 2. My supervisor welcomes my explanations about the client's behaviour. | | | | | | | |
| 3. My supervisor makes the effort to understand me. | | | | | | | |
| 4. My supervisor encourages me to talk about my work with clients in ways that are comfortable for me. | | | | | | | |
| 5. My supervisor is tactful when commenting about my performance. | | | | | | | |
| 6. My supervisor encourages me to formulate my own interventions with the client. | | | | | | | |
| 7. My supervisor helps me talk freely in our sessions. | | | | | | | |
| 8. My supervisor stays in tune with me during supervision. | | | | | | | |
| 9. I understand client behaviour and treatment technique similar to the way my supervisor does. | | | | | | | |
| 10. I feel free to mention to my supervisor any troublesome feelings I might have about him/her. | | | | | | | |
| 11. My supervisor treats me like a colleague in our supervisory sessions. | | | | | | | |
| 12. In supervision, I am more curious than anxious when discussing difficulties with clients. | | | | | | | |
| 13. In supervision, my supervisor places a high priority on our understanding the client's perspective. | | | | | | | |
| 14. My supervisor encourages me to take time to understand what the client is saying and doing. | | | | | | | |
| 15. My supervisor's style is to carefully and systematically consider the material I bring to supervision. | | | | | | | |
| 16. When correcting my errors with a client, my supervisor offers alternative ways of intervening with that client. | | | | | | | |
| 17. My supervisor helps me to work within a specific treatment plan with my clients. | | | | | | | |
| 18. My supervisor helps me stay on track during our meetings. | | | | | | | |
| 19. I work with my supervisor on specific goals in the supervisory session. | | | | | | | |

# THE SUPERVISORY RELATIONSHIP QUESTIONNAIRE (SRQ)

Developed by Marina Palomo (supervised by Helen Beinart)

**The following statements describe some of the ways a person may feel about his/her supervisor.**

**To what extent do you agree or disagree with each of the following statements about your relationship with your supervisor? Please tick the column which matches your opinion most closely.**

| | Strongly Disagree | Disagree | Slightly Disagree | Neither Agree nor Disagree | Slightly Agree | Agree | Strongly Agree |
|---|---|---|---|---|---|---|---|
| **SAFE BASE SUBSCALE** | | | | | | | |
| 1. My Supervisor was respectful of my views and ideas | | | | | | | |
| 2. My supervisor and I were equal partners in supervision | | | | | | | |
| 3. My supervisor had a collaborative approach in supervision | | | | | | | |
| 4. I felt safe in my supervision sessions | | | | | | | |
| 5. My supervisor was non-judgemental in supervision | | | | | | | |
| 6. My supervisor treated me with respect | | | | | | | |
| 7. My supervisor was open-minded in supervision | | | | | | | |
| 8. Feedback on my performance from my supervisor felt like criticism | | | | | | | |
| 9.The advice I received from my supervisor was prescriptive rather than collaborative | | | | | | | |
| 10. I felt able to discuss my concerns with my supervisor openly | | | | | | | |
| 11. Supervision felt like an exchange of ideas | | | | | | | |
| 12. My supervisor gave feedback in a way that felt safe | | | | | | | |
| 13. My supervisor treated me like an adult | | | | | | | |
| 14. I was able to be open with my supervisor | | | | | | | |
| 15. I felt if I discussed my feelings openly with my supervisor, I would be negatively evaluated | | | | | | | |
| **STRUCTURE SUBSCALE** | | | | | | | |
| 16. My supervision sessions took place regularly | | | | | | | |
| 17. Supervision sessions were structured | | | | | | | |
| 18. My supervisor made sure that our supervision sessions were kept free from interruptions | | | | | | | |
| 19. Supervision sessions were regularly cut short by my supervisor | | | | | | | |
| 20. Supervision sessions were focused | | | | | | | |
| 21. My supervision sessions were disorganised | | | | | | | |
| 22. My supervision sessions were arranged in advance | | | | | | | |
| 23. My supervisor and I both drew up an agenda for supervision together | | | | | | | |
| **COMMITMENT SUBSCALE** | | | | | | | |
| 24. My supervisor was enthusiastic about supervising me | | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 25. My supervisor appeared interested in supervising me | | | | | | | |
| 26. My supervisor appeared uninterested in me | | | | | | | |
| 27. My supervisor appeared interested in me as a person | | | | | | | |
| 28. My supervisor appeared to like supervising | | | | | | | |
| 29. I felt like a burden to my supervisor | | | | | | | |
| 30. My supervisor was approachable | | | | | | | |
| 31. My supervisor was available to me | | | | | | | |
| 32. My supervisor paid attention to my spoken feelings and anxieties | | | | | | | |
| 33. My supervisor appeared interested in my development as a professional | | | | | | | |
| **REFLECTIVE EDUCATION SUBSCALE** | | | | | | | |
| 34. My supervisor drew from a number of theoretical models | | | | | | | |
| 35.My supervisor drew from a number of theoretical models flexibly | | | | | | | |
| 36. My supervisor gave me the opportunity to learn about a range of models | | | | | | | |
| 37. My supervisor encouraged me to reflect on my practice | | | | | | | |
| 38. My supervisor linked theory and clinical practice well | | | | | | | |
| 39. My supervisor paid close attention to the process of supervision | | | | | | | |
| 40. My supervisor acknowledged the power differential between supervisor and supervisee | | | | | | | |
| 41. My relationship with my supervisor allowed me to learn by experimenting with different therapeutic techniques | | | | | | | |
| 42. My supervisor paid attention to my unspoken feelings and anxieties | | | | | | | |
| 43. My supervisor facilitated interesting and informative discussions in supervision | | | | | | | |
| 44. I learnt a great deal from observing my supervisor | | | | | | | |
| **ROLE MODEL SUBSCALE** | | | | | | | |
| 45. My supervisor was knowledgeable | | | | | | | |
| 46. My supervisor was an experienced clinician | | | | | | | |
| 47. I respected my supervisor's skills | | | | | | | |
| 48. My supervisor was knowledgeable about the organisational system in which they worked | | | | | | | |
| 49. Colleagues appeared to respect my supervisor's views | | | | | | | |
| 50. I respected my supervisor as a professional | | | | | | | |
| 51. My supervisor gave me practical support | | | | | | | |
| 52. I respected my supervisor as a clinician | | | | | | | |
| 53. My supervisor was respectful of clients | | | | | | | |
| 54. I respected my supervisor as a person | | | | | | | |
| 55. My supervisor appeared uninterested in his / her clients | | | | | | | |
| 56. My supervisor treated his / her colleagues with respect | | | | | | | |

| FORMATIVE FEEDBACK SUBSCALE | | | | | | | |
|---|---|---|---|---|---|---|---|
| 57. My supervisor gave me helpful negative feedback on my performance | | | | | | | |
| 58. My supervisor was able to balance negative feedback on my performance with praise | | | | | | | |
| 59. My supervisor gave me positive feedback on my performance | | | | | | | |
| 60. My supervisor's feedback on my performance was constructive | | | | | | | |
| 61. My supervisor paid attention to my level of competence | | | | | | | |
| 62. My supervisor helped me identify my own learning needs | | | | | | | |
| 63. My supervisor did not consider the impact of my previous skills and experience on my learning needs | | | | | | | |
| 64. My supervisor thought about my training needs | | | | | | | |
| 65. My supervisor gave me regular feedback on my performance | | | | | | | |
| 66. As my skills and confidence grew, my supervisor adapted supervision to take this into account | | | | | | | |
| 67. My supervisor tailored supervision to my level of competence | | | | | | | |

**Scoring Key**

| | |
|---|---|
| | Scored 1 (Strongly Disagree) to 7 (Strongly Agree) |
| | ***Reverse Scoring***<br>Scored 7 (Strongly Disagree) to 1 (Strongly Agree) |

**Evaluation Process within Supervision Inventory (EPSI)**
Lehrman-Waterman & Ladany (2001)

| **Goal setting** | Strongly disagree | Disagree | Slightly disagree | Neither agree nor disagree | Slightly agree | Agree | Strongly agree |
|---|---|---|---|---|---|---|---|
| 1. The goals my supervisor and I generated for my training seem important | | | | | | | |
| 2. My supervisor and I created goals which were easy for me to understand | | | | | | | |
| 3. The objectives my supervisor and I created were specific | | | | | | | |
| 4. My supervisor and I created goals that were realistic | | | | | | | |
| 5. I think my supervisor would have been against my reshaping/changing my learning objectives over the course of our work together | | | | | | | |
| 6. My supervisor and I created which seemed too easy for me | | | | | | | |
| 7. My supervisor and I created goals which were measurable | | | | | | | |
| 8. I felt uncertain as to what my most important goals were for this training experience | | | | | | | |
| 9. My training objectives were established early in our relationship | | | | | | | |
| 10. 0y supervisor and I never had a discussion about my objectives for my training experience | | | | | | | |
| 11. My supervisor told me what he or she wanted me to learn from the experience without inquiring about what I hoped to learn | | | | | | | |
| 12. Some of the goals my supervisor and I established were not practical in light of the resources available at my site (e.g. requiring videotaping and not providing equipment) | | | | | | | |
| 13. My supervisor and I set objectives which seemed practical given the opportunities available at my site (e.g. if career counselling skills was a goal, was able to work with people with career concerns) | | | | | | | |

| **Feedback** | Strongly disagree | Disagree | Slightly disagree | Neither agree nor disagree | Slightly agree | Agree | Strongly agree |
|---|---|---|---|---|---|---|---|
| 1. My supervisor welcomed comments about his or her style as a supervisor | | | | | | | |
| 2. The appraisal I received from my supervisor seemed impartial | | | | | | | |
| 3. My supervisor's comments about my were work understandable | | | | | | | |
| 4. I didn't receive information about how I was doing as a clinician until late in the placement | | | | | | | |
| 5. I had a summative, formal evaluation of my work at the end of the placement | | | | | | | |
| 6. My supervisor balanced his or her feedback between positive and negative statements | | | | | | | |
| 7. The feedback I received from my supervisor was based upon his or her direct observation of my work | | | | | | | |
| 8. The feedback I received was directly related to the goals we established | | | | | | | |

# Appendix 3: Questionnaire Items Removed from Analysis at Qualitative Sort

‘I understand client behaviour and treatment technique similar to the way my supervisor does’

‘My supervisor gave me practical support’

‘My supervisor was open minded in supervision’

‘What I am doing in supervision gives me a new way of looking at myself as a counsellor’

# Appendix 4: Sample Questionnaire Items Grouped into Themes.

**Understanding client's perspective**
'My supervisor welcomes my explanations about the client's behaviour'

'In supervision, my supervisor places a high priority on our understanding the client's perspective'

'My supervisor encourages me to take time to understand what the client is saying and doing'

**Feeling safe/comfortable**
'Supervisor could be deeply and fully aware of my most painful feelings without being distressed or burdened by them him/herself'

'My supervisor encourages me to talk about my work with clients in ways that are comfortable for me'

'My supervisor was approachable'

'Sometimes supervisor was warmly responsive to me, at other times cold or disapproving'

**Relationship**
'Supervisor appreciated me'

'Supervisor felt deep affection for me'

'Supervisors general feeling towards me varied considerably'

**Power**
'My supervisor acknowledged the power differential between supervisor and supervisee'

'My supervisor and I were equal partners in supervision'

'My supervisor treated me like an adult'

**Supervisor knowledge, credibility, and skills**
'My supervisor was knowledgeable about the organisational system in which they worked'

'I respected my supervisor as a clinician'

‘My supervisor drew from a number of theoretical models’

**Feedback**
‘I didn’t receive information about how I was doing as a counsellor until late in the semester’

‘My supervisor balanced his or her feedback between positive and negative statements’

‘Feedback on my performance from my supervisor felt like criticism’

**Sensitivity**
‘Supervisor did not realise how strongly I felt about some of the things we discussed’

‘Supervisor responded to me mechanically’

‘My supervisor paid attention to my unspoken feelings and anxieties’

**Facilitating learning**
‘My relationship with my supervisor allowed me to learn by experimenting with different therapeutic techniques’

‘My supervisor helped me identify my own learning needs’

‘My supervisor facilitated interesting and informative discussions in supervision’

**Practical arrangements for supervision**
‘My supervision sessions took place regularly’

‘My supervisor helps me stay on track during our meetings’

‘My supervisor made sure that our supervision sessions were kept free from interruptions’

‘My supervisor helps me work within a specific treatment plan with my clients’

**Supervisor disclosure**
‘Supervisor adopted a professional role that made it hard for me to know what s/he was like as a person’

‘Sometimes supervisor was not at all comfortable but we went on, outwardly ignoring it’

‘Supervisor’s own feelings and thoughts were always available to me, but never imposed on me’

**Positive outcome of supervision**
‘I learnt a great deal from observing my supervisor’

‘I feel that what my supervisor and I are doing in supervision will help me to accomplish the changes that I want in order to be a more effective counsellor’

**Contracting/goals**
‘My supervisor and I created goals that seemed too easy for me’

‘The objectives my supervisor and I created were specific’

‘My training objectives were identified early in our relationship’

# Appendix 5: Questionnaire Pack for Scale Development

## Participant Information Sheet for Scale Development

Version 2. 29th May 2009

| | |
|---|---|
| *Title of Study:* | The Development of a Short Form Measure of the Supervisory Alliance |
| *Principal investigator:* | Nigel Wainwright, Psychologist in Clinical Training |
| *Supervisors:* | Dr Gary Latchford, Consultant Clinical Psychologist<br>Dr Dave Green, Consultant Clinical Psychologist |
| *Contact details:* | Clinical Psychology Admin Office,<br>University of Leeds<br>Charles Thackrah Building<br>101 Clarendon Road<br>Leeds, LS2 9LJ<br><br>Tel: 0113 343 2732 (Psychology Admin)<br>e-mail: umnaw@leeds.ac.uk |

**About me**

I am a Psychologist in Clinical Training on the University of Leeds clinical training programme. I am looking for help from fellow trainees. I am at the end of my second year and am aiming to try and collect my first wave of data for my thesis now so that I can analyse it over the summer.

**Why have you been invited to take part in the study?**

You have been invited to take part in the study because you are currently enrolled on a doctoral degree in Clinical Psychology, and will be engaged in clinical practice and receiving regular clinical supervision. You are under no obligation to take part in this study, the decision is yours.

**What is the purpose of the study?**

The aim of the study is to develop a new brief measure of the alliance formed between supervisor and supervisee in clinical supervision. This measure will hopefully be used by supervisors to improve their supervisory practice. As part of the scale development you will be asked to complete a measure of the supervisory alliance that comprises questions taken from a variety of instruments measuring this construct. Your responses will be used in an analysis designed to construct a short measure of between 4 and 6 items.

The rationale for the development of the new measure is that there is currently no brief measure that taps the supervisory alliance. It has been argued that supervisees

regard the supervisory alliance as the single most important component in clinical supervision (Ellis, 1991). Holloway (1987) concluded that the alliance might be the responsible mechanism in trainee development. Furthermore, Rames-Sanchez, Esnil, Riggs, Wright, Goodwin, Touster, et al. (2002) found a significant positive relationship between supervisee ratings of the supervisory alliance and trainee developmental level and trainee satisfaction. It should therefore be seen as a key task of supervision to be mindful of the alliance between supervisee and supervisor. It has also been argued that the supervisory working alliance is dynamic, with its measurement requiring multiple measurements over time (Ladany, Ellis, & Friedlander, 1999).

The importance of the supervisory working alliance suggests that measurement or monitoring of this construct is not only important in research but also in everyday clinical practice. Although a number of measures of the supervisory working alliance have been developed they tend to be too long for use each session. Such a measure would facilitate focus on the alliance and would provide an invaluable feedback mechanism on the alliance from supervisee to supervisor. The aim of the present research is to develop a measure that can be feasibly used to monitor the supervisory alliance from the perspective of the supervisee in each supervision session.

**What will be involved if I take part in the study?**

If you decide to take part in the study you will first be asked to sign a consent form. This is simply to keep a record that shows that you have given permission to take part in the study. Secondly, you will be given a questionnaire. This will be given by the principal investigator when visiting your course. The questionnaire should take you approximately 10 minutes to complete. The questionnaire will include questions about your demographics, year of study, and your current placement. You will not be asked to provide your name and so your identity will remain anonymous. You will then be asked a number of questions about your perceptions of the alliance between yourself and your supervisor.

It is important that you complete the questionnaire alone and don't confer with your course-mates. If you have any questions when completing the questionnaire, the principal investigator will be on hand to help. Once you have completed the questionnaire, your responses will be collated along with all the other participants' responses. They will then be used in psychometric analysis to investigate the factor structure of the questions we have asked and to develop the new brief measure of the supervisory alliance.

**Will information obtained in the study be confidential?**

The information collected in this study will not be recorded by your course and will not be made available to your supervisor. Because you will not provide your name, the investigators will not know who you are throughout the course of the study. The consent form you will sign if you agree to take part in the study will be separated from the questionnaire that you complete, so your responses will not be linked to your name in any way. Anything you fill out or sign (e.g. consent form) will be treated with the usual degree of confidentiality under the data protection act. Questionnaires and consent forms will be kept in a locked cabinet within the Clinical Psychology department at the University of Leeds for a period of five years. Following this they will be destroyed.

**What if I am harmed by the study?**

It is not anticipated that you will come to any physical and/or emotional harm by taking part in this study. However the questionnaire may result in you reflecting on the alliance you have with your supervisor, which may lead to an emotional response. If you feel troubled by the alliance you have with your current placement supervisor you have a number of options. You could discuss how you feel with your placement supervisor. However if you do not feel able to do this we would recommend that you speak to either your clinical tutor or clinical director on your course.

**What happens if I do not wish to participate in this study or wish to withdraw from the study?**

Taking part in this study is voluntary. If you do not wish to participate in this study, or if you wish to withdraw from the study at any time you can do so without giving any reasons for your decision. Your decision to withdraw will be confidential and your course will not be aware of your decision.

Please do not hesitate to contact the principal investigator for more information about this study; or if there was anything in this leaflet you didn't understand and would like explaining further.

**I want to take part. What do I do now?**

If you are willing to participate you will be asked to complete a consent form and then the questionnaire. Once you have completed both they will be collected by the principle investigator.

**What happens next?**

As previously noted, your responses will be collated and analysed in order to construct the new short form measure. Following this we hope to analyse the new scale and obtain psychometric data, hopefully demonstrating its reliability and validity. To do this we will be recruiting more participants who are current Clinical Psychology trainees to complete the new measure along with a few other measures that will be used in the validation process. You may be contacted in 3 to 6 months to ask if you would like to participate in the second part of the scale development.

If you are interested to know the findings of the study, please feel free to email the principal investigator and he will place you on a mailing list for further information.

**Thank you for reading this information.**

Nigel Wainwright
29th May 2009

# Participant Consent Form

| | |
|---|---|
| *Title of Study:* | The Development of a Short Form Measure of the Supervisory Alliance |
| *Principal investigator:* | Nigel Wainwright, Psychologist in Clinical Training |
| *Supervisors:* | Dr Gary Latchford, Consultant Clinical Psychologist<br>Dr Dave Green, Consultant Clinical Psychologist |
| *Contact details:* | Clinical Psychology Admin Office,<br>University of Leeds<br>Charles Thackrah Building<br>101 Clarendon Road<br>Leeds, LS2 9LJ<br><br>Tel: 0113 343 2732 (Psychology Admin)<br>Fax: 0113 243 3719<br>e-mail: umnaw@leeds.ac.uk |

Please delete as applicable

| | |
|---|---|
| I have read the participant information sheet. | Y/N |
| I have had the opportunity to ask questions and discuss the scale development project | Y/N |
| I understand that my responses will remain strictly confidential. | Y/N |
| I understand that I am free to withdraw from the study at any stage without giving a reason. | Y/N |
| I understand that taking part in this study will not have any effect upon my training and that my responses will not be seen by my course or supervisor. | Y/N |
| I agree to take part in this study. | Y/N |

Signature……

Name……..

Date…….

# Demographic Information

1. Initials _____
2. Sex _____
3. Age_____
4. Year of study_____
5. Course _____
6. Description of current placement _____
7. Sex of current placement supervisor _____
8. Length of time with current placement supervisor _____
9. When was your last supervision session _____

**Please remember that all information will remain confidential and will be stored in a locked cabinet. Your consent form will be detached from all other information so that you are not personally identifiable.**

# Experimental Questionnaire

**Instructions:**

In order to help us understand how you feel about the alliance you have with your **current** supervisor, please place a mark on the lines to indicate your agreement with the statements above them for your **last** supervision session. Marks to the left indicate low levels of agreement. Marks to the right indicate high levels of agreement.

1. My supervisor encourages me to take time to understand my clients.

I----------I

2. I felt able to discuss my concerns with my supervisor openly.

I----------I

3. My supervisor liked seeing me.

I----------I

4. Supervision felt like an exchange of ideas.

I----------I

5. I felt that my supervisor was being genuine.

I----------I

6. My supervisor was knowledgeable.

I----------I

7. My supervisor gave me regular feedback.

I----------I

8. I respected my supervisor.

I----------I

9. Supervision sessions are focused.

I----------I

10. My supervisor makes an effort to understand me.

I----------I

11. My supervisor linked theory and practice well.

I----------I

12. My supervisor appeared interested in me.

I----------I

13. My supervisor encouraged me to reflect on my practice.

I----------I

14. Supervision sessions are structured.

I----------I

15. My supervisor appreciated what my experiences felt like to me.

I----------I

16. I felt comfortable working with my supervisor.

I----------I

17. My supervisor helped me identify my own learning needs.

I----------I

18. My supervisor's feedback on my performance was constructive.

I----------I

19. My supervisor stays in tune with me during supervision.

I----------I

20. My supervisor talked about his/her own thoughts/feelings.

I----------I

21. My supervisor was respectful of my views and ideas.

I----------I

22. My supervisor and I understand each other.

I----------I

23. Supervision was helpful to me.

I----------I

24. My supervisor and I agree about the things I need to do in supervision

I----------I

25. My supervisor has a collaborative approach in supervision.

I----------I

**Thank you for your time in completing this questionnaire.**

# Appendix 6: Original 3-item LASS Measure

**Instructions:** Please place a mark on the lines to indicate your agreement with the statements above them for your **last** supervision session. Marks to the left indicates low agreement. Marks to the right indicates high agreement.

(Relationship)
My supervisor and I understood each other
I----------I

(Approach)
This supervision session was focused
I----------I

(Meeting my needs)
This supervision session was helpful to me
I----------I

# Appendix 7: Research Memo from DG Giving a Summary of Feedback from the Glasgow Supervision Workshop

Three main pieces of feedback:

1. The description of the first item as "relationship" led several people to comment that this wording implied something longer than the experience of a single session of supervision. More of a trait than state measure if you like. So may result in minimal shift in scores across different sessions

2. Linked to the above, several members of the audience while very sympathetic to our intentions and the brief format were concerned that trainees would still be very wary of giving anything but highly skewed positive feedback. We know this from other research but it might be worth thinking about the instructions to both supervisor and supervisee.

3. Finally a couple of folk said they preferred the bipolar format of the SRS (in which both ends of the scale are given verbal descriptions) to the current format we are employing. Food for thought?

# Appendix 8: Final Version of the Leeds Alliance in Supervision Scale (LASS)

## Leeds Alliance in Supervision Scale (LASS)

**Instructions:**
Please place a mark on the lines to indicate how you feel about your supervision session

| | | |
|---|---|---|
| This supervision session was not focused | (Approach)<br>I----------I | This supervision session was focused |
| My supervisor and I did not understand each other in this session | (Relationship)<br>I----------I | My supervisor and I understood each other in this session |
| This supervision session was not helpful to me | (Meeting my needs)<br>I----------I | This supervision session was helpful to me |

# Appendix 9: Questionnaire Pack for LASS Validation

## Participant Information Sheet for Scale Validation

Version 3. 11th December 2009

| | |
|---|---|
| *Title of Study:* | The Development of a Short Form Measure of the Supervisory Alliance |
| *Principal investigator:* | Nigel Wainwright, Psychologist in Clinical Training |
| *Supervisors:* | Dr Gary Latchford, Consultant Clinical Psychologist<br>Dr Dave Green, Consultant Clinical Psychologist |
| *Contact details:* | Clinical Psychology Admin Office,<br>University of Leeds<br>Charles Thackrah Building<br>101 Clarendon Road<br>Leeds, LS2 9LJ<br><br>e-mail: umnaw@leeds.ac.uk |

**About me**

I am a Psychologist in Clinical Training on the University of Leeds clinical training programme. I am looking for help from fellow trainees. I am in my third year and am now collecting my second wave of data for my thesis.

**Why have you been invited to take part in the study?**

You have been invited to take part in the study because you are currently enrolled on a doctoral degree in Clinical Psychology, and will be engaged in clinical practice and receiving regular clinical supervision.

**What is the purpose of the study?**

The aim of the study is to develop and investigate the psychometric properties of a new short-form measure of the alliance formed between supervisor and supervisee in clinical supervision. The project is now at the stage where data needs to be collected and analysed to investigate the psychometric properties of the new measure.

The rationale for the development of the new measure is that there is currently no *brief* measure of the supervisory alliance that can be used both as a measure of this construct and as a tool to foster the supervisory alliance. It has been argued that supervisees regard the supervisory alliance as the single most important component in clinical supervision (Ellis, 1991). Holloway (1987) concluded that the alliance might be the responsible mechanism in trainee development. Furthermore, Rames-Sanchez et al (2002) found a significant positive relationship between supervisee ratings of the alliance and trainee developmental level and satisfaction. It should therefore be seen as a key task of supervision to be mindful of the alliance between supervisee and

supervisor. It has also been argued that the supervisory alliance is dynamic, and requires multiple observations over time (Ladany, Ellis, & Friedlander, 1999).

The importance of the supervisory alliance suggests that measurement or monitoring of this construct is not only important in research but also in everyday clinical practice. Although a number of measures of the supervisory working alliance have been developed they tend to be too long for use in each session. Such a measure would facilitate focus on the alliance and would provide an invaluable feedback mechanism on the alliance from supervisee to the supervisor. The aim of the present research is to develop and validate a measure that can be feasibly used to monitor the supervisory alliance from the perspective of the supervisee in *each* supervision session.

**What will be involved if I take part in the study?**

If you decide to take part in the study you will be asked to sign a consent form. You will then be given a questionnaire pack. These will be provided by the principal investigator when visiting your course or will be sent out in the post.

The questionnaire pack includes a demographic questionnaire, and a number of questionnaires that will ask about your experiences of clinical supervision. These questionnaires are the new short-form supervisory alliance measure, the Supervisory Relationship Questionnaire (Palomo 2004), the Supervisory Satisfaction Questionnaire (Ladany, Hill, Corbett, & Nutt 1996), and the Role Conflict Role Ambiguity Inventory (Olk & Friedlander, 1992). You will be asked to complete all five questionnaires on week 1. The questionnaire pack will also contain an additional two copies of the short-form supervisory alliance measure. You will be asked to complete a short-form supervisory alliance measure a week after completing the first set of measures (week 2), and again a further week after that (week 3). Completing questionnaires on week 1 should take no longer than 20 to 25 minutes. Completing the questionnaire on week 2 and week 3 should take less than 1-minute.

At no point on any questionnaire will you be asked to provide your name or any information that would make you personally identifiable. Although you will be required to provide your name on the consent form, these will be separated from your completed questionnaires. Your responses will therefore remain anonymous.

It is important that you complete the questionnaires alone and don't confer with your course-mates. If you have any questions when completing the questionnaire, please contact the principal researcher at umnaw@leeds.ac.uk . Once you have completed the questionnaire, you should return them in the pre-paid addressed envelope provided. Your responses will then be collated along with all the other participants' responses. They will then be used to investigate the psychometric properties of the new short-form measure of the supervisory alliance.

**Will information obtained in the study be confidential?**

The information collected in this study will not be recorded by your course and will not be made available to your supervisor. Because you will not provide your name on any questionnaire, the investigators will not know who you are throughout the course of the study. The consent form you will sign if you agree to take part in the study will be separated from the questionnaire that you complete, so your responses will not be linked to your name in any way. Anything you fill out or sign (e.g. consent form) will be

treated with the usual degree of confidentiality under the data protection act. Questionnaires and consent forms will be kept in a locked cabinet within the Clinical Psychology department at the University of Leeds for a period of five years. Following this they will be destroyed.

**What if I am harmed by the study?**

It is not anticipated that you will come to any physical and/or emotional harm by taking part in this study. However the questionnaire may result in you reflecting on the alliance you have with your supervisor, which may lead to an emotional response. If you feel troubled by the alliance you have with your current placement supervisor you have a number of options. You could discuss how you feel with your placement supervisor. However if you do not feel able to do this we would recommend that you speak to either your clinical tutor or clinical director on your course.

What happens if I do not wish to participate in this study or wish to withdraw from the study?

Taking part in this study is voluntary. If you do not wish to participate in this study, or if you wish to withdraw from the study at any time you can do so without giving any reasons for your decision. Your decision to withdraw will be confidential and your course will not be aware of your decision.

**I want to take part. What do I do now?**

You may have received this information sheet because the principal investigator is due to visit your course shortly to speak to you about the research and give you a questionnaire pack. Alternatively you may have already agreed to be contacted by the principal investigator and for a questionnaire pack to be sent to you in the post. Upon receiving a questionnaire, if you are willing to participate you will be asked to complete a consent form and then the questionnaire pack. Once you have completed both you should return them in the envelope provided.

**What happens next?**

As previously noted, your responses will be collated and analysed in order to investigate the psychometric properties of the short-form measure of the supervisory alliance. If the research proves a success the study will be published and the measure will be made freely available online for you to use as either a supervisee or supervisor in the future.

**Thank you for reading this information.**

Nigel Wainwright
11th December 2009

# Participant Instruction Sheet for Completing Measures

**Week 1:** (This is when you first get the questionnaire pack)

- Please read information sheet and sign consent form if you want to participate
- Please complete demographic questionnaire
- Please complete the short-form supervisory alliance measure
- Please complete the Supervisory Relationship Questionnaire
- Please complete the Supervisory Satisfaction Questionnaire
- Please complete the Role Conflict Role Ambiguity Inventory

**Week 2:** (Approximately 1-week after completing the first set of measures)

- Please complete the short-form supervisory alliance measure regardless of when your last supervision session was. Please note on the measure the date of your last supervision session.

**Week 3:** (Approximately 2-weeks after completing the first set of measures)

- Please complete the short-form supervisory alliance measure regardless of when your last supervision session was. Please note on the measure the date of your last supervision session.

# Participant Consent Form

| | |
|---|---|
| *Title of Study:* | The Development of a Short Form Measure of the Supervisory Alliance |
| *Principal investigator:* | Nigel Wainwright, Psychologist in Clinical Training |
| *Supervisors:* | Dr Gary Latchford, Consultant Clinical Psychologist<br>Dr Dave Green, Consultant Clinical Psychologist |
| *Contact details:* | Clinical Psychology Admin Office,<br>University of Leeds<br>Charles Thackrah Building<br>101 Clarendon Road<br>Leeds, LS2 9LJ<br><br>Tel: 0113 343 2732 (Psychology Admin)<br>Fax: 0113 243 3719<br>e-mail: umnaw@leeds.ac.uk |

Please delete as applicable

| | |
|---|---|
| I have read the participant information sheet. | Y/N |
| I have had the opportunity to ask questions and discuss the scale validation project | Y/N |
| I understand that my responses will remain strictly confidential. | Y/N |
| I understand that I am free to withdraw from the study at any stage without giving a reason. | Y/N |
| I understand that taking part in this study will not have any effect upon my training and that my responses will not be seen by my course or supervisor. | Y/N |
| I agree to take part in this study. | Y/N |

Signature……

Name……..

Date…….

# Demographic Information

10. Initials _____

11. Sex _____

12. Age_____

13. Year of study (i.e. 1st, 2nd, 3rd)_____

14. Course Institution (e.g. University of Leeds)_____

15. Current placement (e.g. Child)_____

16. Sex of current placement supervisor _____

17. Length of time with current placement supervisor (months)_____

18. How long ago was your last supervision session? (weeks) _____

**Please remember that all information will remain confidential and will be stored in a locked cabinet. Your consent form will be detached from all other information so that you are not personally identifiable.**

# Week 1

## Leeds Alliance in Supervision Scale (LASS)

**Date of last supervision session:** _____

**Instructions:**
In order to help us understand how you feel about the alliance you have with your **current** supervisor, please place a mark on the lines to indicate how you feel about your **last** supervision session.

| | | |
|---|---|---|
| This supervision session was not focused | (Approach)<br>I----------I | This supervision session was focused |
| My supervisor and I did not understand each other in this session | (Relationship)<br>I----------I | My supervisor and I understood each other in this session |
| This supervision session was not helpful to me | (Meeting my needs)<br>I----------I | This supervision session was helpful to me |

# THE SUPERVISORY RELATIONSHIP QUESTIONNAIRE (SRQ)

Developed by Marina Palomo (supervised by Helen Beinart)

| **The following statements describe some of the ways a person may feel about his/her supervisor.**<br><br>**To what extent do you agree or disagree with each of the following statements about your relationship with your supervisor? Please tick the column which matches your opinion most closely.** | **Strongly Disagree** | **Disagree** | **Slightly Disagree** | **Neither Agree nor Disagree** | **Slightly Agree** | **Agree** | **Strongly Agree** |
|---|---|---|---|---|---|---|---|
| **SAFE BASE SUBSCALE** | | | | | | | |
| 1. My Supervisor was respectful of my views and ideas | | | | | | | |
| 2. My supervisor and I were equal partners in supervision | | | | | | | |
| 3. My supervisor had a collaborative approach in supervision | | | | | | | |
| 4. I felt safe in my supervision sessions | | | | | | | |
| 5. My supervisor was non-judgemental in supervision | | | | | | | |
| 6. My supervisor treated me with respect | | | | | | | |
| 7. My supervisor was open-minded in supervision | | | | | | | |
| 8. Feedback on my performance from my supervisor felt like criticism | | | | | | | |
| 9.The advice I received from my supervisor was prescriptive rather than collaborative | | | | | | | |
| 10. I felt able to discuss my concerns with my supervisor openly | | | | | | | |
| 11. Supervision felt like an exchange of ideas | | | | | | | |
| 12. My supervisor gave feedback in a way that felt safe | | | | | | | |
| 13. My supervisor treated me like an adult | | | | | | | |
| 14. I was able to be open with my supervisor | | | | | | | |
| 15. I felt if I discussed my feelings openly with my supervisor, I would be negatively evaluated | | | | | | | |
| **STRUCTURE SUBSCALE** | | | | | | | |
| 16. My supervision sessions took place regularly | | | | | | | |
| 17. Supervision sessions were structured | | | | | | | |
| 18. My supervisor made sure that our supervision sessions were kept free from interruptions | | | | | | | |
| 19. Supervision sessions were regularly cut short by my supervisor | | | | | | | |
| 20. Supervision sessions were focused | | | | | | | |
| 21. My supervision sessions were disorganised | | | | | | | |
| 22. My supervision sessions were arranged in advance | | | | | | | |
| 23. My supervisor and I both drew up an agenda for supervision together | | | | | | | |
| **COMMITMENT SUBSCALE** | | | | | | | |
| 24. My supervisor was enthusiastic about supervising me | | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 25. My supervisor appeared interested in supervising me | | | | | | | |
| 26. My supervisor appeared uninterested in me | | | | | | | |
| 27. My supervisor appeared interested in me as a person | | | | | | | |
| 28. My supervisor appeared to like supervising | | | | | | | |
| 29. I felt like a burden to my supervisor | | | | | | | |
| 30. My supervisor was approachable | | | | | | | |
| 31. My supervisor was available to me | | | | | | | |
| 32. My supervisor paid attention to my spoken feelings and anxieties | | | | | | | |
| 33. My supervisor appeared interested in my development as a professional | | | | | | | |
| **REFLECTIVE EDUCATION SUBSCALE** | | | | | | | |
| 34. My supervisor drew from a number of theoretical models | | | | | | | |
| 35.My supervisor drew from a number of theoretical models flexibly | | | | | | | |
| 36. My supervisor gave me the opportunity to learn about a range of models | | | | | | | |
| 37. My supervisor encouraged me to reflect on my practice | | | | | | | |
| 38. My supervisor linked theory and clinical practice well | | | | | | | |
| 39. My supervisor paid close attention to the process of supervision | | | | | | | |
| 40. My supervisor acknowledged the power differential between supervisor and supervisee | | | | | | | |
| 41. My relationship with my supervisor allowed me to learn by experimenting with different therapeutic techniques | | | | | | | |
| 42. My supervisor paid attention to my unspoken feelings and anxieties | | | | | | | |
| 43. My supervisor facilitated interesting and informative discussions in supervision | | | | | | | |
| 44. I learnt a great deal from observing my supervisor | | | | | | | |
| **ROLE MODEL SUBSCALE** | | | | | | | |
| 45. My supervisor was knowledgeable | | | | | | | |
| 46. My supervisor was an experienced clinician | | | | | | | |
| 47. I respected my supervisor's skills | | | | | | | |
| 48. My supervisor was knowledgeable about the organisational system in which they worked | | | | | | | |
| 49. Colleagues appeared to respect my supervisor's views | | | | | | | |
| 50. I respected my supervisor as a professional | | | | | | | |
| 51. My supervisor gave me practical support | | | | | | | |
| 52. I respected my supervisor as a clinician | | | | | | | |
| 53. My supervisor was respectful of clients | | | | | | | |
| 54. I respected my supervisor as a person | | | | | | | |
| 55. My supervisor appeared uninterested in his / her clients | | | | | | | |
| 56. My supervisor treated his / her colleagues with respect | | | | | | | |

| FORMATIVE FEEDBACK SUBSCALE | | | | | | | |
|---|---|---|---|---|---|---|---|
| 57. My supervisor gave me helpful negative feedback on my performance | | | | | | | |
| 58. My supervisor was able to balance negative feedback on my performance with praise | | | | | | | |
| 59. My supervisor gave me positive feedback on my performance | | | | | | | |
| 60. My supervisor's feedback on my performance was constructive | | | | | | | |
| 61. My supervisor paid attention to my level of competence | | | | | | | |
| 62. My supervisor helped me identify my own learning needs | | | | | | | |
| 63. My supervisor did not consider the impact of my previous skills and experience on my learning needs | | | | | | | |
| 64. My supervisor thought about my training needs | | | | | | | |
| 65. My supervisor gave me regular feedback on my performance | | | | | | | |
| 66. As my skills and confidence grew, my supervisor adapted supervision to take this into account | | | | | | | |
| 67. My supervisor tailored supervision to my level of competence | | | | | | | |

**Scoring Key**

Scored 1 (Strongly Disagree) to 7 (Strongly Agree)

***Reverse Scoring***
Scored 7 (Strongly Disagree) to 1 (Strongly Agree)

References:
Palomo, M. (2004). Development and validation of a questionnaire measure of the supervisory relationship. Unpublished DClinPsych Thesis, Oxford University.

Palomo, M., Beinart, H. & Cooper, M. (in press), Development and validation of the Supervisory Relationship Questionnaire (SRQ) in UK trainee clinical psychologists, BJCP.

# Supervisory Satisfaction Questionnaire
# (Ladany, Hill, Corbett, & Nutt 1996)

Please answer all of the questions below.

**Circle Your Answers:**

1. How would you rate the quality of supervision you have received?

| 4 | 3 | 2 | 1 |
|---|---|---|---|
| Excellent | Good | Fair | Poor |

2. Did you get the kind of supervision you wanted?

| 1 | 2 | 3 | 4 |
|---|---|---|---|
| No, definitely not | No, not really | Yes, generally | Yes, definitely |

3. To what extent has this supervision fit your needs?

| 4 | 3 | 2 | 1 |
|---|---|---|---|
| Almost all of my needs have been met | Most of my needs have been met | Only a few of my needs have been met | None of my needs have been met |

4. If a friend were in need of supervision, would you recommend this supervisor to him or her?

| 1 | 2 | 3 | 4 |
|---|---|---|---|
| No, definitely not | No, I don't think so | Yes, I think so | Yes, definitely |

5. How satisfied are you with the amount of supervision you have received?

| 1 | 2 | 3 | 4 |
|---|---|---|---|
| Quite dissatisfied | Indifferent or mildly dissatisfied | Mostly satisfied | Very satisfied |

6. Has the supervision you received helped you to deal more effectively in your role as a counselor or therapist?

| 4 | 3 | 2 | 1 |
|---|---|---|---|
| Yes, definitely | Yes, generally | No, not really | No, definitely not |

7. In an overall, general sense, how satisfied are you with the supervision you have received?

| 4 | 3 | 2 | 1 |
|---|---|---|---|
| Very satisfied | Mostly satisfied | Indifferent or mildly dissatisfied | Quite dissatisfied |

8. If you were to seek supervision again, would you come back to this supervisor?

| 1 | 2 | 3 | 4 |
|---|---|---|---|
| No, definitely not | No, I don't think so | Yes, I think so | Yes definitely |

# Role Conflict Role Ambiguity Inventory
(Olk & Friedlander, 1992)

| | Not at all 1 | 2 | 3 | 4 | Very much 5 |
|---|---|---|---|---|---|
| 1. I was not certain about what material to present to my supervisor | | | | | |
| 2. I have felt that my supervisor was incompetent or less competent than I. I often felt that I was supervising him/her | | | | | |
| 3. I have wanted to challenge the appropriateness of my supervisor's recommendations for using a technique with one of my clients, but I have thought it better to keep my opinions to myself | | | | | |
| 4. I wasn't sure how best to use supervision as I became more experienced, although I was aware that I was expected to behave more independently | | | | | |
| 5. I have believed that my supervisor's behaviour in one or more situations was unethical or illegal and I was undecided about whether to confront him/her | | | | | |
| 6. My orientation to therapy was different from that of my supervisor. She or he wanted me to work with clients using her or his framework, and I felt that I should be allowed to use my own approach | | | | | |
| 7. I have wanted to intervene with one of my clients in a particular way and my supervisor has wanted me to approach the client in a very different way. I am expected both to judge what is appropriate for myself and also to do what I am told | | | | | |
| 8. My supervisor expected me to come prepared for supervision but I had no idea what or how to prepare | | | | | |
| 9. I wasn't sure how autonomous I should be in my work with clients | | | | | |
| 10. My supervisor told me to do something I perceived to be illegal or unethical and I was expected to comply | | | | | |
| 11. My supervisor's criteria for evaluating my work were not specific | | | | | |
| 12. I was not sure that I had done what the supervisor expected me to do in a session with a client | | | | | |
| 13. The criteria for evaluating my performance in supervision were not clear | | | | | |
| 14. I got mixed signals from my supervisor and I was unsure of which signals to attend to | | | | | |
| 15. When using a new technique, I was unclear about the specific steps involved. As a result, I wasn't sure how my supervisor would evaluate my work | | | | | |
| 16. I disagreed with my supervisor about how to introduce a specific issue to a client, but I also wanted to do what the supervisor recommended | | | | | |
| 17. Part of me wanted to rely on my own instincts with clients, but I always knew that my supervisor would have the last word | | | | | |
| 18. The feedback I got from my supervisor did not help me to know what was expected of me in my day to day work with clients | | | | | |
| 19. I was not comfortable using a technique recommended by my supervisor; however, I felt that I should do what my supervisor recommended | | | | | |
| 20. Everything was new and I wasn't sure what would be expected of me | | | | | |
| 21. I was not sure if I should discuss my professional weaknesses in supervision because I was not sure how I would be evaluated | | | | | |
| 22. I disagreed with my supervisor about implementing a specific technique, but I also wanted to do what the supervisor thought best | | | | | |
| 23. My supervisor gave me no feedback and I felt lost | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| | Not at all 1 | 2 | 3 | 4 | Very much 5 |
| 24. My supervisor told me what to do with a client, but didn't give me very specific ideas about how to do it | | | | | |
| 25. My supervisor wanted me to pursue an assessment technique that I considered inappropriate for a particular client | | | | | |
| 26. There were no clear guidelines for my behaviour in supervision | | | | | |
| 27. The supervisor gave no constructive or negative feedback and as a result, I did not know how to address my weaknesses | | | | | |
| 28. I didn't know how I was doing as a therapist and, as a result, I didn't know how my supervisor would evaluate me | | | | | |
| 29. I was unsure of what to expect from my supervisor | | | | | |

# Week 2

## Leeds Alliance in Supervision Scale (LASS)

**Date of last supervision session:** _____

**Instructions:**
In order to help us understand how you feel about the alliance you have with your **current** supervisor, please place a mark on the lines to indicate how you feel about your **last** supervision session.

| | | |
|---|---|---|
| This supervision session was not focused | (Approach)<br>I----------I | This supervision session was focused |
| My supervisor and I did not understand each other in this session | (Relationship)<br>I----------I | My supervisor and I understood each other in this session |
| This supervision session was not helpful to me | (Meeting my needs)<br>I----------I | This supervision session was helpful to me |

# Week 3

## Leeds Alliance in Supervision Scale (LASS)

**Date of last supervision session:** _____

**Instructions:**
In order to help us understand how you feel about the alliance you have with your **current** supervisor, please place a mark on the lines to indicate how you feel about your **last** supervision session.

| | | |
|---|---|---|
| This supervision session was not focused | (Approach)<br>I----------I | This supervision session was focused |
| My supervisor and I did not understand each other in this session | (Relationship)<br>I----------I | My supervisor and I understood each other in this session |
| This supervision session was not helpful to me | (Meeting my needs)<br>I----------I | This supervision session was helpful to me |