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A review and critical appraisal of measures of therapist–patient interactions in mental health settings

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The research reported in this issue of the journal was commissioned by the National Coordinating Centre for Research Methodology (NCCRM), and was formally transferred to the HTA Programme in April 2007 under the newly established NIHR Methodology Panel. The HTA Programme project number is 06/90/05. The contractual start date was in April 2002. The draft report began editorial review in February 2007 and was accepted for publication in October 2007. The commissioning brief was devised by the NCCRM who specified the research question and study design. The authors have been wholly responsible for all data collection, analysis and interpretation, and for writing up their work. The HTA editors and publisher have tried to ensure the accuracy of the authors' report and would like to thank the referees for their constructive comments on the draft document. However, they do not accept liability for damages or losses arising from material published in this report.

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Abstract

A review and critical appraisal of measures of therapist–patient interactions in mental health settings

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Objectives: To assemble and to appraise critically the current literature on tests and measures of therapist–patient interactions in order to make recommendations for practice, training and research, and to establish benchmarks for standardisation, acceptability and routine use of such measures.
Data sources: Major electronic databases (including PsycINFO) were searched from inception to 2002.
Review methods: A comprehensive conceptual map of the subject area of therapist–patient interactions was developed through data extraction from, and analysis of, studies selected from the literature searches. The results of these searches were assessed and appraised to produce a set of possible therapist–patient measures. These measures were then evaluated.
Results: The contextual map included the various concepts and domains that had been used in the context of the literature on therapist–patient interactions, and was used to guide the successive stages of the review. Three developmental processes were identified as necessary for the provision of an effective therapeutic relationship: 'establishing a relationship', 'developing a relationship' and 'maintaining a relationship'. Eighty-three therapist–patient measures having basic information on reliability and validity were identified for critical appraisal. The areas of the conceptual map that received most coverage (i.e. over 50% measures associated with them) were framework, therapist and patient engagement, roles, therapeutic techniques and threats to the relationship. These areas relate to the three key developmental processes outlined above. Of the 83 measures matching the content domain, 43 met the minimum standard. A total of 30 measures displayed adequate responsiveness or precision. None of the 43 measures that met the minimum standard was fully addressed in terms of acceptability and feasibility evidence. The majority of these measures had three or fewer components described. Therefore, out of a total of 83 measures matching the content domain, no measure could be said to have met an industry standard.
Conclusions: The findings indicate that the therapist–patient interaction can be measured using a wide range of instruments of varying value. However, due care should be taken in ensuring that the measure is suitable for the context in which it is to be used. Following on from this work, it is suggested that specific research networks for the development of therapist–patient measures should be established, that research activity should prioritise investment in increasing the evidence base of existing measures rather than attempting to develop new ones, and that research activity should focus on improving these existing measures in terms of acceptability and feasibility issues.

Contents

List of abbreviations

ACL	Adjective Check List
ADHD	attention deficit hyperactivity disorder
ANOVA	analysis of variance
BDI	Beck Depression Inventory
BPD	borderline personality disorder
CBT	cognitive behavioural therapy
CFA	confirmatory factor analysis
CST	client speaking turns
df	degrees of freedom
FAQ	frequently asked question
GAS	Goal Attainment Scaling
ICC	intraclass correlation coefficient
IIP	Inventory of Interpersonal Problems
IPR	interpersonal process recall
ISQ	Interpersonal Schema Questionnaire
LOF	Level of Facilitation
MANOVA	multivariate analysis of variance
MSA	multidimensional scale analysis
NA	not applicable
NA	nursing assistant
ns	not significant
PCA	principal components analysis
PCM	Paragraph Completion Method
PCS	Psychotherapy Check Sheet
PTSD	post-traumatic stress disorder
RE	relationship episode
RIA	racial identity attitude
RN	registered nurse
SCA	simultaneous components analysis
SD	standard deviation
SE	standard error
STDP	short-term dynamic psychotherapy
TSF	Twelve-Step Facilitation
TSR	Therapy Session Report

All abbreviations that have been used in this report are listed here unless the abbreviation is well known (e.g. NHS), or it has been used only once, or it is a non-standard abbreviation used only in figures/tables/appendices in which case the abbreviation is defined in the figure legend or at the end of the table.

Executive summary

Background

There is currently considerable practice and research activity arising from the drive to establish a secure evidence base for interventions and treatments in mental healthcare. However, this line of research has followed a main effects model; that is, one that attempts to determine main effects in mental healthcare delivery that can be labelled as specific factors influencing outcome. While such a line of research has covered important components in the delivery of effective mental healthcare, these components do not explain the activity between therapist and patient, as reflected by common factors. There has been increasing evidence of the important role played by common factors, which operate across different kinds of therapies (psychological and drug). It is therefore important to focus on the question of how to secure reliable and valid measurement of core processes. In the context of clinical governance and the increasingly central role placed on user perspectives, the quality of the interactions between therapist and patient becomes paramount. With regard to the field of therapist–patient interactions, it is essential that measures are subject to quality-control procedures.

Objectives

The purpose of this report has been (1) to assemble the current literature on tests and measures of therapist–patient interactions; (2) to subject this literature to critical appraisal with the aim of making recommendations for practice, training and research; and (3) to establish benchmarks for standardisation, acceptability and routine use of such measures.

Methods I

Conceptual map

Literature scoping

The initial aim of the project was to scope out the subject area of therapist–patient interactions. The purpose of the scoping review was to develop a comprehensive conceptual map of the review area.

Literature searches

As a first step to defining the kinds of questions/areas to be addressed by the review, a pinpoint exercise was conducted at the first steering group meeting. The participants came from a variety of professional and academic backgrounds (clinical psychology, counselling, liaison psychiatry, psychiatric nursing, primary care). The final search strategy was run on the PsycINFO database (1886–2002). The development of the search strategy was a highly iterative process, involving frequent and intensive collaboration with the library team.

Selection and rating of studies

All references were incorporated into a database and independently assessed by two project members acting as raters. Abstracts were included on the basis of the following criteria: therapist (however defined); patient (however defined); all therapist–patient interactions in mental health irrespective of setting, clinical background, training and orientation; all populations; all psychological therapies; review or conceptual/theoretical papers; no time span limit. All abstracts which met the above inclusion criteria were then rated on a five-point scale in order of content relevance to the project (5 = most relevant to 1 = least relevant).

Data extraction

All articles rated 4 and 5 were data extracted by project staff hired specifically for this level of work, using a data summary sheet. The purpose of the summary sheet was to summarise comprehensively information on areas pertinent to the scoping review (e.g. therapist–patient interaction measured, theoretical orientation, measures used). The data summary sheets from the '5'-rated articles were then analysed to produce a conceptual map of the subject area.

Data analysis

Three people independently read and listed key themes and concepts from the summary sheets. The three lists were then combined and reviewed. Similar themes were combined and grouped. During this process the summary sheets were revisited to check that the list of themes was grounded in the articles. Using qualitative

methodology, items were then grouped and reduced as overlapping terms and concepts were identified.

Review of therapist–patient measures

Literature searches

The explicit aim was to include all possible relevant literature relating to both studies of therapist–patient interactions and tests/measures of interactions. This review involved the search of a diverse range of electronic and non-electronic sources to maximise the likelihood of capturing all relevant material. As there is no single electronic database that is comprehensive enough in either subject or publication format coverage to retrieve all articles relevant to the review question, a range of electronic databases was searched. All electronic searches covered the years 1886–2002. The general strategy was to combine the search used for the scoping exercise with a search strategy containing specific descriptors such as 'assessment instruments' and 'tests and measures'.

Selection and rating of studies

Two project staff sifted through these references and extracted a list of candidate measures using specified inclusion and exclusion criteria. A series of desirable attributes for psychometric instruments was selected from a recent systematic review commissioned by the UK HTA Programme. These were classified under the six broad headings of reliability, validity, responsiveness, precision, acceptability and feasibility.

Data extraction

Summaries of each of the criteria were entered into an electronic database and key references addressing each attribute were cross-referenced using the relational functions of the database. A measure summary sheet was designed to address each of the six psychometric properties. All information pertaining to these criteria was retrieved from the database and entered on to the summary sheet.

Quality appraisal

Two research staff then applied coding instructions for quality assessment to each of the six criteria. This procedure required consensus between the two staff.

Results

Conceptual map

The map included the various concepts and domains that had been used in the context of the literature on therapist–patient interactions, and was used to guide the successive stages of the review.

Three developmental processes were identified as necessary for the provision of an effective therapeutic relationship: 'establishing a relationship', 'developing a relationship' and 'maintaining a relationship'.

Review of therapist–patient measures

Candidate measures

Eighty-three measures were identified having basic information on reliability and validity for critical appraisal.

Content coverage

The areas of the conceptual map that received most coverage (i.e. over 50% measures associated with them) were framework, therapist and patient engagement, roles, therapeutic techniques and threats to the relationship. These areas relate to the three key developmental processes outlined above.

Eighty-six per cent of the measures were developed in the USA. The remaining measures were developed in the UK, Canada, Australia and Germany. The majority of the measures were developed within pan-theoretical or psychodynamic/psychoanalytic perspectives, were observer rated and related to adult population groups.

Psychometric status

Of the 83 measures matching the content domain, 43 met the minimum standard. A total of 30 measures displayed adequate responsiveness or precision. None of the 43 measures that met the minimum standard was fully addressed in terms of acceptability and feasibility evidence. The majority of these measures had three or fewer components described. Therefore, out of a total of 83 measures matching the content domain, no measure could be said to have met an industry standard.

Conclusions

The findings from the report indicated that the therapist–patient interaction can be measured using a wide range of instruments of varying value. Due care should be taken in ensuring that the measure is suitable for the context in which it is to be used.

Recommendations for further research

The following recommendations for further research are listed below in priority order.

- Specific research networks for the development of therapist–patient measures should be established.
- It is recommended that research activity should prioritise investment in increasing the evidence base of existing measures rather than attempting to develop new ones. Where research effort and time is invested in new measures this should be done strategically in a fashion that will service national policy needs.
- It is recommended that research activity should focus on improving existing measures in terms of acceptability and feasibility issues.

Chapter 1

Background to the project

This chapter sets out the background and aims for a review and critical analysis of studies assessing the nature and quality of therapist–patient interactions in the treatment of patients with mental health problems.

Main effects model

There is currently considerable practice and research activity arising from the drive to establish a secure evidence base for interventions and treatments in mental healthcare. This activity incorporates primary, secondary and tertiary services and is driven by, among other things, the desire to plan and deliver high-quality but cost-effective services to patients as set out in the National Service Framework for Mental Health.[1]

Research initiatives

A range of initiatives has fed into this activity. These include the following: ongoing Cochrane Reviews of mental health interventions,[2] a comprehensive and critical review of the psychotherapies[3] and clinical practice guidelines for, among others, treatment choice in psychological therapies and counselling.[4] However, almost without exception, the conceptual models upon which reviews are based have followed a main effects model. A main effects model is one that attempts to determine main effects in mental healthcare delivery that can be labelled as specific factors influencing outcome. Hence, the focus has been on, for example, issues of psychiatric diagnosis with the aim of establishing which mental health intervention works best for which disorder and attributing the effect or outcome to specific components of the intervention.

Limitations of the main effects model

While such a line of research has covered important components in the delivery of effective mental healthcare, these components do not explain the activity between therapist and patient, although the important role of this relationship has been acknowledged.[4] The focus on diagnoses and treatments comes in part from the respective investments in developing specific taxonomies for classifying: (1) diagnoses via the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) or the Tenth Revision of the International Classification of Diseases and Related Health Problems (ICD-10) classifications, and (2) treatments via attempts to define a set of empirically supported treatments;[5] that is, treatments supported by a robust research evidence base. This paradigm has been wholly consistent with the evidence-based practice movement. It is also consistent with the search for specific effects.

Contextual model in search of common factors

Informative though this strategy is, it does not take into account major aspects of activity occurring between patient and the mental health professional as reflected by common factors. The interest in common factors has reflected the view that differences in outcomes (in psychological treatments as well as drug treatments) can be accounted for by factors that cut across differing therapies and other interventions, rather than necessarily factors that are specific or unique to individual interventions or treatments. Estimates as to the extent of the common factors effect differ, but they vary from 30% for common factors versus 15% for specific factors[6] to 70% for general factors versus 8% for specific factors.[7] (These percentages refer to the explained variance in outcomes.)

Evidence for common factors

There has been increasing evidence of the important role played by common factors, which operate across different kinds of therapies (psychological and drug). Rosenzweig first proposed the concept of common factors in 1937.[8] He suggested that 'common factors' existed across differing forms of psychotherapy and that the most salient ones would include the relationship and that they all involved a system of explanation (i.e. by the therapist to the patient). Importantly, Rosenzweig proposed that because common factors were so omnipresent, any comparative treatment study would be expected to show non-significant differences in outcomes. The commonality between and across interventions has

been espoused,[9] and there has been a consistent message from intervention studies suggesting that there is broad equivalence of outcomes,[10] although there are clear exceptions within specific disorders.[3] For example, cognitive therapies, strongly driven by technique (specific factors), are recommended for specific phobias. In other forms of treatment, the context in which the treatment is offered or delivered, particularly the relationship between patient and therapist, remains an important factor in the successful delivery of treatment. For example, drug placebo conditions have been found not to be significantly less effective than active psychological treatments, and patients in such conditions have rated similar levels of therapeutic alliance to those patients receiving active psychological treatments.[11]

Common factors associated with therapist–patient interaction

Factors that have been associated with the therapist–patient interaction include the therapist–patient 'relationship' and 'alliance'[12] concepts, with a key component being the interdependence of one with the other. For example, research on the concepts of 'attachment'[13] and of the 'repair of patient–therapist ruptures',[14] engagement and responsiveness[15] all contribute to this knowledge base. Other factors include the shared attitudes and beliefs of patients, holding similar views of the world, and so on.[7] However, these concepts may not only play an important role in determining patient outcomes, but also show differential impacts across service settings or explain the influence of other variables on patient outcomes. That is, they can act as both moderators and mediators in clinical settings. A moderated relationship occurs when a relationship is found to hold for some categories of a sample but not others. For example, the importance of the therapist–patient interaction may be different within primary care settings (e.g. doctor–patient interactions where the length of interactions may be relatively short) as opposed to psychotherapy settings (e.g. therapist–patient alliance) and settings in which mental health professionals, including nurses, work with patients experiencing severe and enduring illness (e.g. engagement with service). A mediator may be thought of as an intervening variable; that is, the therapist–patient relationship provides an explanation of the impact of another variable on outcome. For example, the therapist–client alliance has been shown to mediate the effect of interpersonal style on outcome; that is, the relationship between interpersonal style was attenuated by the intervening variable of alliance.[16]

The measurement agenda

The Department of Health has recently instigated policy initiatives to steer services towards recognising the need to standardise outcome measurement procedures. There has been a specific call for services to "Incorporate measures of outcome into your psychological therapies service as a matter of routine".[17] In addition, the 'Outcomes measures implementation: best practice guidance'[18] has built on this call and subsequently identified four levels of outcome activity, incorporating measurement, data monitoring, service and treatment management, and benchmarking.

This report, focusing as it does on the process between therapist and patient, has the potential to complement and counterbalance the outcome agenda by focusing on important factors that may be salient in the broader context of outcomes. Indeed, they may be predictive of outcomes or, as stated earlier, moderate them. However, comparatively little effort has been expended on organising 'process' measures. The review of recommended measures by Hill and Corbett[19] has been the most recent and notable attempt to provide a consensus for researchers on which process measures to use. The review was conducted in an effort to promote cohesiveness and unity in process research. However, the review also noted that 38% and 49% of the process measures used in studies in *Journal of Counseling Psychology* and *Journal of Consulting and Clinical Psychology*, respectively, were study-specific measures and not used subsequently. This tendency had been noted 20 years previously by Strupp[20] and Kiesler.[21]

Measuring therapist–patient interactions

One striking issue has always remained, that of how to measure common factor components. For example, there was considerable effort in measuring common factors such as empathy during the 1970s (see Hill and Corbett[19] for overview), but the resulting yield in terms of enhancing the quality of care has been small. More recently, there has been a concerted effort in developing measures of, for example, the therapeutic alliance.[22,23]

This issue has been ever present in research on the psychological therapies: how to secure reliable and valid measurement of core processes. In the context of clinical governance and the increasingly central role placed on 'user' perspectives, the

quality of the interactions between therapist and patient becomes paramount. With regard to the field of therapist–patient interactions, it is essential that measures are subject to quality-control procedures. When aggregating results across studies it is necessary not only that the same measures are used, but also that these measures have been proven to meet established, acceptable criteria. The importance of client–practitioner interaction research lies in its ability to determine and delineate the change mechanisms in therapy due to the therapeutic relationship. Using measures that do not meet criteria has implications for hypothesis testing in this field. The use of psychometrically sound measures will ensure that researchers and practitioners will be able to determine reliably what leads to outcome and will enable new models of therapy to be successfully developed.

The importance of a common factors approach therefore lies partly in its not being specific to any single school of intervention and partly in the fact that progressing a common factors approach would therefore span all theoretical models and have wide applicability in healthcare settings. Hence, in this review, the term 'therapist' is viewed as including any mental health professional (e.g. doctors, psychiatrists, nurses, clinical psychologists and counsellors) and 'patient' as any user of a mental health service.

Overall aims of project

The purpose of this report is to assemble the current literature on tests and measures of therapist–patient interactions and subject this literature to critical appraisal with the aim of making recommendations for practice, training and research. The authors recommend minimum standards for acceptability for measuring therapist–patient interactions, and the current tests are synthesised into a database with the aim of making this available via a website to other researchers and practitioners.

Chapter 2

The conceptual map

Scoping review

The initial aim of the project was to scope out the subject area of 'therapist–patient interactions'. The purpose of the scoping review was to develop a comprehensive conceptual map of the review area. The map would include the various concepts and domains that had been used in the context of the literature on therapist–patient interactions (e.g. attachment and alliance), and would be used to guide the successive stages of the review.

Development of a search strategy

Scoping searches typically include searching for existing reviews relevant to the review's objectives. Therefore, any electronic search strategies needed to be carefully tailored to the research questions. As a first step towards defining the kinds of questions/areas to be addressed by the review, a pinpoint exercise was conducted at the first steering group meeting. The participants came from a variety of professional and academic backgrounds (clinical psychology, counselling, liaison psychiatry, psychiatric nursing, primary care). Participants (n = 8; MB, GH, SG, CA, DR, PB, JCa, KA) were instructed to write down words pertaining to therapist–client interaction on Post-it notes. A list of 36 key terms was generated and these are presented alphabetically in *Box 1*.

To assist in the design of an effective electronic search strategy, information experts from the University of Leeds Library (MG and SM) were employed. The authors met the librarians responsible for designing the search strategy to discuss the broad aims and content area of the scoping review. It was decided, in the first instance, to design a search strategy to be used on the PsycINFO database, as its scope seemed the most relevant to the proposed content area of the review. The development of the search strategy was a highly iterative process, involving frequent and intensive collaboration with the library team. Each draft of the search strategy was tested on the PsycINFO database to gauge its sensitivity (recall) and specificity (precision). Sensitivity is a measure of the comprehensiveness of a search strategy, that is, its ability to identify all relevant articles on the topic under review. Specificity is a measure of the ability of the search to exclude irrelevant articles. Searches with high sensitivity tend to have low specificity. As the purpose of the scoping review was to be as inclusive as possible, it was decided that the strategy should be oversensitive. The result was a large number of 'false drops' (irrelevant articles). However all references went through a selection process, as described below. The final search strategy, which was run on PsycINFO database from 1886 to 2002, is presented in Appendix 1.

Selection and rating of studies

A total of 5644 hits was returned from the PsycINFO database. All references were transported into an Endnote database and independently sifted by two project members

BOX 1 *Keywords*

Accept*; Adherence (medical model); Agreement; Alliance; Attachment
Boundaries
Communication; Compliance; Concordance; Contract; Core skills; Counter-transference
Dialogue; Disagreement
Engagement/non-engagement; Expectation of outcome
Friendship
Getting on (e.g. with healthcare practitioner)
Interaction; Involvement
Keeping in touch with services
Length; Like*
Partnership; Patient-centred interviewing; Patient centredness; Power
Relationship; Rupture (and repair)
Sharing power
Therapeutic bond; Therapeutic*; Transference; Trust; Turning up for treatment
Working relationship

acting as raters (JCa and KA). Sifting refers to the process by which inclusion criteria were applied to each abstract. Abstracts were included on the basis of the following criteria:

- therapist (however defined)
- patient (however defined)
- all therapist–patient interactions in mental health, irrespective of setting, clinical background, training and orientation
- all populations
- all psychological therapies
- review or conceptual/theoretical papers
- no timespan limit.

The above inclusion criteria were specified to ensure that the scoping review would contain as wide a range of articles as possible provided they had a bearing on the subject matter.

Abstracts were allocated to three categories of 'in', 'out' or 'possible'. All abstracts were categorised by JCa and KA. Any discrepancies between the two project members concerning the status of an abstract were resolved by consensus agreement/discussion. This left 150 articles that were rated as 'in'. All abstracts that met the above inclusion criteria according to the individual/joint judgement of the two project team members were then rated on a five-point scale in order of content relevance to the project (5 = most relevant to 1 = least relevant). Hard copies of articles were ordered beginning with those rated as 5. Articles rated 4 and 3 were also ordered.

Theoretical saturation

Scoping searches were conducted on the MEDLINE and EMBASE databases. However, it was decided that a point of theoretical saturation had been reached when no new domains of patient interaction were being identified. Theoretical saturation was a function of the scope of the review and the inclusion criteria described above, in that studies had not been restricted by therapy type or clinical background.

Data extraction

All articles rated 4 (n = 67) and 5 (n = 45) were data extracted by a further two project staff hired specifically for this level of work (KP and KB). The data summary sheet is presented in Appendix 2. The purpose of the summary sheet was to summarise comprehensively information on areas pertinent to the scoping review (e.g. therapist–patient interaction measured, theoretical orientation, measures used). The data summary sheets from the '5'-rated articles were then analysed by GH (see below) to produce a conceptual map of the subject area.

Data analysis

Key terms and concepts were identified from the summary sheets. Three people (GH, KP, KB) independently read and listed key themes and concepts from the summary sheets. The three lists were then combined and reviewed. Similar themes were combined and grouped. During this process the summary sheets were revisited to check that the list of themes was grounded in the articles. Using qualitative methodology, items were then grouped and reduced as overlapping terms and concepts were identified.

Two methods of validation were used. First, the '4'-rated articles were subject to the same procedure as above with the aim of identifying any new themes and modifying existing ones. This continued until no new themes were being identified. Secondly, the map containing the grouped themes was scrutinised by the whole research team for comprehensiveness, face validity and usefulness. Each theme was then considered in relation to the remaining themes. Such grouping led to the generation of a number of models, which again were discussed with the whole research team, and the model shown in *Figure 1* was agreed. Themes within the stages of the map or model are detailed in the following sections. In addition, two members of the team (PB, DR) examined the map with the associated references to ensure the adequacy of the audit trail.

Introduction to the conceptual map

The therapist, the patient and the relationship they establish all contribute to the experience and effects of treatment within mental health services. For example, even in trials where enormous effort is made to control the effects of individual therapists, an average of over 6% of the outcome variance is due to therapists.[24] Similarly, the effects of personal characteristics of patients on treatment outcome remain over and above diagnostic symptoms.[25] Finally, the quality of the therapist–patient relationship is not just a by-product of therapeutic success, but it is the most consistently reported predictor of successful outcome, with overall effect sizes of between 0.21 and 0.25.[26] Indeed, these authors present a summary of the literature on predictors of outcome in psychotherapy, showing that 15% of outcome is due to expectancy effects, 15% due to

techniques, 30% due to 'common factors' which primarily involve the therapeutic relationship, and 40% to extratherapeutic change.[26]

So, what do we understand about the therapeutic relationship and what are the active ingredients that promote patient change? In trying to answer these questions the authors have drawn together the literature to identify the elements of the relationship that impact on the quality of the therapist–patient relationship. In some cases there is evidence from empirical studies that these aspects of the relationship also impact on treatment outcome. Although the primary goal in this review has not been to consider treatment outcome, inevitably many of the articles that were reviewed have considered this. Therefore, the authors have indicated where there is evidence that treatment or therapy outcomes improve as a consequence of establishing certain aspects of the therapeutic relationships.

Overview of the map

In the conceptual map (*Figure 1*) three developmental processes were identified as necessary for the provision of an effective therapeutic relationship. These are summarised in 'establishing a relationship', 'developing a relationship' and 'maintaining a relationship'. Key processes involved in establishing what might be called 'mini-outcomes' or 'objectives' for each phase are listed. It is assumed that although these stages develop across therapy, there will also be a cycling through these stages within a therapeutic meeting, or over a number of weeks or months.

For example, a therapeutic relationship may be well developed when there is a break in treatment, resulting in patient-reported dissatisfaction. The therapist will work to repair this rupture in the relationship and may also return to the use of engagement skills.

Therapist, *patient* and *contextual* factors determine the nature of the roles and frameworks within which the therapeutic interactions take place. These in turn impact on the processes and outcomes of each phase of the relationship.

The description of the map begins from the right of *Figure 1* going through the processes and objectives of each phase of the relationship. Next, the patient, therapist and contextual factors that moderate the frameworks of, and roles taken, in the relationship are described. *Figure 1* gives examples of the components of the levels of the conceptual map, along with a reference to the tables containing complete listings.

Establishing the relationship

There is clear evidence that the early development of a good relationship between therapist and patient predicts better outcome and remaining in therapy.[27] The processes and objectives of this phase of therapy are taken in turn (*Table 1*).

Engagement processes

Therapist behaviours and attitudes that encourage patient engagement are discussed below. In

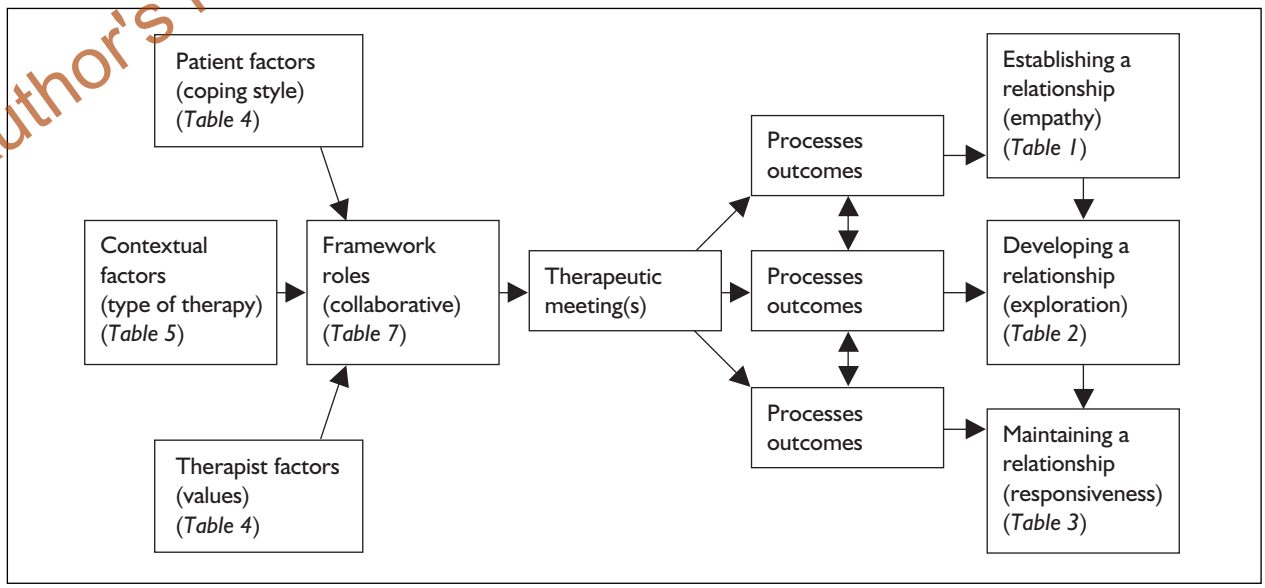

FIGURE 1 *Conceptual map*

TABLE 1 *Establishing the relationship*

Engagement processes	Engagement objectives
Empathy, warmth and genuineness	Expectancies
Negotiation of goals	Intentions
Collaborative framework	Motivation
Support	Hope
Guidance	
Affirmation	

general, it is assumed that the more therapists engage appropriately in these activities, the better will be their relationships with patients.

Empathy, warmth and genuineness

These three elements of Rogers' therapeutic conditions are linked to outcome, particularly empathy.[28] Empathy is the ability of the therapist to enter and understand, both affectively and cognitively, the patient's world. Three types of empathy have been identified: rapport, communicative attunement and person empathy.[29] Clients' experience of empathy (received empathy) is important in the development of the relationship.[30] Therapist warmth[31] and genuineness or respect[32] are also associated with the development of a good therapeutic relationship.

Negotiation of goals

Engagement also involves the therapist discussing and agreeing with the patient what are the aims of therapy. Agreement between patient and therapist on what are the problems the patient is bringing to therapy is not related to engagement, but agreement on goals and tasks is. Goal consensus is one of the relationship objectives (as a part of alliance). There is also evidence that it is important to reach consensus early in therapy. For example, early session information gathering and later session sharing and negotiation of problem formulation and treatment plans improve engagement and return for further sessions of therapy.[33]

Collaborative framework

More generally than just negotiation of goals, mutual involvement in the helping relationship is associated with engagement. Therapist behaviours that are associated with involvement or a collaborative framework include talking rather than remaining silent, encouraging patient experiencing so that sessions are reported as being 'deep' and avoiding conflict within the sessions.[34]

Support and guidance

Some aspects of support are described as being important within cognitive and behavioural therapies, such as tolerance[35] and guidance.[36] Friedlander and Tuason[31] found that directiveness predicted increases in couples' positive behaviour, although only with couples from lower socio-economic backgrounds. Russell and Shirk[37] found that children were less hostile with a directive therapist. Other techniques that improve patient engagement include providing early clarifications in the here and now[38] and using patient preparatory techniques.[39]

Affirmation

There is mixed evidence for the use of praise in developing the therapist–patient relationship, although 'mutual affirmation' is seen as important.[40] Ogrodniczuk and Piper[41] discuss that when working with patients with personality disorders therapists must balance transference work with supportive work, such as reassurance and praise. Although most therapies discuss the importance of praise, Sweet[42] and Wilson[43] describe the mixed evidence for the role of praise in behaviour therapy.

Engagement objectives

Patient engagement in therapy is the primary target at this stage and can be divided into the following objectives.

Expectancies

In the early stages in therapy Frank and Frank identified the importance of building patients' positive expectations of therapy.[9]

Intentions and motivation

Intentions and motivation for change also need to be sufficiently present for engagement in therapy to occur.[30] Therapists' behaviours described earlier are in part designed to develop patients' expectations. Therapists rate patients as more attractive if they are seen to be motivated to change and committed to work with the therapist in working out their problems. Such patients are more likely to become engaged.

Hope

Therapists' expressed hope for the usefulness of therapy is important in engaging patients in therapy.[37] This links to patient expectancies,[44,45] or to the therapists' power base, which in turn increases therapists' ability to influence patients.[46]

Nathan[47] examines hope in relation to difficult patients, finding that therapists often lack hope with such patients, which leads to impoverished therapeutic relationships. The importance of openly addressing hope or the lack of it with patients is discussed by Bordin,[48] for example, improvements in the patient–therapist relationship are seen with the early building of a sense of hope with patients who suffer from post-traumatic stress.[49]

Developing the relationship

This section looks at therapists' techniques that are helpful in progressing therapy and developing the therapist–patient relationship, and the objectives for this phase of therapy (*Table 2*). In addition, during this phase therapists use more 'self-reflective' activities to deepen their relationship with their patients. These include an awareness of transference and the use of self-disclosure.

Exploration and reflection

Exploration and reflection of aspects of the therapist–patient relationship are emphasised by psychodynamic, interpersonal and humanistic therapies. Increased use of exploration is associated with more positive relationship ratings.[30,41,50–62]

Secure base

This concept is taken from attachment theory and describes the level of safety a patient may experience in relationships. The aim in the therapeutic relationship is to develop a base from which patients feel secure and able to explore their problems productively. Dozier and Tyrrell[55] describe this process as beginning with the patient entering therapy with expectations of the therapist based on their previous attachment figures, which are then worked on in therapy to explore other attachment models. Direct evidence for this process is limited, but there is evidence that secure clients are more cooperative in therapy and that security in patients' attachment to their therapist is positively associated with a strong alliance.[55]

TABLE 2 *Developing the relationship*

Processes	Objectives
Exploration	Openness
Reflection	Trust
Secure base	Commitment
Feedback	
Relational interpretations	
Non-verbal communications	

Feedback

Feedback is usefully conceptualised as an influence process where the therapist changes the patient's behaviour through the delivery of discrepant, change-promoting messages or positive reinforcement of aspects of the patient's behaviour or self-beliefs. The feedback message can be descriptive or inferential: research evidence indicates that descriptive feedback is more useful; positive feedback is generally more acceptable (although negative feedback can be useful if preceded by positive feedback); and if feedback is collaborative it is less likely to arouse resistance in the patient.[37] Positive feedback also helps to establish and strengthen the relationship.[63]

Relational interpretations

Relational interpretations are a therapy technique where the therapist makes an intervention that addresses interpersonal links, connections or themes within the patients' stories. Several studies have linked the use of relational interpretations to outcome, and a few have looked at interpretations and the quality of the alliance. Crits-Christoph and Connolly,[64] summarising this evidence, conclude that high levels of transference interpretations should be avoided and the primary focus of interpersonal interpretations should be on the central interpersonal theme of the patient.

Non-verbal communication

Non-verbal behaviour is important in therapy; it provides information about patients' emotional state and can be used as a tool for improving the therapist–patient relationship. For example, laughter and humour[37] are described as indicating a positive change in patients' self-concept and as an expression of a positive relationship. The experience, interpretation and use of silence are also the focus of discussion in a number of papers.[52]

Transference

Many of the papers mention the importance of therapists' recognition of transferences within the therapeutic relationship. The concept of transference is complex and has developed in meaning.[65,66] However, transference understandings are essential to the therapies that propose the therapeutic relationship as the vehicle for the process of change, as patients' conflictual

ways of relating to others are identified, understood and worked on through the therapist–patient relationship.[33] However, the evidence for the value of transference interpretations is mixed.

Self-disclosure

Self-disclosure (the therapist revealing something personal about him or herself) was traditionally not recommended by psychoanalytic therapists. Other theoretical orientations have seen self-disclosure as a useful part of the therapeutic relationship. Four types of disclosure have been described: facts, insights, strategies and feelings. Patients are often more positive about therapist self-disclosure than therapists, but the positive effects on either the relationship or therapy outcome have yet to be demonstrated. Because of the lack of clear understanding of the impacts on patients it is generally recommended that therapists should only infrequently disclose, and that if they do so this should be in a positive way to validate reality or normalise behaviour. Careful attention should be paid to the impact of disclosure on the relationship.[67]

Relationship development objectives

Once patients are hopeful that therapy may help and are motivated to change, it is important that they are able to turn to the tasks of therapy. To do this they need to have trust in the therapist, openness to the process of therapy[68] and a commitment to working with their therapist.[69,70] Therapist engagement and relationship development behaviours described previously help these attitudes to develop. Patients who show good engagement in therapy often describe their therapist as being attractive.[32,58,59,71–74] In contrast, defensiveness and hostility have been negatively linked to the quality of the patient's working relationship.[75]

Maintaining the relationship

As therapy progresses it is likely that difficulties in the relationship will arise. Although these are common, therapy may be impeded if the problems are not resolved. These threats to the relationship have been grouped into 'therapist behaviours', 'patient behaviours' and 'relationship challenges'; and therapist actions needed to avoid or resolve these threats grouped as 'self-reflection', 'metacommunication', 'flexibility' and 'repair' (*Table 3*).

Threats

Therapist behaviour

Both patient and therapist may have negative feelings towards the other person. Therapists have commonly reported feelings of fear, anger and attraction towards patients. Therapists' negative feelings towards patients have been shown to result in a decrease in patient functioning during treatment. Often these feelings are not spoken about as therapists report being ashamed of their negative reactions, although occasionally they report recognition of such feelings as having positive consequences.[76] Other therapist behaviours that patients have described as intrusive and defensive and as having a negative impact on the relationship include therapists imposing their own values, making irrelevant comments, or being critical, rigid, bored, blaming, moralistic or uncertain.[77] Poor use of therapeutic techniques, such as continued application of a technique when not accepted by or found to be

TABLE 3 *Maintaining the relationship*

Threats	Processes	Objectives
Therapist behaviour Intrusive Defensive Negative feelings Self-disclosure	Self-reflection Metacommunication	
Patient behaviour Resistance Hostility Negative feelings	Flexibility Responsiveness	Satisfaction Alliance Cohesion Emotional expression Changing view of self
Relationship challenges Ruptures (confrontations or withdrawal) Misunderstandings	Repair	

helpful by the patient, and poor use of silence are linked with a poor relationship.[75,78]

Patient behaviour

Patients tend to hide their negative feelings (such as fear, hostility and anger) and often the therapist is unaware of what the patient is feeling. Such patient deference to the therapist has been linked with poor outcome.[28,75,79]

Resistance was originally developed as a psychoanalytic concept of the patient's unconscious avoidance from the analytic work. It was later developed in social psychology as a theory of psychological reactance that was seen as a normal reaction to a perceived threat. Social influence theory defined the concept of resistance as a product of incongruence between the therapist's behaviour and the power or legitimacy ascribed to the therapist. Resistance can be seen in patients as both a state expressed, such as anger and resentment, and a trait (described above). Trait-resistant patients are more likely to drop out of therapy. Recognition of resistance states should be acknowledged and the therapeutic contract renegotiated. Treatment plans with patients with high resistance traits should de-emphasise the therapist's authority and therapists should avoid stimulating the patient's level of resistance.[28,80]

Relationship challenges

Misunderstanding between patients and therapists on the goals and tasks of therapy may result in confrontations, patient withdrawal and misunderstandings.[28,81,82] Such ruptures in therapy are common and an expected part of treatment.[28,75,77,83] Crits-Christoph[84] describes ruptures as transference reactions; others when the therapist makes mistakes, is anxious or has a strong need for approval, or when patients experience negative feelings about the therapist as a result of the therapist doing something they did not want, or not doing something they did want.

Processes

Reflection and metacommunication

Therapists' ability to reflect on their own position and feelings may enable problems in the relationship to be resolved.[75] This includes observation of counter-transference feelings. Definitions of counter-transference have changed over the years; however, currently, it is seen as an interactional process, which can be both helpful and problematic and include 'resistance' in the therapist owing to inner conflicts and specific reactions of a therapist to specific transferences of the patient. Related concepts include therapists' withdrawal, overprotectiveness, sympathy or identification with the patient.[85] Management of counter-transference issues consists of five interrelated factors: self-insight, self-integration, empathy, anxiety management and conceptualising ability.[86]

Flexibility

Of paramount importance in maintaining the relationship is the therapist's ability to tailor therapy to the individual needs and characteristics of patients. This involves therapists responding appropriately to relational fluctuations so that negative reactions are contained and managed. For example, therapists' inflexible adherence to treatment strategies (either cognitive or interpretations) is associated with poor relationships.[87] Flexibility is, therefore, required: higher alliance ratings are given to therapists who are seen as flexible.[87]

Responsiveness

Appropriate responsiveness refers to therapists' moment-to-moment adjustments to patients' requirements within the framework of an individual treatment's goals and standards.[87] This description of the way therapist and patient respond to each other is cyclical, with each participant affecting the behaviour of the other, which in turn affects their own response.[66] This mutual influence process suggests why research that assumes a linear relationship between, for example, patient characteristics and outcome produces conflicting findings.

Rupture resolution

As described earlier, ruptures are an expected part of the treatment process. Non-resolution may lead to treatment failures. In contrast, there is some evidence that resolution of a rupture leads to a deeper and better relationship and treatment outcome.[35,37,52,88]

Safran and colleagues[89,90] have developed a model of rupture resolution which begins with the therapist attending to rupture markers, which are usually indicated by patient withdrawal or confrontation. The patient and therapist then explore the rupture experience, including avoidance, which then leads to the emergence of a patient's wish or need.

Maintaining relationship objectives

Different types of therapy assume the importance of different aspects of the relationship: these various objectives or outcomes of patient–therapist interactions have been grouped into five elements:

satisfaction, alliance, cohesion, expressed emotions and changing view of self with others.

These relationship objectives are not separate, discrete elements; they overlap and have common features. They are not really outcomes, in the sense of change in patient symptoms or quality of life, but they represent a meeting point of therapist interpersonal behaviours, client characteristics and relationship processes, and form a description of the quality of the relationship.

Satisfaction

The first element includes general satisfaction with the relationship and patients' positive appraisal of the relationship.[83,91,92] Patients' satisfaction with their therapist is associated with their satisfaction with therapy in general.[93] It is an experiential phenomenon rather than behavioural; patients tend to be less discriminating than therapists about the quality of their relationship, forming a global positive or negative impression of the relationship.[28] Patients and therapists often value different things; for example, patients' satisfaction is generally associated with confirmed expectations.[93]

Dissatisfaction is the most frequent reason given for leaving therapy and for non-compliance.[95] Given that about 25–59% of patients are non-compliant with treatment, this is an important issue.[94] High levels of satisfaction are linked to good compliance and higher levels of engagement.[28,95]

Alliance

Achieving a working relationship is the most important aspect of therapy that thus far has been linked with treatment outcome.[96] This is referred to as the alliance (working, therapeutic, etc.). Although there are important differences in the definitions of the alliance,[26] for example, a major controversy exists whether the alliance arises from the interpersonal process or is an intrapsychic phenomenon[82] and different therapies will emphasise different aspects of the alliance, it is the quality and strength of the collaborative relationship between patient and therapist that appears important.[45]

The most frequently used definition of the alliance is by Bordin,[48] who describes three elements of the relationship: consensus with regard to task; affective bond (trust, liking, caring); and agreement on goals (actively committed, purposeful). It is thought that task and goal are more important than bond.[79] This is in part because the bond develops slowly, whereas task and goals need to be established quickly.[33]

Cohesion

Cohesion refers to a similar concept to alliance, except that it refers to relationships established in group work. Systemic definitions of therapeutic relationships involve multiple alliances: member to member, member to leader, leader to leader and leader to group. This means that the features of the alliances or of cohesion are intrapersonal, interpersonal and intragroup, plus a bonding, collaborative working alliance of the group.[97]

Expressed emotion

For some therapies the relationship is the vehicle for emotions to be supported and expressed; the emotional relationship is seen as being a cathartic experience,[44,98] although for others the emotional experience leads to change in cognitions and self-understanding and for others experiential insight is the key to change.[45,79]

Changing view of self with others

Several reviews describe the purpose of the relationship as enabling alternative views of the self to be explored. These are sometimes referred to as narrative truths: social constructionism describes the processes in therapy as the patient and therapist constructing the relationship together, where old problems are deconstructed and new narratives arise.[84,87,91]

Patient factors

Patient factors that impact on the quality of the therapeutic relationship are considered here (*Table 4*). Two of the main patient characteristics found by Beutler[25] to moderate treatment outcome and poor therapeutic relationships are functional impairment and coping style. Functional impairment includes problems in work, social and intimate relationships. Problem complexity has also been associated with poor relationship development.[99] One significant factor related to negative outcome is therapists' underestimation of the seriousness of problems.[100]

In contrast, factors that may be associated with the development of good working relationships include patients who have had therapy previously, have less severe personality disturbances and have begun to address their problems.[101]

The impact of past and current relationship experiences on the development of the

TABLE 4 *Patient and therapist individual differences*

Patient differences	Therapist differences
Coping style	Attachment style
Severity of impairment	Attitudinal variable
Relationship experiences	Relationship experiences
Social support	Values
Defensive style	

patient–therapist relationship has already been discussed in the section 'Transference' (p. 9). Other terms used to describe these past relationship experiences include dysfunctional relationship schemas,[90] attachment styles (see below) and negative introjects.[102]

Patients' particular attachment style has been found to influence the quality of the therapeutic relationship, with patients who have insecure attachment styles less able to form satisfactory alliances.[103] Patients with an avoidant attachment style are particularly hard to engage in therapy.[28]

Systemic therapies describe a process by which therapists initially undertake compensatory relationships with patients, compensating for any reduced levels of social support they may have, and then as external support is achieved therapists take a more subsidiary role.[27] Mallinckrodt[35] describes a social competency model: maladaptive social interactions learnt in childhood are identified in therapy, and the therapeutic relationship provides patients with new experiences to broaden their social competencies and to increase the social support available to them. Peltzer[104] describes part of the role of the therapist in providing education and social support for victims of organised violence.

Patients' defensive styles, particularly the use of repression, impact negatively on the quality of the patient–therapist relationship.[52,54,60]

Therapist factors

Some therapists achieve better relationships and outcomes with their patients than others. This is found even in studies that have attempted to minimise the effects of individual therapists on patient outcomes.[105] Patients characterise some of these differences between therapists in terms of their engagement behaviour and the presence of negative behaviours. Additional therapist characteristics that are associated with negative aspects of the patient–therapist relationship include being rigid, uncertain, distant, tense and distracted, and their level of experience.[77,87]

Attitudinal variables that are associated with the development of a good relationship include perceptions that the therapist is trustworthy, interested, affirming, confident, respectful and open.[101] These attributes potentially help patients to develop confidence in and collaboration with the therapist.

There is some evidence that therapists' attachment style impacts on the quality of the relationship formed with patients. For example, therapists who have an insecure, over-involved attachment style tend to respond less empathically to patients than secure therapists.[28] In addition, therapists who impose their values on patients tend to have poorer alliances.[39,56,72,106–109]

Contextual factors

Both broad factors such as the social grouping to which patients and therapists belong, and aspects of the therapy context and how these impact on the relationship, are considered next (*Table 5*).

Therapy context

Confidentiality and boundaries

The impact of these aspects of the relationship has generally been studied only when special cases bring out ethical dilemmas or issues. For example, confidentiality and boundary issues may be challenged when working with victims of violence and abuse,[56,110] consideration of boundary issues is sometimes problematic when working with patients with learning disabilities,[111] and abuse of power happens when therapists form sexual relationships with their patients.[71,112]

TABLE 5 *Contextual factors*

Therapy context	Broader context
Confidentiality	Race, ethnicity, culture
Boundaries	Social class
Influence	Religion
Values	Age
Power	Gender
Type of therapy	

Confidentiality issues and the impact that they may have on the therapist–patient relationship are also considered when therapy is observed by others or sessions are audio- or tape-recorded.[113]

Influence

Many of the reviews mention the importance of influence in the therapeutic relationship. For behaviour therapists, their relationship is good when they are effective and influential.[67,103] This process is linked to social influence theory:[91] the ability of the therapist to influence the patient on the basis of social power. Influence is also linked to the credibility of the therapist.[73]

Power

Power has been described as the vital force in therapy.[46] The therapist is the 'expert' (behaviour therapists particularly) and can use this power to help patients to change (social influence theory). However, there is a question of whether the use of power is ethical,[50] particularly with vulnerable groups of patients, such as people with chronic personality disorders:[47] Veldhuis[92] describes how feminist therapists work to create a relationship in which power is shared. Therapists working within a social constructionist framework aim to empower patients.[114]

Type of therapy

All therapies acknowledge the importance of establishing a good working relationship with patients, although different therapies emphasise different aspects of the relationship; for example, psychodynamic and interpersonal therapists focus on the expression of emotion and problems in the relationship, whereas cognitive therapies emphasise patterns of thoughts.[51] However, the basic elements of the patient–therapist relationship remain the same for most therapies. Even in computerised therapies patients still form strong attachments to the therapy.[69]

Broader context

The broader context comprises the psychosocial arena in which the relationship develops. At this stage the focus is primarily on issues of diversity, such as cultural and demographic variables that have been found to have an impact on the therapy relationship. It is important to ground therapeutic work in an awareness and knowledge of best practice for particular diverse groups: 'cultural competency', given that most practitioners are likely to work with patients from different groups and backgrounds from their own.

Race, ethnicity and culture

Although there is limited evidence that these variables impact on therapy outcome, patients from minority groups are less likely to remain in therapy and more likely to drop out prematurely.[39,56,93,95,104,106,115,116] This suggests that there are engagement and relationship issues in working with patients from minority ethnic groups.[117,118] Again, there is little research on whether patients should be matched with therapists from the same ethnic background, social class, religion, and so on. There is some evidence that perceived similarity with one's therapist results in greater satisfaction.[95] Some of the reviews suggested that religion should be brought up to facilitate the development of the therapeutic relationship.[95,109]

The impact of diversity issues on the therapist–patient relationship occurs through two routes: first, via each person's knowledge and understandings of broader and therapy contextual factors, such as how illness and distress are understood, what credential the therapist is given, and differing concepts of the self; and secondly, through the ability of the therapist to be empathic and validate patients' feelings and experiences.[119]

Social class

Similarity in social class between therapist and patients has been linked with the formation of a better therapeutic relationship,[101] although two further reviews concluded that social class did not impact on the quality of the relationship.[57] Heitler[39] concludes that patients from lower social classes are more likely to be rejected for psychological treatment and more likely to drop out of treatment because of lack of engagement with the therapist.

Gender

It is clear that male and female therapists act differently[120] although the impact of this on the therapeutic relationship is less clear.[31,32,54,56,58,59,61,112,116,121–123]

Processes

Several reviews suggest that better management of the above factors requires therapists to be flexible in their approach to the relationship, to be reflective about their practice, and to gain greater understanding of the socio-political forces that influence their attitudes and greater knowledge of the cultural background of their patients. Therapists' recognition of their own values is also an important part of this process.

The engagement process is potentially problematic and may lead to patients dropping out of therapy. Clarity of roles and treatment aims and methods are very important, and some methods of improving engagement have been discussed in the literature. For example, preparatory techniques such as socialising patients into role expectations and providing information before meeting may be helpful.[39] Encouraging discussion about problems that arise with one's therapist (stabilising) and teaching patients about the process of therapy (structuring) are useful.

Roles

The descriptions of the roles each person plays in the interactions between therapist and patient are usually defined by the assumed theoretical background of the therapist, the patient's expectations, and recognition of the unequal power bases of the two players. The impact of these assumed roles is likely to be strongest during the early phases of the development of the relationship. The various roles ascribed to therapist and patient are described in turn (*Table 6*).

Therapist roles

Roles that have been ascribed to the therapist include friend or companion. For example, therapists working with children or with people with learning difficulties are often given this role, along with the role of an advocate.[124] These roles highlight the large potential differences in power bases between therapists and patients, and the acknowledgement that the therapist will often relate to a number of people in the patient's world as part of their therapeutic involvement.

Other writers have described a task of therapy as one of deconstructing the power of the therapist and entering a more equal friendship relationship.[125] One of the important characteristics that patients value in their therapists has been described as 'friendliness'.[84]

TABLE 6 *Therapist and patient roles*

Therapist roles	Patient roles
Friend/companion	Client
Advocate	Patient
Attachment figure	User
Expert/authority/leader	Consumer

Attachment theory describes the role of the therapist as one of providing a secure base from which the patient can explore their problems. Although part of this description includes the development of a transference relationship with the therapist, this attachment role is not confined to acknowledging and interpreting the transference, but includes a 'real' relationship that acknowledges patients' needs for security.[55]

In contrast, some therapies attribute the competence of the therapist to the authority and respect they command.[28,67,76,82,91,92,103,124,126] The expert role is linked theoretically to social influence theory, and the value of being seen as the expert is that it helps to build clients' expectancies.[73] This aspect of the therapist's role is put forward as being the route through which computer and Internet therapies achieve success.[69] Patients who achieve greater change describe their therapists as more expert.[73] In group therapy the leadership role of the therapist is described as central to the relationship between therapists and group members, and this role is defined in terms of authority and knowledge.[127]

The blank-screen role of the therapist is traditionally used in psychoanalysis. There have been many critiques of this role and it is no longer common for therapists to assume a 'blank screen' with their patients. However, the use of the term to describe how therapists should adopt a stance in relation to transference materials of the patient is still valued among many analysts, who would recognise that patients form 'real' relationships with therapists at the same time as transference relationships.[53,128,129]

Patient roles

The use of the terms such as patient, client or user reflects the increasing recognition of the unique and changing role of the person seeking help for mental health problems. The idea that the patient is a consumer of mental health services is not new, but the implications this has for the relationship has not been studied a great deal.[120] The concept of 'user-friendliness' has been developed as a process by which patients are asked specifically about the quality of their relationship with their therapist.[91]

Framework of the relationship

This section looks at the structural components of the therapist–patient relationship (*Table 7*). The framework of the relationship leads on from the

TABLE 7 *Framework of the relationship*

Managing therapy process	Matching of therapist and patient
Collaborative	Convergent
Structuring	Complementarity
Directive	Congruent

roles and from individual characteristics of the therapist and patient.

Managing therapy process

Although the evidence is that a collaborative framework is important for maintaining effective therapeutic alliance,[52,112,130] some patients require a more directive and structured approach to maintain expectancies and motivation.[27,37,73,111] Structuring the sessions is seen as an important part of the management of the relationship,[31,39] as is the ability to remain focused.[31,35,41,58,104,127,130]

Matching of therapist and patient

There is very little evidence that matching the therapist and patient on demographic variables improves the therapeutic relationship.[61] There is some evidence, however, that perspective and attitude convergence and positive complementarity are associated with higher ratings of the relationship and better outcome.[28,30,31,53,93] Positive complementarity involves both reciprocity in terms of control and correspondence in terms of affiliation.[83]

Congruence is both a personal characteristic of a therapist (genuineness) and an experiential quality. The experiential quality of the relationship refers to the therapist's ability to reveal productively their experience of being with the patient to the patient. This may be helpful for patients through improving engagement and through the exploration of the relationship.[27,30]

Summary

The establishment of a good relationship appears to be necessary early in therapy. Patients tend to emphasise the important of therapist warmth and emotional involvement at this stage, while therapists judge the quality of the relationship on patients' active participation and collaboration. Together, these make the primary components of the initial objectives for the relationship: expectancies, intentions and hope. Contextual factors, patient and therapist variables, impact on the roles and frameworks adopted in the relationship, which in turn impact on the development of the relationship. As therapy continues, the relationship becomes an arena in which therapeutic activity is carried out. These relational interventions lead to a deepening of the therapist–patient relationship, but may also lead to misunderstandings and negative reactions. Maintaining the quality of the relationship then involves therapists ensuring they are appropriately responsive to their patients, and repairing any ruptures in the relationship. Maintaining the relationship requires therapists to individualise their responses to specific aspects of patients' needs and relationship styles. In addition, an understanding of their reactions, styles and limitations helps to maintain a good working relationship. The overall objectives in therapy are for patients to be satisfied with their therapeutic relationship and to have formed good working alliances.

Inevitably, this map contains a number of weaknesses. When summarising such a vast literature, inevitably areas will have been neglected. However, attempts to prevent this have been made through the rigorous methods used to identify and summarise the literature. This method, though, has led to a second potential weakness. The map was not based on a specific theory of human interaction or on a specific psychological model. In many ways, however, this is a strength. The model encompasses a number of theoretical approaches. As it stands, it presents a useful tool for teaching and training. It highlights both the complex nature of the client–practitioner relationship, and the possibility of focusing on specific tasks at different points in therapy.

The map is intended as an organising framework, rather than a model to be tested, However, it would be useful to research further the elements within the model and the relationship of these elements to treatment outcome, patient acceptability and differences between therapies.

Chapter 3

Review to identify candidate measures of patient–therapist interaction

Review question

The aim of the review was to identify measures of therapist–patient interactions used in mental health settings, where:

- *measures* refer to a methodology for quantifying aspects of therapist–patient interactions as defined in the conceptual map derived from the scoping exercise
- *therapist* refers to any person delivering a mental health intervention
- *patient* is any person using a mental health service.

Literature searching techniques

The explicit aim was to include all possible relevant literature relating to both studies of therapist–patient interactions and tests/measures of interactions. Therefore, this review involved the search of a diverse range of sources, as described below, to maximise the likelihood of capturing all relevant material.

Search of electronic databases

As there is no single electronic database that is comprehensive enough in either subject or publication format coverage to retrieve all articles relevant to the review question, a range of databases was searched. Electronic databases that were searched included CCTR (Cochrane Controlled Trials Register), CINAHL, EBM Reviews, EMBASE, HAPI (Health & Psychosocial Instruments), HMIC (Health Information Management Consortium, comprising DH-Data, the King's Fund Database and Helmis), MEDLINE, NHS DARE (Database of Assessments of Reviews of Effects), NHS HTA (Health Technology Assessment), PsycINFO, Social Sciences Citation Index and SIGLE.

Development of search strategies

Information experts (MG, SM) from the University of Leeds were employed for the specific purpose of developing search strategies for each of the electronic databases. As databases differed with regard to subject headings and thesaurus-derived indexing terms, search strategies needed to be created for each database. The general strategy was to combine the search used for the scoping exercise described in Chapter 2 (which was used to develop the conceptual map; the terms from the search strategy rather than the map were used to ensure comprehensive coverage of the area) with a search strategy containing specific descriptors such as 'assessment instruments' and 'tests and measures'. Where electronic databases offered a limit to 'tests and measures' function, this was used in addition to descriptors. This twin-track search strategy increased the possibility of locating material on tests and measures, which would map on to the conceptual map (derived from the scoping review). The search strategies are detailed in Appendix 3. Some databases did not provide the software to support lengthy complex search strategies (SIGLE, HMIC, HAPI, Social Sciences Citation Index). For these databases, terms from the conceptual map were put in as individual free text searches.

Searching other sources

Other non-electronic sources were searched systematically. These included:

- Digests and compendia of published/commercial tests: *Tests in print*, 5th ed.,[131] *Mental measurements yearbook*, 13th ed.,[132] *Tests*, 4th ed.[133] and *Test critiques*.[134]
- Digests and compendia of unpublished/non-commercial tests: *Directory of unpublished experimental mental measures*, Vol. 7,[135] *Tests in microfiche*[136] and *The cumulative index to tests in microfiche*.[137]
- Conference proceedings, searched via the Zetoc database.
- Handsearching of key journals: *Journal of Counselling Psychology, Journal of Consulting and Clinical Psychology, Psychotherapy Research, Journal of Clinical Psychology* and *Psychological Assessment*. These journals were targeted because they had the most therapist–patient interaction references (from electronic searches) associated with them.

- Reference lists of articles on therapist–patient interaction measures were scanned to increase the likelihood of capturing relevant studies associated with therapist–patient interaction measures.

Selection of measures and associated studies

The searches described above yielded a total of 13,613 references and/or abstracts relating to tests and measures. Two project staff (JCa, KA) sifted through these references and extracted a list of candidate measures using specified inclusion and exclusion criteria. Any measures that seemed to be borderline in terms of the inclusion criteria were put into a 'possibly' file, and then consensus agreement was reached by the two project staff.

Inclusion criteria

A measure was marked for inclusion if it pertained to:

- any patient populations presenting with any mental health problem of a psychological nature (i.e. all people presenting with problems or diagnostic groups, e.g. depression, anxiety, or general)
- any practice settings (i.e. primary, secondary and specialist mental health settings)
- any interventions derived from any theoretical orientation (i.e. all theoretical approaches included, e.g. cognitive-behavioural, psychodynamic, interpersonal)
- any types of study/evidence (according to level of study hierarchy, from I to IV according to NHS Centre for Reviews and Dissemination 2001 criteria)
- any measure located within the conceptual map of therapist–patient interactions derived from the scoping exercise.

Exclusion criteria

A measure was excluded if:

- it focused on aspects other than the therapist–patient interaction (e.g. family interactions)
- it was non-English language and was associated with non-English-language articles (however, non-English-language versions of English-language measures were included if English-language articles were available)
- it focused exclusively on therapist qualities (e.g. skills) or patient qualities (e.g. personality types) without addressing the interaction.

Working list of measures

It was thought strategic to search first the database that would be most likely to yield the greater number of relevant tests and measures. Therefore, PsycINFO was targeted first, as the scope of the database seemed the most pertinent to the subject matter of the review. Then the other main electronic databases (MEDLINE, EMBASE, CINAHL, etc.) were searched for any further measures that had not already been identified by previous searches. *Figure 2* is a flow diagram, which presents the order in which electronic databases and other sources were searched. The number of measures yielded by each source independently is given (in bold), as well as the running total (regular font). A total of 260 candidate measures was available for review.

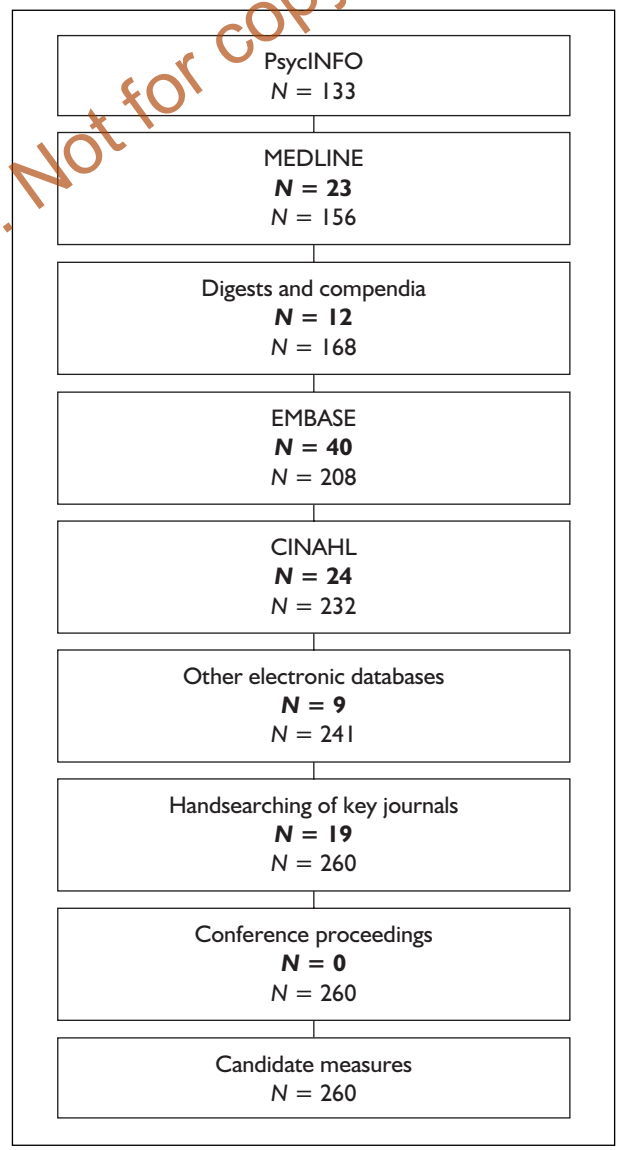

FIGURE 2 *Sources of therapist–patient interaction measures*

Chapter 4

Appraising the psychometric attributes of measures of therapist–patient interaction

Overview

A series of desirable attributes for psychometric instruments was selected from a recent systematic review commissioned by the UK HTA programme.[138] These were classified under the six broad headings listed in *Box 2*. (A seventh criterion, 'appropriateness', was not used for this review as this criterion was considered more pertinent to the appraisal of outcome measures.)

These headings were used to develop a six-stage psychometric sieve, which was to be applied to the candidate measures. The authors acknowledge that the Fitzpatrick criteria were developed specifically for the appraisal of patient-based outcome measures. In the section 'Use of Fitspatrick criteria' (p. 35) the authors highlight where application of these criteria to the measures should be treated with caution.

Psychometric sieve

An electronic sieve, as described below, was used to determine whether each of the candidate measures had information relating to reliability and validity. This information would enable the measure to be evaluated in terms of a minimum standard for critical appraisal. The standard set was basic information on reliability and validity, information that would enable the measure to proceed to subsequent quality appraisal.

Psychometric sieve 1: evidence relating to reliability

Each measure identified in the review was searched on all available electronic databases for articles pertaining to reliability. The name of the measure was entered along with terms relating to 'reliability' and all components thereof:

> [name of measure] and [psychometric propert$ or reliab$ or internal consisten$]

The number of reliability studies was logged for each measure. Measures that had been identified by non-electronic search methods were also searched on the electronic databases. It was feasible that measures that had not been picked up at the content level by electronic search methods might still have reliability and validity information. As a supplement all measures that failed to get through the electronic sieve were handsearched (see 'Limitations of the electronic sieve', below).

All measures that had at least one reliability study associated with them proceeded to the next stage.

Psychometric sieve 2: evidence relating to validity

Electronic searches on all available databases were carried out on measures that had passed the first stage to detect articles pertaining to validity. The name of the measure was entered along with terms relating to 'validity' and all components thereof:

> [name of measure] and [valid$]

BOX 2 *Fitzpatrick criteria*

A. Reliability	A reliable measure is one that produces consistent results from the same respondents at different times where there exists no evidence of change
B. Validity	The extent to which a measure really measures the concept that it purports to measure
C. Responsiveness	Addresses the question: does the instrument detect changes over time that matter to the patient? It can be discriminative (between individuals) or evaluative (within an individual across time)
D. Acceptability	Addresses the question: is the measure acceptable to users?
E. Feasibility	Is the measure easy to administer and process?
F. Precision	How precise is the measure?

The number of validity studies was logged for each measure. All measures that had at least one validity study associated with them proceeded to successive stages of the psychometric sieve.

Limitations of the electronic sieve

It was found that some articles had failed to pass through the electronic sieve owing to the following factors:

- The abstract/title/keywords did not include the terms relating to reliability and validity as specified in the electronic searches described above; for example, an author may have written about Cronbach's alpha when referring to the reliability of the measure.
- The abstract/title/keywords of an article included terms relating to validity but not reliability, meaning that the measure would not have passed through stage 1 of the psychometric sieve. On closer examination, these articles did in fact address reliability issues that were not specified in searchable fields.

The electronic sieve developed for the review was not precise or inclusive enough. However, searching methods that rely on abstracts being precise or explicit are vulnerable to the detection of false negatives. In such cases, it is essential to do a manual check on 'excluded' measures. Each measure that failed to pass through the first two stages of the electronic sieve (n = 138) was searched on all databases to retrieve the full reference relating to that measure. Each of these abstracts was reread and the measure's status reassessed. In the cases where the abstract did not give adequate information the article was obtained and scanned. Of the 138 measures that originally failed to pass through the electronic sieve, 29 measures were found to satisfy the minimum standard. These 29 measures were combined with the 122 measures that had passed through the electronic sieve to yield a total of 151 measures that satisfied stages 1 and 2 of the electronic sieve.

All measures that failed to pass through stages 1 and 2 of the electronic sieve are listed in Appendix 4.

Excluded measures

Many of the 151 measures (n = 68) were excluded on the basis of the following criteria by two senior research staff. (Some of the exclusion criteria replicate those described in Chapter 3. This is due to certain measures being excluded not on the basis of electronic information (title/abstract), but through closer examination of content.) These measures were not subject to critical appraisal in terms of a minimum and industry standard and are listed in Appendix 5.

- Personality inventories
- satisfaction scales (measuring satisfaction with treatment)
- measures relating to patient/therapist characteristics rather than the interaction
- non-mental health-related measures
- assessment measures
- measures relating to medication adherence
- social psychology measures
- measures relating to therapist techniques (with no reference to the interaction)
- treatment outcome measures
- measures for which key primary articles were unattainable
- qualitative measures.

Applying these exclusion criteria left a total of 83 measures to be considered according to the six criteria of reliability, validity, responsiveness, acceptability, feasibility and precision. Measures that demonstrated adequate reliability and validity were said to meet a minimum standard, and measures that demonstrated adequacy on the remaining four criteria were said to meet an industry standard. The term industry standard derives from literature on outcome measurement and is used to refer to the benchmark set to establish a threshold for acceptable measures in terms of both psychometric properties and clinical utility.[138,139] Acceptability and feasibility relate to issues of service implementation and user-friendliness, while responsiveness and precision relate to the discriminatory capacity and interpretability of the instrument, respectively. Operational definitions of all six criteria were drawn from key psychometric textbooks and papers and selected for their relevance to the appraisal of therapist–client interaction measures. *Table 8* gives examples of component attributes for each of these six domains.

Candidate measures

Eighty-three separate measures were available for further examination, each of which gave basic information on reliability and validity. (Where there was extensive information on each of the parallel forms, e.g. therapist, client, observer, these were treated as separate measures for purposes of data extraction and appraisal.) All references relating to each separate measure were collated and grouped in a bibliographic database.

TABLE 8 *Key psychometric attributes*[138]

Criterion	Definition
Reliability	
Internal reliability	As measured by Cronbach's alpha, split-half reliability estimates
Test–retest reliability	
Inter-rater reliability	
Validity	
Face validity	The ability of a measure to tap, by item content, an underlying dimension
Content validity	The ability of a measure to tap all the relevant aspects of the attribute it is intending to measure
Concurrent validity	Where a new measure is administered at the same time as a pre-existing one and the two are correlated
Predictive validity	The predictive power of a given measure against some other measure
Construct	Hypotheses are generated and a measure tested to determine whether it actually reflects these prior hypotheses
Convergent	A measure converges with other indications of the same concept
Discriminant	A measure demonstrates low levels of correspondence with a measure that represents another concept
Responsiveness	Addresses the question: does the instrument detect changes over time that matter to the patient?
	It can be discriminative (between individuals) or evaluative (within individual across time)
Acceptability (to practitioners and patients)	Addresses the question: is the instrument acceptable to patients?
	Practicality of administration
	Time taken to complete Length of instrument Translations Access by ethnic minorities Reading age
Feasibility	Is the measure easy to administer and process?
	Cost and burden to administrative staff Electronic/optical scanning options? Scoring systems Training package Training manual Support from measure developers FAQ facility
Precision	Interpretability
	Normative data

FAQ, frequently asked question.

The number of references pertaining to each measure ranged from one to 90.

Data extraction

For individual instruments, data were extracted in the following ways: for instruments with fewer than 20 key references, all papers were obtained. Data pertaining to the industry standard were extracted onto a standardised form. Summaries of each of the criteria (A–F) were entered into a Microsoft database and key references addressing each attribute (A–F) were cross-referenced using the relational functions of the database (see next section).

For reasons of practicality and optimal use of resources, abstracts were first consulted where an instrument had 20 or more associated references. Only those references likely to yield data relating to psychometric properties (A–F) were obtained for further inspection. Before data extraction began, all articles were sorted into primary and secondary references. Primary references typically concerned issues of measure development and

validation. Secondary references pertained to the use and application of the measure. Primary articles were then selected for data extraction as outlined below. As primary references contained the most relevant psychometric information on the measure, it was considered an optimal use of time and resources to prioritise these for data extraction.

Access database

To aid efficient retrieval and interpretation, extracted data were entered into a Microsoft Access relational database, which had been designed specifically for this project. Use of a relational database, rather than traditional data extraction sheets, meant that data could be easily updated, sorted by specific criteria and combined according to specific requirements using the 'query' facility, which allows data to be viewed, retrieved and analysed in many different ways. To facilitate data entry, viewing and modification, three data entry forms were created. These forms related to data extracted on measures, references, and the interrelationship between references and measures (necessary as one reference could relate to many measures). See Appendix 6 for examples of data entry forms.

Measures section

Data pertaining to the 83 measures reaching 'minimum' standard were entered. This was a summary of data from primary references. The data entered related to the key areas of responsiveness of the measure (e.g. detection of change), acceptability (e.g. time taken to complete, number of items, translations, reading age), feasibility (scoring options and systems, training requirements) and precision (e.g. availability of normative data). The measures section was directly linked to the references section, making available a list of all references relating to a specific measure.

References section

This section contains details of the references for the current literature relative to the subject area and its relation to a specific measure. The information held in this section is primarily objective, specifically the title of the reference, journal, year, volume, authors, type or article [e.g. review, randomised controlled trial (RCT) development, psychometric].

References and measures

This section brings together the information from the previous two sections and is necessary as one reference can relate to many measures and vice versa. This section is the primary data entry point for data extracted from the literature and includes the following subsections:

- Reliability values for internal consistency, inter-rater reliability, test–retest and split-half reliability, together with the tests used. Any further related information can be added to individual notes sections.
- Details in note form on validity, specifically face, content, criterion, concurrent, predictive and convergent validity, plus factor structure and responsiveness information.
- Populations/practitioners/services: this subsection includes summary information from the literature on the populations with which the measure has been used (e.g. whether information on age, gender, ethnicity is included), by whom it has been used/rater type (e.g. psychiatrist, social worker, counsellors), the theoretical orientation (e.g. cognitive-behavioural, psychodynamic) and the level of service in which it has been used (e.g. NHS, primary, commercial).

Data extractions were conducted by research staff. No formal measure of reliability of data extraction was calculated, but disagreements and queries were resolved by discussion with senior research staff.

Measure summaries

Development of a measure summary sheet

A measure summary sheet (see Appendix 7) was designed to address each of the six psychometric properties (A–F). All information pertaining to these criteria was retrieved from the database and entered on to the summary sheet. To retrieve the information, the data from the three main sections of the database, referred to above, were cross-referenced using the 'query' facility of the relational database. A résumé of the measure was included at the end of each summary sheet to give an indication of the overall status of the measure in relation to how each of the criteria had been addressed. As before, no formal measure of the reliability of data summarising was calculated, but queries and disagreements were resolved by discussion. All summary sheets were checked by senior research staff and sample data summaries were discussed at research meetings to ensure standardisation.

Methods for appraisal of an industry standard

Each measure was critically evaluated using data from primary articles, which had been entered on to the summary sheet. When there was enough evidence for appraisal from primary articles, secondary articles were not consulted. However, for measures that had fewer primary articles associated with them, secondary articles were consulted for further psychometric data. This was to avoid any bias that could favour the older, more established measures, which had been extensively researched. In cases where reviews on a measure were available, these were used for the appraisal.

Two research staff then applied coding instructions for quality assessment to each of the six criteria. This procedure enabled a quality appraisal of each measure, which was reached by consensus between the two staff. The coding instructions for the six criteria are derived from NHS Centre for Reviews and Dissemination[140] and detailed in *Table 9*. The codings provide a global estimate of each of the criteria. For example, when more than one reliability estimate is supplied, an average is taken. For full details of the psychometric properties of each measure, see Appendix 8.

There was an absence of inter-rater reliability estimates associated with the rating of the therapist–patient interaction measures, therefore limiting assessment of quality. However, as an extension of the work on which this report is based, the authors are currently using a revised coding structure[141] and estimating inter-rater reliability for each of the attributes of the coding scheme (for details see the section 'Quality appraisal criteria', p. 33). The attributes and criteria for measuring them incorporate more succinct operational definitions and assessment of the rigour of the study's design methodology in which the measures are used.

TABLE 9 *Coding instructions for quality assessment*

Fitzpatrick criteria	Coding	Explanation
Reliability[a]	Adequate	⩾0.70
	Partial	⩾0.50 < 0.70
	Inadequate	<0.50
	Unknown	Reliability estimates not supplied
Validity	Adequate	⩾0.50
	Partial	⩾0.30 < 0.50
	Inadequate	<0.30
	Unknown	Validity estimates not supplied
Responsiveness	Adequate	Significant differences found between groups or within individuals
	Partial	Non-significant trends found between groups or within individuals
	Inadequate	Not addressed
Acceptability	Addressed	All of the components described
	Partially addressed	At least one of the components described
	Not addressed	None of the components described
Feasibility	Addressed	All of the components described
	Partially addressed	At least one of the components described
	Not addressed	None of the components described
Precision	Addressed	All of the components described
	Partially addressed	At least one of the components described
	Not addressed	None of the components described

[a] Standards for reliability and validity were taken from Barker *et al*. (1994).[142]

Chapter 5

Results

Primary evidence associated with candidate measures

Table 10 presents a list of all measures that had basic information relating to reliability and validity. The measures are ranked in descending order of the number of primary articles associated with each measure. *Table 11* lists all measures that had only one primary article associated with them.

Content of candidate measures

Appendix 9 presents a content description of each measure (n = 83) selected for critical appraisal together with associated areas of the conceptual map.

TABLE 10 *Number of primary articles associated with candidate measures*

Measures	No. of primary references
Core Conflictual Relationship Theme	30
Affective Sensitivity Scale: Form A, C, D, D-80 and E-80	16
Barrett-Lennard Relationship Inventory	16
California Psychotherapy Alliance Scales	15
Counselor Rating Form	10
Working Alliance Inventory	10
Hill Interaction Matrix	9
Carkhuff 1969 Scales	8
Penn Helping Alliance Rating Scale	8
Session Evaluation Questionnaire	8
Counselor Verbal Response Category System	7
Penn Helping Alliance Questionnaire	7
Comprehensive Process Analysis	6
Counselor Rating Form – Short Version	6
Multicultural Counseling Inventory	6
Psychotherapy Process Q Set	6
Truax and Carkhuff 1967 Scales	6
California Therapeutic Alliance Rating System	5
Cross-Cultural Counseling Inventory Revised	5
Truax and Carkhuff Accurate Empathy	5
Counseling Evaluation Inventory	4
Counselor Evaluation Rating Scale	4
Experiencing Scale	4
Hill Interaction Matrix – Form G2	4
Missouri Identifying Transference Scale	4
Vanderbilt Therapeutic Alliance Scale	4
Capacity for Dynamic Process Scale	3
Carkhuff Empathic Understanding	3
Client Attachment to Therapist Scale	3
Client Behavior System	3
Counselor Effectiveness Rating Scale	3
Counsellor Effectiveness Scale	3
Counselor Verbal Response Category System – Revised	3
Group Assessment of Interpersonal Traits	3
Helping Alliance Counting Signs Method	3
Octant Scale Impact Message Inventory	3
Jourard Self-Disclosure Questionnaire	3
Penn Helping Alliance Questionnaire – Revised	3

continued

TABLE 10 *Number of primary articles associated with candidate measures (cont'd)*

Measures	No. of primary references
Therapist Action Scale	3
Vanderbilt Psychotherapy Process Scale: 80 items	3
Agnew Relationship Measure	2
Child Psychotherapy Process Scales	2
Hill Client Verbal Response Category System	2
Integrative Psychotherapy Alliance Scale	2
Program Environment Scale	2
Session Impacts Scale	2
Therapist Representation Inventory	2
Working Alliance Inventory – Short	2

TABLE 11 *Candidate measures with only one primary article*

Measure
Carkhuff Facilitative Self-Disclosure
Carkhuff Immediacy
Client Resistance Scale
Coding the Interaction in Psychotherapy
Coherence of the Relationship Theme
Counseling Evaluation Inventory – Short Version
Counselor Perception Questionnaire
Empathy Construct Rating Scale: 23 items
Empathy Construct Rating Scale: 84 items
Empathy Test
Family Engagement Questionnaire
Family Therapeutic Alliance Scale
Feminist Self Disclosure Inventory
FIRO-B
Grief Experience Inventory
Helper Behaviour Rating System
Helpful Responses Questionnaire
Intersession Experience Questionnaire
Maslach Burnout Inventory – Client
Maslach Burnout Inventory – Therapist
Patient Action Scale
Psychotherapy Process Inventory
Reasons for Ending Treatment Questionnaire
Therapeutic Alliance Scales for Children
Therapeutic Bond Scales
Therapeutic Factors Inventory
Therapist Behaviour Scale
Truax and Carkhuff Non-Possessive Warmth
Truax and Carkhuff Genuineness
Vanderbilt Negative Indicators Scale
Vanderbilt Negative Indicators Scale – Short
Vanderbilt Psychotherapy Process Scale: 44 items

Psychometric properties of candidate measures

Appendix 10 presents a key summary of the core psychometric properties of each measure according to accepted psychometric criteria and coded according to the instructions set out in *Table 9* (p. 23).

Candidate measures by theoretical orientation/discipline and perspective

Table 12 presents the number of measures, grouped according to theoretical orientation and perspective. As some measures have parallel forms, the total number exceeds 83. The figures show that the dominant theoretical orientations are psychodynamic/interpersonal and pan-theoretical, and that there is a slight bias towards observer-related measures.

Candidate measures by theoretical orientation and population group

Table 13 presents the number of measures grouped according to theoretical orientation and population group. As some measures relate to more than one population group, the total number exceeds 83. The figures show that the majority of the measures relate to adults.

Measures meeting the minimum standard

Table 14 presents the 43 measures that displayed adequate reliability and validity as specified in

TABLE 12 *Candidate measures grouped according to theoretical orientation and perspective*

Theoretical orientation/discipline	Therapist completed	Patient completed	Observer rated	Total
Pan-theoretical	8	8	15	31
Psychoanalytic/psychodynamic	7	11	12	30
Counselling	2	3	7	12
Interpersonal	7	3	1	11
Person centred	2	1	4	7
Mental health nursing	2	2	2	6
Not specified	3	2	0	5
Behavioural	0	0	1	1
Feminism	1	0	0	1
Process experiential	0	1	0	1
Psychiatry	1	0	0	1
Systemic	1	0	0	1
Total	34	31	42	107

TABLE 13 *Candidate measures grouped according to theoretical orientation and population group*

Theoretical orientation/discipline	Adult	Child/adolescent	Therapists	Groups	Families	Total
Pan-theoretical	20	1	2	2	1	26
Psychoanalytic/psychodynamic	19	1	4	0	1	25
Counselling	5	2	4	0	0	11
Interpersonal	1	0	6	2	0	9
Person centred	5	1	1	1	0	8
Not specified	2	1	1	0	0	4
Mental health nursing	2	0	0	0	0	2
Behavioural	1	0	0	0	0	1
Feminism	0	0	1	0	0	1
Process experiential	1	0	0	0	0	1
Psychiatry	0	0	0	0	1	1
Systemic	0	0	0	0	1	1
Total	56	6	19	5	4	90

Table 9. A measure was required to demonstrate at least one aspect of reliability/validity to meet criteria for adequacy. In cases where there was variability across studies ranging from partial to adequate reliability/validity, the measure was termed adequate. This was to avoid bias against measures with a larger research base.

Developing an industry standard for research

Each of these measures was then rated in terms of an industry standard. The twin criteria addressed were:

1. acceptability and feasibility
2. responsiveness and precision.

Acceptability and feasibility relate to issues of service implementation and user-friendliness, while responsiveness and precision relate to the quality of the instrument.

For criterion 1 a measure was rated in terms of how many components were addressed on acceptability and feasibility. Acceptability and feasibility each had six components. This was a judgement of the evidence base and amount of information relating to these components (i.e. whether they were addressed) and not a judgement on how acceptable/feasible the measure was. Thresholds were not established to make such evaluative judgements. For criterion 2, a measure was deemed to be adequate if the research evidence indicated that it was either responsive or precise (as set out in the coding instructions in *Table 9*).

Thirty of the measures displayed adequate responsiveness or precision. None of the 43 was fully addressed in terms of acceptability and

feasibility evidence; the majority of the measures had three or fewer components described. Measures that had more than three components described on either acceptability or feasibility are highlighted in bold in *Table 14*. These measures may have the potential to be adapted for use in service settings or in research practice settings, in that the authors had addressed the concepts of user-friendliness and service implementation.

TABLE 14 *Measures meeting criteria for adequacy on reliability and validity*

Measure ID	Name of measure	A	F	R&P	No. of primary references
B1	**Barrett-Lennard Relationship Inventory**	**4**	**2**	**A**	**16**
C18	**Counselor Rating Form**	**4**	**2**	**A**	**10**
W1	Working Alliance Inventory – Client	2	2	A	10
H6	**Hill Interaction Matrix – Statement by Statement**	**2**	**4**	**A**	**9**
A2	Affective Sensitivity Scale – Form C	2	2	A	8
C8	Carkhuff Scales	2	3	A	8
P4	**Penn Helping Alliance Rating Scale**	**2**	**4**		**8**
H7	Hill Verbal Counselor Response Category System	2	2	A	7
P3	Penn Helping Alliance Questionnaire Revised	2	3		7
W3	Working Alliance Inventory – Therapist	2	2	A	7
C2	**California Psychotherapy Alliance Scales – Patient**	**4**	**4**		**6**
M3	**Multicultural Counseling Inventory**	**4**	**2**	**A**	**6**
P6	**Psychotherapy Process Q-Set**	**2**	**4**	**A**	**6**
T10	**Truax and Carkhuff Scales**	**2**	**4**		**6**
C1	California Psychotherapy Alliance Scale – Original	2	3	A	5
C3	California Psychotherapy Alliance Scales – Rater	3	3	A	5
C22	**Cross-Cultural Counseling Inventory – Revised**	**4**	**2**	**A**	**5**
C15	Counseling Evaluation Inventory	3	3	A	4
E4	Experiencing Scale	3	3	A	4
H5	Hill Interaction Matrix – Form G	3	3		4
W2	Working Alliance Inventory – Observer	2	3	A	4
C5	California Therapeutic Alliance Rating System	3	3	A	3
C6	California Therapeutic Alliance Rating System Scales	3	3	A	3
C7	Capacity for Dynamic Process Scale	2	2		3
C10	Client Attachment to Therapist Scale	2	2	A	3
C16	Counselor Effectiveness Rating Scale	2	1		3
G1	**Group Assessment of Interpersonal Traits**	**2**	**4**	**A**	**3**
H3	Helping Alliance Counting Signs Method	3	3	A	3
H8	Hill Counselor Verbal Response Category System – Revised	2	3	A	3
T4	Therapist Action Scale	3	3		3
A7	Agnew Relationship Measure	2	2	A	2
I1	**Integrative Psychotherapy Alliance Scale**	**3**	**4**		**2**
S4	Session Impacts Scale	2	2		2
A5	Affective Sensitivity Scale – Forms E-80 and E-A-2	2	2		1
A6	**Affective Sensitivity Scale – Form H**	**2**	**4**	**A**	**1**
C12	Coding the Interaction in Psychotherapy	3	3	A	1
C19	**Counselor Rating Form Short Version**	**5**	**2**	**A**	**1**
C21	Counselor Perception Questionnaire	3	2		1
E1	Empathy Construct Rating Scale – 23	2	2	A	1
E2	Empathy Construct Rating Scale – 84	2	2		1
F3	Feminist Self-Disclosure Inventory	2	3	A	1
P5	Psychotherapy Process Inventory	3	2	A	1
T3	Therapeutic Factors Inventory	2	2	A	1

A, acceptability; F, feasibility; R&P, responsiveness and precision.

Chapter 6

Conclusions and recommendations for further research

Conclusions

The conclusions cover issues arising from the scoping review (conceptual), methodological issues and results.

Scoping review

Three developmental processes were identified as necessary for the provision of an effective therapeutic relationship. These are summarised in 'establishing a relationship', 'developing a relationship' and 'maintaining a relationship'.

Key processes involved in establishing what might be called 'mini-outcomes' or 'objectives' for each phase are listed. It is assumed that although these stages develop across therapy, there will also be a cycling through these stages within a therapeutic meeting, or over a number of weeks or months.

Therapist, patient and contextual factors determine the nature of the roles and frameworks within which the therapeutic interactions take place. These, in turn, impact on the processes and outcomes of each phase of the relationship.

Identification of measures

Electronic searches on bibliographic databases identified a total of 241 measures for review and handsearching methods identified a further 19 measures.

A total of 151 measures had information pertaining to reliability and validity as demonstrated by the electronic sieve. Twenty-nine of these measures were incorrectly excluded by the electronic sieve.

Of the 151 measures, 68 were excluded on the basis of their content domain not meeting requirements, leaving a total of 83 measures for critical appraisal.

Critical appraisal of measures

The areas of the conceptual map that received most coverage (i.e. over 50% of measures associated with them) were framework, therapist and patient engagement, roles, therapeutic techniques and threats to the relationship. These areas relate to the three key developmental processes outlined above.

Eighty-six per cent of the measures were developed in the USA. The remaining measures were developed in the UK, Canada, Australia and Germany.

Over one-third of the 83 measures (35%) had only one primary article associated with them.

The majority of the measures were developed within pan-theoretical or psychodynamic/psychoanalytic perspectives, were observer rated and related to adult population groups.

Towards an industry standard

Of the 83 measures matching the content domain, 43 met the minimum standard. A total of 30 measures displayed adequate responsiveness or precision. None of the 43 measures that met the minimum standard was fully addressed in terms of acceptability and feasibility evidence. The majority of these measures had three or fewer components described. Therefore, out of a total of 83 measures matching the content domain, no measure could be said to have met an industry standard.

Recommendations for further research

On the basis of the above findings, the authors make the following observations and recommendations in five areas: policy, priorities and planning of research; accessibility of measures and information relating to them; methodological issues regarding electronic searching; focus of research effort; and developing an industry standard.

Policy, priorities and planning

In contrast to outcomes and outcome measurement, there is currently no driver from policy space that provides a rationale for developing and researching measures of

therapist–patient interactions. As such, this area of work lacks a direct link into policy and practice.

The authors recommend that a review of policy documents should be carried out, focusing on the effects of common factors.

The review has shown that it is possible to measure therapist–patient interaction using a wide range of instruments of varying value.

Care should be taken in ensuring that therapist–patient interaction measures are suitable for the context in which they are to be used, by referring to agreed psychometric standards.

Much of the work reviewed lacks any coordinated planning and approach by researchers. There is a need for more systematic research on individual measures to ensure that they meet the wider range of psychometric criteria required to justify their inclusion in research and practice. In the UK, the Department of Health-funded Outcomes Measures Implementations Group has been set up as a forum to discuss issues related to implementation of outcomes measures. At a practice research level, the Clinical Outcomes in Routine Evaluation (CORE) Network is currently evolving a new paradigm of quality evaluation.[143] Services comprising the CORE Network collect data from the CORE measures in a supported standardised database (CORE-PC) and donate them to the CORE system trust to develop CORE national research databases. However, there is currently no parallel research network activity for the development of therapist–patient measures.

Building on the recent advances in outcomes measurement activity, specific research networks could be established to provide the necessary capacity and continuity for development and research on a therapist–patient measure (or group of measures) to take place.

Accessibility of measures and information relating to them

Gaining access to information about measures is time-consuming and may lead to a less than optimal decision.

The authors recommend that a website be made available that could house summaries of current research on measures to ease the decision-making process.

Gaining access to some of the measures proved difficult, as many are only available from non-commercial sources.

As many measures as possible should be made available from a single source.

Methodological issues regarding electronic searching

The electronic sieve did not correctly classify all measures.

The authors recommend that electronic searching techniques be verified and supplemented by handsearching techniques.

Focus of research effort

Although the core developmental processes outlined in the conceptual map are adequately covered in terms of content, one-third of the measures have only one primary article associated with them.

The authors propose that research activity should prioritise investment in establishing a more robust evidence base for existing measures, rather than attempting to develop new ones. However, where research effort and time are invested in new measures, this should be done strategically and in a planned and coordinated fashion that will serve national policy needs.

The majority of the measures are North American in origin.

The authors recommend that more research activity (as opposed to more measures) in the UK should be allocated to the study and development of process measures to ensure an evidence base attesting to their transportability.

The psychodynamic and pan-theoretical orientations are currently overrepresented. There is a lack of measures relating to non-adult population groups and a bias towards observer-rated measures.

The authors suggest that any development of future measures should relate to other theoretical orientations and more diverse population groups, and should focus on therapist and patient perspectives.

Developing an industry standard

Of the additional psychometric criteria defining the industry standard, acceptability and feasibility were not adequately addressed by any measure.

The authors recommend that research activity should focus on improving existing measures in terms of acceptability and feasibility issues; in particular, user support from measure developers, translations to enhance access by minority ethnic groups, and web or scanning options. Such moves would ensure that measures could be successfully implemented in practice and research settings.

Chapter 7

Client–practitioner interaction: future directions

Addendum to 2003 report

Since the production of the original 2003 report the authors have taken the work forward in the light of valuable feedback from an American Psychiatric Association (APA) journal. Accordingly, points to consider when reading this report are outlined below.

Terminology

A decision was made to change the terminology from therapist–patient interactions to client–practitioner interactions. The authors believe that this terminology was applicable to and more inclusive of a greater range of therapies and professions.

Quality appraisal criteria

The main issues arising from the application of systematic quality appraisal criteria to the present area are as follows.

Study design and methodology

Some measures with reported high reliability and validity estimates from methodologically poor study designs were termed as having met the minimum standard of psychometric data. The converse of this was the exclusion of many high-profile measures which were lacking in positive validity evidence as a result of having been rigorously tested and examined with more robust study designs. The positive research evidence stipulation was a particular problem in this study relying, as it did, on somewhat crude thresholds and resulting in the exclusion of 26 measures (*Table 15*) that have been used extensively and productively in the field of process research, as indicated by the number of citations in the Web of Science.

Assessment of primary studies

The authors suggest the introduction of some guidelines for assessment of the primary studies that form the evidence base for appraisal of the

TABLE 15 *Excluded measures*

Measure	Author(s), year	Exclusion category	Web of Science citations	
			All	Excluding self-references
Affective Sensitivity Scale – A	Campbell, Kagan & Krathwohl, 1971	1	0	0
Affective Sensitivity Scale – D	Kagan & Schneider,1987	2	0	0
Affective Sensitivity Scale – D80	Kagan & Schneider, 1987	2	0	0
CALPAS – Therapist	Gaston & Marmar, 1991	0	0	0
Child Psychotherapy Process Scales	Estrada & Russell, 1999	3	2	0
Client Resistance Scale	Mahalik, 1994	2	1	0
Coherence of the Relationship Theme	Mitchell, 1995	2	1	0
Core Conflictual Relationship Theme	Luborsky, 1977	1	61	48
Counsellor Effectiveness Scale	Ivey, 1971	0	0	0
Counselor Evaluation Rating Scale	Myrick & Kelly, 1971	3	2	2
Empathy Test	Layton & Wykle, 1990	2	4	4
Family Engagement Questionnaire	Kroll & Green, 1997	2	0	0
Family Therapeutic Alliance Scale	Martin & Allison, 1993	3	0	0
Helper Behaviour Rating System – Modified	Shapiro, Barkham & Irving, 1984	3	0	0
Helpful Responses Questionnaire	Miller, Hedrick & Orlofsky, 1991	3	2	1

continued

TABLE 15 *Excluded measures (cont'd)*

Measure	Author(s), year	Exclusion category	Web of Science citations	
			All	Excluding self-references
Hill Client Verbal Response Category System	Hill, 1986	3	0	0
Intersession Experience Questionnaire	Orlinsky, Geller, Tarragona & Farber, 1993	2	0	0
Maslach Burnout Inventory (Therapist and Client Versions)	Linehan, Cochran, Mar, Levensky & Comtois, 2000	1	1	0
Missouri Identifying Transference Scale	Multon, Patton & Kivlighan, 1996	3	4	2
Octant Scale Impact Message Inventory	Keisler, Schmidt & Wagner, 1997	1	1	0
Patient Action Scale	Hoyt, Marmar, Horowitz & Alvarez, 1981	1	1	0
Penn Helping Alliance Questionnaire	Alexander & Luborsky, 1986	0	3	3
Reasons for Ending Treatment Questionnaire	Garcia & Weisz, 2002	3	1	0
Session Evaluation Questionnaire	Stiles, 1980	3	4	4
Session Evaluation Questionnaire – Form 3	Stiles & Snow, 1984	3	6	5
Session Evaluation Questionnaire – Form 4	Stiles, Reynolds, Hardy, Rees, Barkham & Shapiro, 1994	3	4	2
Therapeutic Alliance Scales for Children	Shirk & Saiz, 1992	1	2	2
Therapeutic Bond Scales	Saunders, Howard & Orlinsky, 1989	1	0	0
Therapist Behavior Scale	Duckro, George & Beal, 1980	3	0	0
Therapist Representation Inventory – Therapist Embodiment Scale	Geller, Cooley & Hartley, 1981	1	2	0
Therapist Representation Inventory – Therapist Involvement Scale	Geller, Cooley & Hartley, 1981	3	2	0
Therapist Representation Inventory – Record of Dreams	Geller, Cooley & Hartley, 1981	0	0	0
Therapist Representation Inventory – Free Response Task	Geller, Cooley & Hartley, 1981	0	0	0
Vanderbilt Negative Indicators Scale	Suh, Strupp & Malley, 1986	1	1	1
Vanderbilt Negative Indicators Scale – Short	Nergaard & Silberschatz, 1989	3	0	0
Vanderbilt Psychotherapy Process Scale – 80 items	Suh, Strupp & O'Malley, 1986	3	8	6
Vanderbilt Therapeutic Alliance Scale	Hartley & Strupp, 1983	3	4	4
Working Alliance Inventory – Client Short Form	Tracey & Kokotovic, 1989	3	2	1
Working Alliance Inventory – Observer Short Form	Tracey & Kokotovic, 1989	3	2	1
Working Alliance Inventory – Therapist Short Form	Tracey & Kokotovic, 1989	3	3	2

measures. At present, several checklists are available for the quality appraisal of both randomised and non-randomised studies of interventions.[144] However, there is a current gap in the literature for an equivalent tool for the assessment of primary studies associated with measures. In response to APA reviews, the authors have identified and adapted review criteria formulated by the Scientific Advisory Committee of the Medical Outcomes Trust. These criteria

pertain to key attributes of health status and quality of life instruments (e.g. reliability, validity, responsiveness, interpretability, respondent and administrative burden, cultural and language adaptations). The criteria against which the instruments/measures are reviewed on these attributes are much more closely linked to the rigour of the study in which the measures are used. A copy of this rating tool is found in *Figure 3*. Although these criteria are at the piloting stage, they may be used as a starting point for reviewing therapist–patient interaction measures.

Meta-analytic procedures for measures

In conventional systematic reviews, each trial might be associated with one or more papers (with the usual number being one), whereas in the current context, a number of measures was associated with multiple papers. There was also a difference in terms of the impact of multiple studies: each RCT of effectiveness adds to knowledge of the effect of a treatment, by changing the estimate of the effect size and the confidence interval through meta-analysis. This was not the case with data on issues such as reliability, where continued demonstrations did not add to knowledge of the instrument's reliability, but reflected the size of the literature associated with the instrument. At present, there is no direct analogue of the process of meta-analysis with measures rather than interventions. However, there is an evolving technology of the systematic review of diagnostic and rating instruments used in psychological assessment,[145] and the techniques of meta-analysis and systematic review have more recently been applied to the performance of depression rating scales,[146] although in this case such scales can be compared on a common standard (i.e. case finding). Appropriate systematic appraisal criteria for process measures would complement and counterbalance this evolving literature. The authors anticipate that use of the new rating tool (*Figure 3*) may be an important first step towards achieving this.

Use of Fitzpatrick criteria

The Fitzpatrick criteria were developed specifically for the appraisal of patient-based outcome measures. Areas where such criteria may be problematic for the assessment of client–practitioner interaction measures identified in the present study are described below.

Validity issues

Validity is multifaceted, concerning the ways in which a measure demonstrates that it assesses what it purports to assess. There needs to be an understanding of the way that the process components in psychotherapy operate. For example, process–outcome correlation logic overlooks therapist and client responsiveness to varying client requirements for process components, which is a factor that can cause null findings, responsiveness being inherently non-linear.[147] On this basis, it may be suggested that any criteria should be critically appraised themselves, and informed by relevant debates in the process literature, before being used for purposes of critical appraisal.

Responsiveness

Null findings relating to the ability of an instrument to measure change over sessions could be reflecting the non-linear nature of client and practitioner responsiveness.

Acceptability and feasibility

Acceptability and feasibility were not operationalised sufficiently clearly in the review. This was in part related to the different purpose of process measures in psychotherapy research and practice. Historically, process measures have been used more for in-house research trials and monitoring of therapist skills or therapeutic relationships, rather than benchmarking and dissemination, as is the case with outcome measures. For this reason, the length of the instrument and details on completion time and reading age should not be accorded the same importance in an assessment of a process measure as for an outcome measure being selected for inclusion in a trial where high response rates from patients are essential.

Inter-rater reliability estimates

There was an absence of inter-rater reliability estimates associated with the rating of the client–practitioner interaction measures. The authors are currently using a revised coding structure[141] and estimating inter-rater reliability for each of the attributes of the coding scheme (see above and *Figure 3*). The attributes and criteria for measuring them incorporate more succinct operational definitions and assessment of the rigour of the study's design methodology in which the measures are used.

ID

Reliability: internal consistency			**Yes = 1 No = 0 9 = Unable to determine N/A = Not applicable to measure**
1	Methods to collect reliability data	☐	Information on (a) methods of sample accrual and sample size; (b) characteristics of sample; (c) testing conditions; (d) descriptive statistics for the instrument
2	Reliability estimates and standard errors for all score elements (classical test) or standard error of the mean over the range of scale and marginal reliability of each scale (modern item response theory)	☐	
3	Data to calculate reliability coefficients or actual calculations or reliability coefficients	☐	
4	Above data for each major population of interest if necessary	☐	e.g. Different language and cultural groups; different diagnostic groups; clinical/non-clinical populations

Reliability: reproducibility (inter-rater reliability or test–retest reliability) **Yes = 1 No = 0 9 = Unable to determine N/A = Not applicable to measure**			
5	Methods employed to collect reliability data	☐	Information on (a) methods of sample accrual and sample size; (b) characteristics of sample; (c) testing conditions; (d) descriptive statistics for the instrument
6	Well-argued rationale to support the design of the study and the interval between the first and subsequent administration to support the assumption that the population is stable	☐	
7	Information on test–retest reliability and inter-rater reliability based on intraclass correlation coefficients	☐	
8	For item response theory applications: information on the comparability of the item parameter estimates and on measurement precision over repeated administrations	☐	

Validity **Yes = 1 No = 0 9 = Unable to determine** **N/A = not applicable to measure**			
9	Rationale supporting the particular mix of evidence presented for the intended cases	☐	
10	Clear description of the methods employed to collect validity data	☐	Information on (a) methods of sample accrual and sample size; (b) characteristics of sample; (c) testing conditions; (d) descriptive statistics for the instrument
11	Composition of the sample used to examine validity (in detail)	☐	
12	Above data for each major population of interest	☐	

FIGURE 3 *Rating tool for appraisal of client–practitioner interaction tests and measures*

13	For construct validity, present hypotheses tested and data related to the tests	☐	
14	Clear rationale and support for the choice of criteria measures	☐	

Responsiveness (change over time or differences between groups) **Yes = 1 No = 0 9 = Unable to determine N/A = Not applicable to measure**			
15	Evidence on the changes in scores of the instrument	☐	
16	Longitudinal data that compare a group that is expected to change with a group that is expected to remain stable	☐	
17	Population(s) on which responsiveness has been tested, including the time intervals of assessment, interventions or measures involved in evaluating change, and the populations assumed to be stable	☐	

Acceptability: respondent burden	**Yes = 1 No = 0 9 = Unable to determine N/A = Not applicable to measure**		
18	Information on average and range of the time needed to complete the instrument	☐	
19	Information on reading and comprehension level	☐	
20	Information on any special requirements or requests made of respondent	☐	
21	Level of missing data and refusal rates and the reasons for both	☐	
22	Provide evidence that the instrument places no undue physical or emotional strain on the respondent	☐	This criterion is only applicable to instruments that have excessive amounts of missing data
23	Indicate when or under what circumstances their instrument is not suitable for respondents	☐	

Feasibility: administrative burden	**Yes = 1 No = 0 9 = Unable to determine N/A = Not applicable to measure**		
24	Information about any resources required for administration of the instrument, such as the need for special or specific computer hardware or software to administer, score or analyse the instrument	☐	

FIGURE 3 *Rating tool for appraisal of client–practitioner interaction tests and measures (cont'd)*

	For interviewer-administered instruments		
25	Document the average time and range of time required of a trained interviewer to administer the instrument in face-to-face interviews, by telephone or with computer-assisted formats/applications, as appropriate	☐	
26	Indicate the amount of training and level of education or professional expertise and experience needed by administrative staff to administer, score or otherwise use the instrument	☐	
27	Indicate the availability of scoring instructions	☐	

Cultural and language adaptations or translations		**Yes = 1 No = 0 9 = Unable to determine N/A = Not applicable to measure**	
28	Describe methods to achieve linguistic equivalence. Steps are (a) at least two forward translations; (b) at least one backward translation to the source language that yields a pooled forward translation; (c) a review of translated versions by lay and expert panels with revisions; (d) field tests to provide evidence of comparability	☐	
29	Describe methods to achieve conceptual equivalence. Steps are (a) assessment of content validity of the measure in each cultural or language group to which the measure is to be applied; (b) item response theory and confirmatory factor analysis to evaluate cross-cultural equivalence through examination of differential item functioning	☐	
30	Identify and explain any significant differences between the original and translated versions	☐	
31	Explain how inconsistencies were reconciled	☐	

Precision (degree to which one can assign easily understood meaning to an instrument's quantitative scores) Yes = 1 No = 0 9 = Unable to determine N/A = Not applicable to measure			
32	Description of the rationale for selection of external criteria or populations for purposes of comparison and interpretability of data	☐	
33	Information regarding the ways in which data from the instrument should be (or have been) reported and displayed	☐	
34	Cite meaningful benchmarks (comparative or normative data) to facilitate interpretation of the scores	☐	

FIGURE 3 *Rating tool for appraisal of client–practitioner interaction tests and measures (cont'd)*

Conclusions and recommendations

The hallmark of systematic reviews is an adherence to a set of agreed procedures supported by documentation detailing the decision-making process. Such procedures have been pivotal in developing the rigour for the discipline. In the authors' opinion, there needs to be a similar priority given to the development of client–practitioner interaction measures and a detailed protocol for doing this, and researchers need to establish an agenda to shape up measure research in order for it to emulate the rigour of a systematic approach.

Because the application of systematic review techniques to rating instruments is still very recent, there should be some caution in how the current inventory of measures is used. Although the measures in *Table 14* (p. 28) have been critically appraised and found to have met the minimum standard of psychometric data, if the measure has not been cited at least once in the Web of Science (excluding self-citations), a larger research evidence base may be needed before it can be used with confidence as a research tool. Although this should be part of the process of methodologically rigorous research, this recommendation is being drawn up in an effort to offset the tendency noted earlier for new, underused measures to populate the field of research into client–practitioner interactions.

The reader is also referred to the list of excluded measures (*Table 15*), paying particular attention to the reason for exclusion and the number of times the measure has been cited in the Web of Science. The authors would advise that all measures that have been excluded on the positive evidence on validity rule, but which have been cited at least once in the Web of Science (excluding self-citations) are worthy of consideration.

Some common problems were identified associated with applying systematic appraisal criteria to client–practitioner interaction measures. In the authors' opinion, a tool needs to be developed to assess primary studies associated with measures, akin to tools currently available for appraisal of intervention studies. Such a move would ensure that practitioners and researchers involved in therapeutic activities could have more confidence in the use and selection of client–practitioner interaction measures.

With regard to the field of client–practitioner interactions, it is essential that measures are subject to quality-control procedures. When aggregating results across studies it is necessary not only that the same measures are used, but also that these measures have been proven to meet established, acceptable criteria. The importance of client–practitioner interaction research lies in its ability to determine and delineate the change mechanisms in therapy due to the therapeutic relationship. Using measures that do not meet criteria has implications for hypothesis testing in this field. The use of psychometrically sound measures will ensure that researchers and practitioners will be able to determine reliably what leads to outcome and will enable new models of therapy to be successfully developed.

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Contribution of authors

Jane Cahill (Research Officer) managed the research project and had a primary role in the drafting and critical revision of the manuscript at all stages. Michael Barkham (Professor of Counselling and Clinical Psychology) contributed to the writing and critical reworking of the draft at all stages of development and was responsible for the general supervision of the research group. Gillian Hardy (Professor of Clinical and Occupational Psychology) developed and wrote up the conceptual map. Simon Gilbody (Senior Lecturer in Psychiatry) oversaw methodological aspects of the project including literature searches and application of systematic review techniques. David Richards (Professor of Mental Health Nursing) contributed to the development of the conceptual map and its validation. Peter Bower (Senior Research Fellow) contributed to the development of the conceptual map and its validation. Kerry Audin (Research Officer) co-rated the measures and assisted in the writing and critical revision of the manuscript, including its preparation for submission. Janice Connell (Research Officer) developed the Access Database used in the data extraction of the measures.

Other personnel

Clive Adams (Professor of Mental Health Services Research, University of Leeds) was a grantholder on the project and contributed to the development of the scoping searches. Linda Gask (Reader in Psychiatry and Primary Care, University of Manchester) was a grantholder on the project and provided advice on the interim report. Kate Bonsall (Research Assistant, University of Leeds) data extracted and conducted qualitative data analysis on articles in the preparation of the conceptual map, conducted data extraction on the articles relating to the measures and summarised psychometric information on the measures. Kanan Pandya (Research Assistant, University of Leeds) data extracted and conducted qualitative data analysis on articles in the preparation of the conceptual map. Clare Doherty (Research Assistant, University of Leeds) conducted data extraction on the articles relating to the measures and summarised psychometric information on the measures. Helen Ashworth (Clerical Support, University of Leeds) provided administrative support on the project. Martin Gill (Faculty Team Librarian, University of Leeds) assisted in the design of electronic search strategies. Susan Mottram (Faculty Team Librarian, University of Leeds) assisted in the design of electronic search strategies.

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