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Patient–practitioner agreement: does it matter?

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ABSTRACT

Background. Good communication is a crucial clinical skill. Previous research demonstrated better clinical outcomes when practitioners and patients agree about the nature of patients' core presenting complaints. We investigated the nature of this agreement and its impact on outcome among depressed primary care patients.

Method. We compared presenting problem formulations completed by patients, GPs and therapists in a primary care randomized controlled trial of cognitive-behavioural therapy and non-directive counselling for depression. Participants compiled formulations from a list of 13 potential problems of self-completed questionnaires. Subjects scored at least 14 on the Beck Depression Inventory (BDI) at baseline. Outcome measure for this study included BDI at 4 and 12 months, failure to attend for therapy when referred, dropout from therapy and patient satisfaction.

Results. Among 464 trial patients, 395 received therapy. Patient baseline problem formulations included significantly more items than GPs, who identified significantly more items than therapists. Agreement levels varied according to a range of patient and professional variables. While patients in complete agreement with their therapists about their main problem after assessment had lower average BDI scores at 12 months (9·7 *v.* 12·8, $P=0{\cdot}03$); we found no other significant associations between the extent of agreement and clinical outcome. There were significant (but relatively weak) associations between agreement and aspects of patient satisfaction.

Conclusion. Our results suggest that detailed mutual understanding of the presenting complaints may be less important than agreement that the core problem is psychological, and that referral for psychological therapy is appropriate.

INTRODUCTION

Previous research

It is accepted that communication is a core clinical skill, impacting on patient satisfaction, treatment adherence and outcome (Francis *et al.* 1969; Griffith, 1990; Vermeire *et al.* 2001). The Toronto consensus statement stresses the impact of doctor–patient communication on patient outcomes, calling for enhanced training at all levels. Patient-centred communication seeks to elicit the patient's ideas, concerns and expectations rather than a professional dominated transaction, with a goal of arriving at a shared agenda and understanding (Simpson *et al.* 1991; Vermeire *et al.* 2001). A key feature of this process is a shared understanding of core patient problems. By such means the practitioner and patient agree the basis of the patient's health concerns, the 'problem formulation'. The few studies of this process conducted to date have largely focused on patients presenting to primary care with physical health problems. The researchers have adopted combinations of record searches and semi-structured interviews to assess outcome. Their findings support the view that establishing an agreed agenda is a key therapeutic process

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and correlates with symptom resolution (Starfield *et al.* 1979, 1981; Stewart *et al.* 1979; Greenfield *et al.* 1985; Helman, 1985; Silverman & Draper, 1995). Indeed, Bass *et al.* (1986) found this to be the only independent predictor of symptom outcome among 193 family practice patients presenting common non-respiratory symptoms.

While these findings support the move away from traditional models of doctor-centred therapeutic relationships, there are other barriers to reaching an agreed problem formulation.

The somatization challenge

It is particularly difficult to reach an agreed problem formulation for psychological and social problems. Freidin *et al.* (1980) established that even when the doctor is confident that the core problem is psychological, the patient is still likely to judge their core problem to be physical. The implied stigmatization of mental illness and the impact of 'facultative somatization' may be key factors influencing the variation between patients and professionals in explanatory illness models for such problems (Goldberg & Bridges, 1988). Semantic aspects of professional–patient communication may be important. Doctors tend to use diagnosis related descriptors, a language unfamiliar to most patients. For example, Leff (1978) noted that psychiatrists drew clearer distinctions between describing problems as depression or anxiety than their patients. Kessler *et al.* (1999) suggested that patients who use normalizing attributions for their symptoms are less likely to be recognized as depressed by their GP. Heath (1999) however argued that in such cases, the conclusions of GP and patient about the core problem may be more valid than the 'objective' measure used in Kessler *et al.*'s research.

Time and timing

In the time-pressured primary care environment, practitioners hope to elicit core problems early in the consultation. Beckman & Frankel (1984) found that physicians tend to interrupt patients before they have completed their opening statements. Futhermore, the opening statement did not necessarily contain the key information pointing to the core problem(s). Burack & Carpenter (1983) reported that patients were likely to present physical concerns before psychosocial ones. Practitioners can improve their skills in reaching an agreed problem formulation and agenda. For example, feedback and training improves doctors' recognition of patient perceptions about depression and psychological problems (Yager & Linn, 1981; Liaw *et al.* 1996).

Our research

Talking therapies are increasingly used to deal with psychological problems in primary care, mostly by counsellors or clinical psychologists following referral by the GP (Friedli & King, 1996; Ward *et al.* 2000). Relatively little is known about the patterns of problem formulation among patients and professionals or patient–practitioner agreement relating to patients presenting to primary care with depression and/or anxiety.

We collected data on presenting problem formulations relating to subjects participating in a primary care trial of talking therapies for depression, to investigate patterns of agreement and their relationship to a range of outcomes.

This paper examines the following questions: What is the nature of patient, GP and therapist formulations relating to the patient's presenting problem?; Do patients and professionals agree about the nature of the presenting problem?; What factors predict agreement?; Does agreement between patients and professionals predict outcome?

Based upon previous research, we have developed the following hypotheses concerning this last question.

1 Patients who have a greater agreement with their GP about the basis of their problems (as measured by patient–GP problem formulation agreement) are more likely to comply with the therapy referral (as measured by did not attend any therapy appointments (DNA) rates).

2 Patients who have a greater agreement with their therapist about the basis of their problems (as measured by patient–therapist problem formulation agreement) are more likely to complete their therapy (the outcome measure was premature dropout from therapy before the agreed number of sessions were completed).

3 Greater levels of problem formulation agreement will correlate with improved clinical outcomes (as measured by the Beck Depression Inventory (BDI) and patient satisfaction).

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METHOD

This study was part of a randomized, controlled trial of brief psychotherapy for depression in general practice (Ward *et al*. 2000). Subjects newly presenting to their GP with depression or mixed anxiety and depression (464 total) were referred into the study. Patients were randomly allocated to receive cognitive behaviour therapy (CBT), non-directive counselling (NDC), or usual GP care (197 patients). Those who were unwilling to accept random allocation to these three options were offered the chance to be randomized between CBT or NDC (130 patients), or choose their preferred therapy (137 patients). Patients allocated to a talking therapy were offered 6–12 sessions with the therapist. The rest received care according to their GP's usual approach. CBT was provided by experienced clinical psychologists with specialist CBT training. NDC was provided by fully trained and experienced counsellors. All therapists received regular supervision. A researcher assessed subjects within a few days of referral, and at 4 and 12 months, using questionnaires focusing on clinical, social economic and satisfaction outcomes. The main outcome measure was the BDI (Beck & Steer, 1987).

For the purposes of this study we measured agreement by comparing problem formulation questionnaires independently completed by the GP, patient and therapist. These listed 13 problem descriptors, derived from those recommended by Corney & Curran (1993). We asked respondents to tick all those that applied, underlining the main problem (or problems if they identified more than one). There was no attempt to rank the importance of other problems. This questionnaire was piloted among doctors, therapists, and patients with mental health problems at a practice not used for the main trial.

Doctors and therapists completed this form at the end of the index consultation, patients did so during their baseline, 4 and 12-month assessments (therapists also completed one at treatment end). The study reported here refers to baseline/index consultation formulations.

For the purpose of some analyses, the 13 problem descriptors were grouped into five overarching themes. These were developed and revised by consensus through discussions with mental health researchers, professionals and patients (Table 1). This was done for two reasons. We were concerned that relatively minor semantic distinctions between terms (Leff, 1978) might obscure agreement that the main problem lay within commonly understood themes (a concern exacerbated by including an agreement measure involving three parties). Secondly, there were too few trial participants to justify statistical analyses of agreement about main problem formulations across all 13 categories.

Table 1. *Initial problem descriptors, and their subsequent theme grouping for analysis of agreement*

Description on questionnaire	Theme for analysis
Depression/feeling low or sad/weepy	One
Anxiety/nerves	One
Stress	One
Physical illness	Five
Work related problem	Two
Unemployment/redundancy	Two
Social problems e.g. housing, financial	Two
Relationship difficulties	Four
Family problems	Four
Problems from childhood	Three
Bereavement or loss	Three
Confusion about life or the future	Three
A feeling of going mad	One
Other (please specify)	Other (excluded)

Measurements of agreement

To investigate the link between treatment outcome and problem formulation agreement, we developed two types of agreement variable.

(*a*) To allow for different degrees and types of agreement, an 'individual problem agreement score' was computed. For each of the 13 potential problems listed on the formulation questionnaires, a weight was allocated according to the level and type of agreement between pairs of agencies (Table 2). A score for each patient was computed by simple aggregation of the 13 item weights (maximum score = 26, minimum score = −13). For ease of interpretation, these raw scores were transformed to percentage scores (minimum = 0, maximum = 100). Patients in therapy groups had three 'individual problem agreement' scores (patient–GP, patient–therapist, therapist–GP), those seeing only the GP had one score (patient–GP only).

(*b*) While parties may not agree about the detail of a full formulation, agreement about the main issue might be a realistic goal for the index

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Table 2. '*Individual problem agreement*' *measure. Weights given to agreement by two agencies for each of* 13 *descriptors listed on questionnaires*

Agency 1	Agency 2	Weight allocated
Identified as main problem	Identified as main problem	2
Identified as problem (not main)	Identified as problem (not main)	2
Not identified as problem	Not identified as problem	2
Identified as main problem	Identified as problem (not main)	1
Identified as problem (not main)	Identified as main problem	1
Identified as problem (not main)	No problem identified	0
No problem identified	Identified as problem (not main)	0
Identified as main problem	No problem identified	−1
No problem identified	Identified as main problem	−1

consultation. We constructed a dichotomous variable for 'main problem agreement' for each patient. This related to the theme(s) containing the main problem as formulated by the parties. This was computed for all patients by comparing GP and patient formulations. For those seeing a therapist, additional separate dichotomous variables were computed for patient agreement both with their GP and therapist, and between GPs and therapists (paired main problem agreement); and for all three parties' formulations (three-way main problem agreement). Although GPs, patients and therapists were asked to underline what they considered to be the patient's main problem, there were some missing data. Forty-seven of the 459 (10·2%) patients at baseline failed to underline a problem descriptor. Corresponding proportions were 32% (118/364) for therapist baseline evaluation forms and 36% (166/464) for GPs. Two *post-hoc* computations were conducted in order to increase the number of indicated main problems for each identifying agency. If all the identified problems were within one theme, we identified that theme as containing the main problem for the purpose of analysis. For the small number where only one problem descriptor was ticked, this was classified as the main problem. These computations identified missing main problems in three patient, 10 therapist and 14 GP completed questionnaires.

Outcomes measured

Outcomes were assessed in a range of ways: BDI score as measure of 'caseness' (defined as >13 at the 4- and 12-month follow-ups); failure to attend any therapy sessions (DNA); failure to complete therapy as planned (dropout); and satisfaction with treatment as assessed by items in the Event Recall Form (Friedli *et al.* 1997).

Statistical analyses

Exploratory analyses confirmed that all the main continuous variables in the study (BDI scores, individual problem agreement scores, and number of problems identified) approximated normal distributions, and parametric statistical analyses were thus considered appropriate.

The independent-samples t test was used to explore differences in individual problem agreement scores between binary outcome-groups (e.g. BDI cases and non-cases). To examine the relationship between outcome and categorical variables (e.g. main problem agreement: complete *v.* incomplete) the χ^2 test was conducted. Associations between individual problem agreement scores and ordinal variables (e.g. items on the Event Recall Form) were examined using the Spearman rank correlation coefficient. For estimating correlations between continuous variables (e.g. BDI scores and number of problems identified) Pearson's r was used.

When differences in the distribution of an ordinal variable (e.g. an Event Recall Form item response) between two subgroups (e.g. main problem agreement) were of interest, the Mann–Whitney U statistic and its significance level are reported. When considering differences in a dichotomous variable (e.g. three-way main problem agreement) for the same group of patients, Cochran's Q test was conducted.

In addition to the univariate analyses of relationship between agreement and outcome, multivariate analyses were undertaken to explore the effects of other independent variables upon outcome. A series of logistic regression models were developed to investigate the relationships between relevant binary outcomes (e.g. BDI case or non-case at 12 months) and selected co-variates. For all models, the independent co-variates

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were: gender, age, whether randomized or in a preference group, baseline BDI score, number of primary care consultations in previous 12 months, NDC or CBT intervention, the number of problems identified by each of the three agencies (patient, GP and therapist), and the 'main problem agreement' variables (pairs and three-way).

For the regression model exploring the effects of variables upon the probability of 'overall agreement at baseline' (0 = non total, 1 = total agreement), this variable was excluded from the above covariate list and became the dependent binary variable. Where significant effects were found after regression, we report the odds ratio (OR) and its 95% confidence interval.

RESULTS

In addition to reporting statistically significant results, we have included important negative results that relate to conclusions from related research by others, or our hypotheses. The measures of agreement used in the following analyses include both the 'individual problem agreement score' and 'main problem agreement'. We address the questions and hypotheses highlighted in the introduction in turn.

Subject characteristics

The 464 subjects' ages ranged from 18–79 (mean = 37, S.D. = 12), and 347 (75%) were women. At baseline assessment, 159 subjects (34%) had a BDI score of 14–22, and 305 (66%) over 22. Among the sample, 69 (15%) received usual GP care, 215 (46%) were referred for CBT and 180 (39%) non-directive counselling. There were no significant demographic group differences between the three treatment arms. Response rates at follow-up were 89% at 4, and 81% at 12 months. Therapist problem formulations were returned for 92% of subjects referred to a therapist. The clinical results of the trial indicated that both CBT and NDC had significantly better outcomes at 4 months compared to usual GP care (control group). However, by 12 months, control group patients had made similar gains. There was no evidence of significant differences in treatment outcomes between patients randomized or choosing their preferred therapy (King *et al.* 2000; Ward *et al.* 2000).

Table 3. *Identification of main problems within the five 'theme' categories, by GPs, patients and therapists*

Identifying agency	Patients identified as having main problem %	Base number of patients
Theme One		
GP at baseline	74·7	297
Patient at baseline	63·8	412
Therapist at baseline	67·5	237
Theme Two		
GP at baseline	10·1	297
Patient at baseline	9·5	412
Therapist at baseline	6·3	237
Theme Three		
GP at baseline	17·5	297
Patient at baseline	18·9	412
Therapist at baseline	27·4	237
Theme Four		
GP at baseline	21·2	297
Patient at baseline	17·5	412
Therapist at baseline	25·7	237
Theme Five		
GP at baseline	1·7	297
Patient at baseline	2·4	412
Therapist at baseline	1·3	237

What is the nature of patient, GP and therapist formulations concerning the patient's presenting problem?

The mean number of problems identified per subject at baseline differed significantly between the parties. Patients identified a mean of 6·1 different problems (95% CI 5·9–6·3), GPs 4·9 (95% CI 4·7–5·1) and therapists 4·4 (95% CI 4·2–4·6). There were no significant differences between the mean numbers identified by CBT and NDC therapists. Baseline BDI scores were significantly positively correlated with the number of presenting problems identified by patients ($r = 0{\cdot}31$, $P < 0{\cdot}001$) and therapists ($r = 0{\cdot}15$, $P < 0{\cdot}01$). No significant relationship was found between patient BDI scores and the number of presenting problems identified by GPs.

Table 3 summarizes how the three agencies categorized the main baseline problem within the five themes overall. Therapists were significantly more likely to identify this as within Theme Three (Cochran's $Q = 7{\cdot}7$, df = 2, $P < 0{\cdot}05$), while a significantly greater proportion of GP assessments identified the main problem within Theme One (Cochran's $Q = 6{\cdot}03$, df = 2, $P < 0{\cdot}05$). There were no statistically significant differences found

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between the three agencies in the identification of a main problem within any of the other themes.

Differences were also found between how cognitive behaviour therapists and non-directive counsellors categorized patient problems. The main difference involved the identification of the main problem in Themes One, Three and Four. Cognitive behaviour therapists considered the main problem to be within Theme One for 8·72% of their patients, within Theme Three in 3·4% of cases, and within Theme Four for 6·8%. The corresponding figures for non-directive counsellors were 28·9%, 35·5% and 27·6% ($\chi^2 = 67·9$, df = 2, $P < 0·001$).

GPs were significantly more likely to identify the main problem as lying within Theme One if the baseline BDI score was $\geqslant 23$ (categorized as more severe) compared to those with a baseline BDI between 14 and 22 (55% *v.* 42% in each BDI group for whom main problem indicated within Theme One; $\chi^2 = 5·7$, $P = 0·014$). This was not the case for either therapists (49% *v.* 48%, $P = 0·9$) or patients (61% *v.* 56%, $P = 0·37$).

Do patients and professionals agree about the nature of these presenting problems?

Altogether 339 patients referred for therapy had a baseline formulation completed by three parties. Among these there was complete agreement about the theme of the main problem for 45 (13%) patients. Considering pairs, there was complete main problem agreement between 84 (23%) patients and therapists, and 103 (28%) therapist–GP formulations. Among the whole sample, there was complete main problem agreement between 152 (33%) patients and their GPs.

What factors predict agreement?

As described in the Method section above, a logistic regression model was compiled to explore factors possibly related to baseline three-way 'main problem agreement'. The covariates (see list in Method section) and the dependent variable entered into the model produced a satisfactory 'goodness of fit' ($P < 0·01$).

Implementation of the model found that there was significantly more likelihood of total agreement for female patients (OR = 3·8, 95% CI 1·2–11·7); and with clinical psychologists compared to counsellors (OR = 6·35, 95% CI 2·6–15·5).

Does agreement between patients and professionals predict outcome?

'*Individual problem agreement scores*' and patient outcomes

We compared problem formulations by patients and professionals using the scoring system described in the methods section above. This allocated a score to reflect relative agreement/disagreement about main and subsidiary problems.

Hypothesis 1: does patient–GP agreement predict compliance with therapy referral?

Mean 'patient–GP' agreement scores were compared between those patients who failed to attend their initial therapy session (DNA, $N = 31$) and those who attended as requested (attender, $N = 358$). There were no differences in mean scores between the groups attender, 79·2 *v.* DNA, 79·1; $t = 0·04$, df = 387, $P > 0·05$).

Hypothesis 2: does patient–therapist agreement predict therapy completion?

No significant associations were found between any of the two party agreement scores and dropout from therapy (patient–therapist, $t = 0·18$, $P = 0·18$; patient–GP, $t = 1·4$, $P = 0·16$; therapist–GP, $t = -0·82$, $P = 0·41$).

Hypothesis 3: does agreement predict clinical outcome?

No significant associations were found between any of the two-party agreement scores (patient–GP, patient–therapist, therapist–GP) and BDI caseness at 4 and 12 months (Table 4).

Spearman rank correlation tests were conducted to explore associations between the 'individual problem agreement scores' and the ERF item and total scores (at 4 and 12-month follow-up). Baseline patient–GP individual problem agreement scores were not significantly correlated with any of the satisfaction items or overall score at either 4 or 12-month follow-up. Statistically significant links were found between 'feeling less confused' and the extent of patient–therapist and therapist–GP agreement at both 4 and 12 months (rank coefficients $-0·11$ to $-0·17$). A relatively greater agreement score between patients and their therapists was also associated at 4-month follow-up ($P < 0·05$) with being 'generally more satisfied' (rank coefficient 0·13); 'finding ways of copying' (rank coefficient 0·12) and being less 'bothered with unpleasant thoughts' (rank coefficient $-0·12$). At 1 year, greater patient–therapist agreement

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Table 4. *Mean 'individual problem' agreement scores for BDI cases and non-cases at 4 months and 12 months*

BDI	Patient–GP Mean (95% CI)	Patient–therapist Mean (95% CI)	Therapist–GP Mean (95% CI)
4 months			
Case ($N=150$)	78·5 (76·7–80·3)	75·6 (74·0–77·3)	79·3 (77·7–80·9)
Non-case ($N=178$)	79·5 (78·0–81·1)	77·2 (75·8–78·6)	80·1 (78·5–81·7)
12 months			
Case ($N=121$)	78·2 (76·3–80·0)	76·0 (74·3–77·8)	79·8 (78·0–81·7)
Non-case ($N=207$)	79·6 (78·1–81·1)	76·8 (75·4–78·1)	79·7 (78·3–81·1)

Table 5. *Association between baseline 'three party main problem agreement' and BDI outcomes or failing to complete therapy*

	Baseline			
BDI caseness	Full agreement	Incomplete agreement	χ^2	P
Non-cases at 4 months	28/43 (65%)	66/116 (57%)	0·88	0·35
Non-cases at 12 months	33/43 (77%)	75/116 (65%)	2·1	0·15
Dropout*	5/43 (12%)	18/116 (16%)	0·38	0·54

	Baseline				
Mean BDI score	Full agreement	Incomplete agreement	t	(df)	P
At 4 months	11·8	13·2	0·73	(157)	0·47
At 12 months	10·2	11·7	0·84	(157)	0·41

* Failing to complete therapy as agreed.

was significantly associated ($P<0·05$) with 'feeling less troubled' (rank coefficient 0·11) and feeling less 'bored' (rank coefficient −0·11). No other significant associations were found, and even those identified above are relatively weak.

'*Main problem agreement*' *and patient outcomes*

Univariate analyses were conducted to investigate the relationship between the baseline 'main problem agreement' dichotomous variable and outcomes relating to our hypotheses.

Hypothesis 1: does patient–GP agreement predict compliance with therapy referral?

No significant relationship was found between baseline patient–GP 'main problem agreement' and patients not attending the first therapy session.

Hypothesis 2: does patient–therapist agreement predict therapy completion?

No significant relationship was found between baseline three way 'main problem agreement' and the risk of patients dropping out before completing therapy (Table 5), or between patient–GP, therapist–patient, or therapist–GP baseline 'main problem agreement' and dropping out of therapy.

Hypothesis 3: does agreement predict clinical outcome?

No statistically significant relationships were identified between three party 'main problem agreement' (Table 5) or any of the paired 'main problem agreement' variables, and either BDI score or caseness at 4 or 12 months, with one exception. Patients with complete baseline main problem agreement with their therapist had significantly lower BDI scores at 12-month follow-up (mean score 9·7 *v.* 12·8, $P=0·03$).

Associations between the baseline 'main problem agreement' variable and ERF scores (total and item) at 4 and 12 months were investigated. At 4 months, patients in the total agreement group were significantly less likely to report 'having unpleasant thoughts' (Mann–Whitney $Z=2·38$, $P<0·05$), more likely to have 'ways of coping' (Mann–Whitney $Z=2·09$, $P<0·05$) and to be 'less troubled' (Mann–Whitney $Z=2·40$, $P<0·05$). However, at 12 months there were no

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significant differences between any of the ERF item scores and baseline main problem agreement.

A number of logistic regression models, with defined covariates of baseline 'main problem agreement' (see list in Method section above), were constructed to discover significant factors associated with relevant outcomes (BDI caseness at 4- and 12-month follow-up, and therapy dropout). Baseline BDI score predicted BDI caseness at 4 months (OR = 1·08, 95% CI 1·03–1·13) but not at 12 months. Men were more likely to drop out of therapy before the agreed time than women (OR = 2·86, 95% CI 1·05–7·69). A one unit increase in the number of consultations before baseline was significantly associated with 'BDI caseness' at both 4 (OR = 1·12, 95% CI 1·02–1·23) and 12-month follow-up (OR = 1·13, 95% CI 1·03–1·23). Replacing the three party overall 'main problem agreement' variable with the three pairwise agreement variables in the regression models produced similar results; except that in the pairwise regressions, there was no evidence of any independent effects upon the likelihood of dropping out of therapy.

DISCUSSION

Previous research has suggested that the level of agreement between patients and professionals about the nature of presenting problems influences patient outcomes. Our study suggests that patients with depression described the nature of their problems in different terms to the professionals they consulted. The level of agreement varied according to a range of patient and professional variables, only two of which (patient gender and therapist type) were statistically significant. Agreement between patients and professionals (or between professionals) on the nature of these problems had no impact on compliance with psychotherapy in general practice or its clinical outcome, with one exception. Patients in full agreement with their therapists at baseline about the nature of their main presenting problem had significantly lower BDI scores at 12-month follow-up. There were also a number of significant but relatively weak associations between a number of patient satisfaction items and both main problem and overall formulation agreement.

Methodological issues: strengths and weaknesses

This study included more patients than previous published studies in the field and had relatively high follow-up rates. Although there were more women, the relative proportion was in line with recent community surveys of depression prevalence (Ayuso-Mateos *et al.* 2001). Subjects were recruited for a trial of talking therapies for depression, and thus we could have excluded patients with fundamental disagreement about there being a psychological component to their problems. While this may relatively reduce the impact of disagreement on outcome, pragmatically one cannot ethically treat a patient for a psychological problem in primary care when they fundamentally disagree that it is a factor. Subjects were recruited and assessed at the time of potential referral for a talking therapy. Although patients recently treated for depression were excluded, the design was unable to assess the impact of previous clinical contacts. Other researchers have not suggested that preconceptions and historical consultation experience influences outcome however.

Some respondents failed to identify the main problem in their lists, however this only affected the 'main problem agreement' analyses. Other studies on the effects of agreement on outcome have relied on patient self-reports and record searches. Bass *et al.* (1986) used telephone follow-up interviews 1 and 3 months after the index visit, plus medical record searches. Starfield *et al.* (1979, 1981) and Stewart *et al.* (1979) used post-visit interviews and records. Our study incorporated four measures of outcome, two based on self-report questionnaires (BDI and ERF) and two on attendance for treatment. The BDI is well validated as a measure of severity and change in depression in this setting. The problem list has face validity, and reflects professional classification. However, it does impose some restrictions compared to interview or free text methods of data collection. Our study was strengthened by the inclusion of relatively long-term outcome data and measure of compliance (failure to attend and dropout).

The impact of agreement on outcome may be modest and subtle. Recent trials on patients with depression and anxiety have failed to demonstrate overwhelmingly different patient

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outcomes between treatments (Friedli *et al.* 1997; Ward *et al.* 2000). We re-categorized problem descriptions into themes to raise the relative power of the analyses. We did identify some relatively small patient satisfaction effects, which suggest that the study was sufficiently high powered. We included a variety of ways of assessing agreement in our analyses, looking at overall formulation patterns in addition to the 'main' problem(s) alone. We also looked at agreement between all three parties as well as pairs. Despite this, our methodology may not have been sensitive enough to pick up the therapeutic effects of improved communication. We anticipated that the crucial process in the patient–GP negotiation would be the influence of an agreed problem formulation on compliance with the initial referral for therapy, but that for those attending therapy, patient–therapist agreement would be likely to have most impact on compliance, outcome and satisfaction. The only significant association we found among these was a reduction in BDI scores (but not caseness), at 1-year follow-up, for patients in complete agreement with their therapists about the nature of their main problem(s).

We had to rely on patient formulations after referral, but before first therapy appointment; but it is unlikely that this relatively short delay would have major effects on patient problem formulations. We have not analysed the 4- and 12-month follow-up formulations in this paper, and their link with outcome, but intend to do so in a future publication.

Despite these drawbacks, we believe this is the most sophisticated method used to date. Rather than measuring patient and professional symptom perceptions, our outcomes were arguably more objective. Our greater numbers and our focus on patients presenting with depression rather than physical illness, may also partly explain the differences between our results and those of previous studies.

Patterns of agreement

This research demonstrated that patients identified a greater range of themes to describe their problems than professionals. This may indicate that their personal experience facilitates a more in-depth and complex understanding and interpretation of meaning. However, as Leff (1978) suggested, patients may semantically differentiate less between for example, depression, anxiety and stress, and thus use more than one descriptor when the professional may be 'more precise' and 'diagnostic'. Thus, the patient's approach to interpretation and description may reflect their difficulty in formulating problems within a professionalized taxonomy. Our results suggest that professionals and patients differed in their perception of the main baseline problem within certain themes, but no clear distinctions emerged. It is not surprising that cognitive behaviour therapists and non-directive counsellors differed in their interpretation of the main problems. Our findings resonate with their respective therapeutic approaches and emphases. Furthermore, this difference suggests that the formulation categories and themes developed for this study have some validity for therapists. It is interesting to note that there was a significant correlation between the number of problems identified by patients and therapists, and the severity of the depression. This relationship was not found with GP problem formulations, despite their tendency to identify more problems overall than therapists. In contrast the severity of depression influenced what GPs considered the main problem to be, but did not significantly alter the thematic patterns of therapist or patient formulations. More research is needed to investigate the possible clinical significance of these findings.

Relationship to outcome

Only patient–therapist main problem agreement had any significant impact on patient outcome, but the evidence for this was mixed, influencing BDI score but not caseness, and only at 12, not 4, months.

Good communication skills in primary care should normally include an agreement about presenting complaints. However, our study indicates that the detail of this agreement is less important than other issues in the process or outcome of general practice based psychotherapy therapy for patients with depression and anxiety. Grace & Armstrong (1986) described low levels of agreement between GPs, patients and specialists about the reason for referral, and stressed the importance of clarity. It may be that in cases of depression, it is important to ensure that all parties agree that referral is appropriate, and that the underlying focus for management is

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psychological and social rather than physical. Previous research has suggested that this may also be an important cause of disagreement (Freidin *et al*. 1980). There were very few participants in this study for whom the main problem was felt to be physical rather than psychological and/or social, which precluded statistically valid subgroup analysis. Furthermore, it is likely that the process of referring patients into a therapy trial will have reduced the proportion of somatizing patients (who may be more likely to receive different formulations from the professionals). We included all patients receiving therapy in this study, whether randomized or expressing a strong preference for a particular treatment. The analyses on the main trial indicated that there were no significant differences in outcome between the randomized and patient preference arms (King *et al*. 2000).

Research suggests that patient compliance (and hence outcome) is influenced by the quality of the therapeutic relationship (professional empathy and communication) and the extent to which the patient's agenda and health beliefs are acknowledged (Vermeire *et al*. 2001). This study has attempted to use a pragmatic marker of these qualities during the index consultation – the extent of agreement about the baseline problem formulation. The results suggest that the effect of agreement on outcome is at best subtle.

One can speculate about how therapeutic alliance and other associated factors may influence the outcome for depressed and anxious patients in primary care, as it has been suggested it does for other common problems by previous researchers. Our results suggest that the key communication issue may lie outwith our study, namely the process whereby the decision to refer for therapy is reached. In this study the referral decision preceded subject recruitment. These questions require specific research into the therapeutic process, or an acceptance of the extrapolation of findings from research into psychotherapeutic processes (Elliott & Wexler, 1994; Wilson & Barkham, 1994; Stiles *et al*. 1995).

Conclusion

Patients with depression and anxiety describe more problems at presentation than their practitioners and there are differences between the types of problems described between patients, GPs, counsellors and cognitive behaviour therapists. However, we have failed to confirm a strong link between patient outcome and the extent of agreement between professionals and their patients about the formulation of the baseline presenting problem. It is unclear whether this reflects a more robust measure of outcome than used in previous studies, larger sample sizes, or differences between populations. Detailed agreement about the nature of the presenting and underlying problem may be much less important than concordance between patient and doctor that there is a psychosocial component and/or that referral for brief psychotherapy is a suitable response.

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