

Research paper

Developing therapeutic rapport: a training validation study

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ABSTRACT

Background Patient-centred consulting is at the heart of modern medicine, and training programmes now routinely highlight a range of communication skills that enhance the doctor–patient relationship. The present pilot study focuses on the central role played by empathic skills in developing rapport and shared understanding, as captured in a new model developed by the authors. The specific aim of the study was to evaluate the potential of a short-term training programme using this model to improve rapport-related behaviour in general practitioner (GP) trainees.

Methods In a quasi-experimental study, 37 GP trainees from schemes in central England (the training group) participated in a training programme based around a new model of therapeutic rapport, with pre- and post-training analysis of relevant knowledge-based, affective and behavioural outcomes. A control group of ten GP trainees, from schemes in a comparable UK medical deanery, took no part in the training programme but were involved in all pre- and post-training analyses.

Results The training group demonstrated significant increases in rapport-related knowledge and all three affective dimensions (attitudes, confidence and motivation); there was a similar finding in terms of ‘positive engagement’ and all expert-rated aspects of rapport-related behaviours. The control group showed no comparable improvement in any area, and recorded a significant drop in demonstration of positive engagement behaviours.

Conclusions The significant improvement in rapport-related knowledge, attitudes and behaviour after training, and the lack of any comparable change in the control group, gives some support to the suggestion that the module (and the model that underpinned it) may have triggered such an impact independent of ongoing experience or other educational activities.

Keywords: empathy, communication skills, patient-centred, rapport, training, validation

How this fits in with quality in primary care

What do we know?

The quality of shared understanding between doctor and patient is central to the effectiveness of the consultation. The doctor’s empathy plays a significant role in the search for such understanding.

What does this paper add?

Rapport-building skills can be developed through training that targets both affective factors (e.g. the empathic *desire* to understand) and cognitive factors (e.g. the empathic *skills* to establish understanding). We suggest specific strategies for constructing a training programme in rapport building. The transferability of such training to related fields such as nursing might be considered.

Introduction

An effective doctor–patient relationship centres on the quality of shared understanding about the nature of the patient’s problem and the patient’s *perspective* on their problem.^{1,2} The fuller the understanding, the greater the likelihood of an accurate and safe assessment of the problem.^{3,4}

Accurate understanding of presented symptoms is the benchmark of medicine, the primary diagnostic goal – whether that symptomatic pattern is biological, psychological or social at root. Underpinning the now predominant ‘patient-centred’ approach to consulting, however, is the conviction that an equivalent understanding of the patient’s *experience* of their symptoms, their interpretation of what is happening to them, should be seen as a parallel diagnostic goal.⁵

Empathy, the understanding of how a patient ‘feels’, has often been seen as an intuitive, evolved quality, defined by a complex mix of nature and nurture and – by extension – therefore beyond skill.^{6,7} Importantly, this also implies a quality beyond training: you either ‘have it’ or you don’t. Other research into empathy has highlighted the fact that the doctor’s effectiveness in establishing a constructive and thus therapeutic rapport with a patient is largely determined by the accuracy of his or her *cognitive* assessment of the patient’s thoughts and feelings about their symptoms.^{8,9} In other words, it is not so much how one specifically ‘feels’ in relation

to the patient experience, but rather how clearly one recognises that experience.

The present study follows previous research by the authors into the nature of empathy, and the dynamic journey undertaken by a doctor in search of empathic accuracy or understanding.¹⁰ Captured in an iterative model, the research suggests such accuracy involves both the desire and skill to understand the patient, along with some core verbal and non-verbal skills which facilitate this empathic journey. The level of desire is described within an individual’s ‘empathic motivation’, which in turn generates higher or lower levels of receptiveness to the patient (‘empathic attention’); the cognitive skill in actually finding clues and making sense of them is described within ‘empathic skill’. Throughout this journey, verbal and non-verbal communication skills are employed to elicit the patient story and then test the accuracy of one’s evolving perceptions.

The goal of this journey is to establish and maintain a shared understanding (‘empathic understanding’) regarding the patient’s perspective on their problem, and to use this to inform joint decision making about how to manage the problem itself. As such this constructive goal is best described as *therapeutic rapport* – which is used as the summary goal through the training module described in this study (see Figure 1).

The implication of such a skill-based model is clearly that empathy, having a skill component, is not innate but can be learnt – and is therefore accessible to

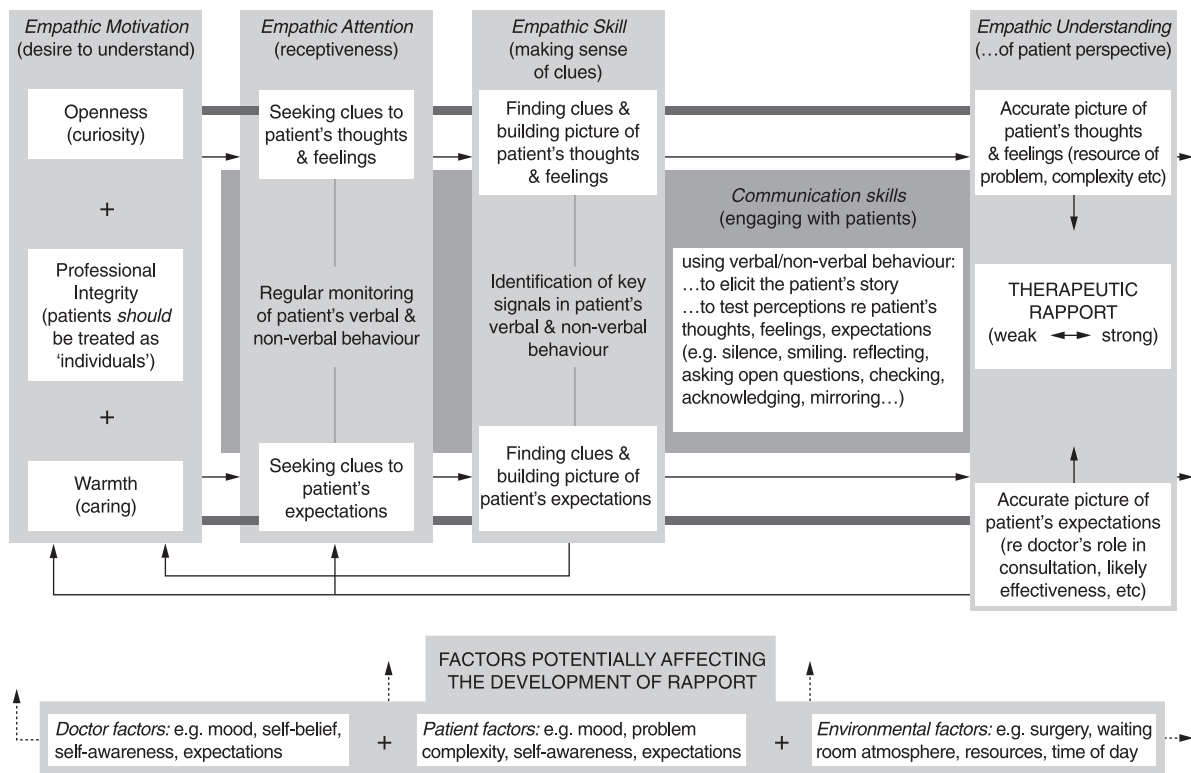


Figure 1 Developing therapeutic rapport in the consultation (via empathic search for understanding of patient's dominant thoughts, feelings and expectations)

some degree by all. The present study sought to test this hypothesis through evaluation of a competency-based training module centred on the new model of empathy, and in particular the skills embedded within it. This builds on the approach and findings of earlier comparable research.¹¹

In a rigorous and systematic validation unusual in comparable empathy research, the relevant consulting knowledge, attitudes, confidence and behaviour of the general practitioner (GP) trainees undertaking the module was assessed prior to and immediately after the delivery of the training sessions, while the same 'before' and 'after' assessment was made on a control group not exposed to the module.

The criteria for evaluation drew from Kirkpatrick's model for assessing training effectiveness,¹² thus measurement included: trainee reactions (level 1), the shift in empathy-related attitudes and confidence (level 2), the shift in knowledge (level 2), and finally the shift in actual rapport-related performance on the job (level 3).

Methods

Content of training programme

The training module involved a three-phase process:

- *Phase 1* (full day): key features included exploration of the therapeutic model, practice at identifying and expressing verbal and non-verbal signals, brief individual consultations with trained simulated patients followed by group-based reflection, and self-assessment of development needs
- *Phase 2* (three months): using self-assessment above as a benchmark, trainees monitored their motivation and skills development via a reflective diary in practice
- *Phase 3* (half day): a review of first principles and group-based exploration of recent practice experience, via individual examples of challenging empathy-related consultations.

Design of evaluation study and participants

A quasi-experimental study was used to assess trainee GPs before and after undertaking an empathic training programme, compared over the same time period with a non-training control group of similar trainees. Complete data for analysis from the experimental training group were gathered from 37 GP trainees (67% of those invited to do so) from the central England region. Complete data from the control group were gathered from ten GP trainees (36% of those invited to do so) from a separate southern part of the UK. All participants were in their first six-month training post in general practice.

Evaluation procedure

To assess changes in attitude, confidence, motivation and knowledge in relation to therapeutic rapport, a questionnaire was designed and administered to the training group four times: immediately before phase 1 (T1); immediately after phase 1 (T2); immediately before phase 3 (T3) and immediately after phase 3 (T4). In order to assess workplace behaviour change, training participants were also asked to supply a videotape with 4–6 consultations they had conducted at T1 and T4.

Registrars in the control group were asked to complete the same questionnaire and supply a videotape with 4–6 consultations at T1 and T4 only (see Table 1).

Outcome measures

Level 1 evaluation: reactions

Following delivery of the training modules, registrars were asked to comment (using a 1–5 Likert scale) on (a) how much they had *enjoyed* the sessions, (b) how *useful* they thought the training would be in future, and (c) how keen they were to *apply* what they had learnt.

It is standard training evaluation practice to measure initial reactions as a benchmark for comparing with

Table 1 Module evaluation (timings)

		Pre-training Late August	Phase 1 September	Phase 2 Oct–Dec	Phase 3 Early Dec	Post-training Mid-Dec
Intervention	Rapport:	Video 1	Q1 and Q2*	Log diary	Q3 and Q4	Video 2
Control	Rapport:	Video 1 and Q1				Video 2 and Q2

Q1, Q2, Q3 and Q4 = the same questionnaire presented at four different time points

more objective later measures,¹² and this also allows comparison with other training studies. (NB Fuller details of the items, scaling etc are available from the authors.)

Level 2 evaluation: affective learning outcomes

All items involving attitude, confidence and motivation were answered on a five-point Likert scale. Three affective outcome scales were created from the questionnaire items: *attitude to rapport* (six items, average Cronbach's alpha reliability T1–T4 = 0.69), *confidence about developing rapport* (four items, alpha T1–T4 = 0.66), *motivation to develop rapport* (two items, average alpha T1–T4 = 0.66). Although recommended reliabilities should be > 0.70, with newly developed scales values >0.60 are acceptable.¹³

Level 2 evaluation: knowledge-based learning outcomes

An objective measure of *knowledge of rapport* was assessed using 12 questions in the survey (a mix of Likert and open-ended items), generating a total score out of 21.

Level 3 evaluation: workplace rapport-related outcomes

To evaluate changes in on-the-job demonstration of rapport-related behaviours central to the new model, registrars were asked to submit two separate videotapes of 4–6 consultations: one immediately before phase 1 (T1), the other immediately after phase 3 (T4).

To evaluate relevant behaviours in the consultation, a behavioural coding frame was established, derived from the research framework and model of therapeutic rapport.¹⁰ The frame comprised 22 different types of verbal and non-verbal rapport-related behaviours. Independent coding of incidence of behaviours by two researchers produced a high level of agreement (average correlation of 0.85, $P < 0.01$).

Exploratory principal components factor analysis with varimax rotation (using SPSS) of the 22 behaviours combined with conceptual groupings of indicators produced one major factor, *positive engagement* behaviour. This consisted of 11 indicators covering both verbal (reflecting – directly echoing words and using supportive sounds, checking – open and closed non-clinical questions, reassuring the patient, positively reframing the patient's situation and *not* interrupting) and non-verbal behaviours (smiling, soft vocal tone, varied vocal intonation and nodding). The reliability of the measure was acceptable (alpha T1 = 0.60, alpha T4 = 0.70). The 11 indicators of positive engagement echo Bensing's conception of affective behaviour.¹⁴

To gather expert ratings of rapport behaviour, two experienced GPs, familiar with the language of rapport

defined within the new model, rated the quality of rapport-related behaviour in a representative range of 48 videotaped consultations. Using a specially created seven-item questionnaire, the experts rated aspects of *empathic motivation* (one item), *empathic skills* (one item), *communication skills* (four items, Cohen's kappa for the two raters over time at least 0.8) and the *overall quality of rapport established* (one item) after four minutes of each consultation. Each item was scored on a four-point Likert scale (from strongly disagree to strongly agree). The anonymised consultation tapes were randomly sequenced for analysis, ensuring that experts were (i) unaware in which region each registrar was based, and (ii) unaware whether individual tapes were of consultations recorded prior to or after the modules.

The average correlation between the experts' ratings of behaviours in the same consultations was 0.70, which represents a sufficient level of agreement.¹³ Ratings of the various aspects of rapport-related behaviour were then analysed at T1 and T4 for both groups.

Scores within each section of the questionnaires (i.e. attitude, confidence, motivation and knowledge) and the behavioural ratings were all converted to percentages of the relevant total score. This allowed a comparable measure of the strength of each factor, rather than trying to compare the means of factors with different maximum scores.

In order to test for significant differences in outcomes over time and between groups, and given sample sizes, two-tailed *t* tests were used. Correlational analyses were conducted to assess the strength of relationships between expert ratings and positive engagement behaviours.

Results

Level 1 evaluation: reactions

The reactions of the training group to the modules were all fairly positive, with relatively high scores for *enjoyment* (mean score = 4.1, or 82% of the maximum score between 1 and 5), *usefulness* (mean = 4.5, or 90%) and *application intention* (mean 4.5, or 90%).

Table 2 shows the mean scores over time on the affective, knowledge and behavioural outcomes for both training and control groups, and statistical differences between time points. All scores have been converted to percentage values of the original maximum score in order to standardise comparison between different indices.

Table 2 Mean scores on affective, knowledge and workplace behavioural outcomes over time for training and control groups and results of *t*-tests over time

	<i>n</i>	T1 (pre-phase 1)	T2 (post-phase 1)	T3 (pre-phase 3)	T4 (post-phase 3)	Significant differences over time within group
Affective outcomes						
Attitude to rapport						
training group	37	78	82	79	81	T1–T2 ^c , T1–T4 ^a , T2–T3 ^a
control group	10	81			79	Non-significant
Confidence about developing rapport						
training group	37	58	63	70	73	T1–T2 ^a , T1–T4 ^c , T2–T3 ^b , T2–T4 ^c , T3–T4 ^a
control group	10	73			72	Non-significant
Motivation to develop rapport						
training group	37	79	84	82	86	T1–T2 ^a , T1–T4 ^b
control group	10	79			83	Non-significant
Knowledge outcomes						
training group	37	46	64	60	65	T1–T2 ^c , T1–T4 ^c , T2–T3 ^b , T3–T4 ^b
control group	10	44			47	Non-significant
Workplace behavioural outcomes						
Positive engagement						
training group	30	63			69	T1–T4 ^a
control group	10	68			54	T1–T4 ^a
Empathic motivation						
training group	16	50			62	T1–T4 ^b
control group	8	66			63	Non-significant
Empathic skills						
training group	16	46			55	T1–T4 ^a
control group	8	53			58	Non-significant
Communication skills						
training group	16	53			63	T1–T4 ^b
control group	8	61			62	Non-significant
Overall rapport						
training group	16	49			62	T1–T4 ^b
control group	8	60			61	Non-significant

^a $P < 0.05$, ^b $P < 0.01$, ^c $P < 0.001$

Level 2 evaluation: affective learning outcomes

Comparing T1 with T4, it can be seen that the training group demonstrated significant increases in all three affective dimensions of attitude to rapport, confidence about developing rapport and motivation to develop rapport (see Table 2). The biggest increase was seen in confidence. In contrast, the control group showed no significant change in any of these dimensions during

this time. Comparing across the two groups, there were no significant differences in levels of rapport-related attitude or motivation between them either before or after training. However, there was a significant difference in levels of rapport-related confidence prior to the delivery of the training modules ($t = 3.38$, $P < 0.001$), with the control group being more confident. By the time training had finished at T4, the difference had disappeared.

Level 2 evaluation: knowledge-based learning outcomes

Within the training group, there was significant positive change in rapport-related knowledge over time. Within the control group, there was no significant rise in scores. Comparing the two groups, there was no significant difference in levels of rapport-related knowledge prior to the delivery of the training modules (T1), but registrars in the training group had significantly higher levels of knowledge compared to registrars in the control group ($t = 4.28, P < 0.001$) by the end of the modules (T4).

Level 3 evaluation: workplace rapport-related outcomes

Within the training group, 30 registrars (55% of those invited to do so) completed both videotapes of 4–6 consultations, the first at T1 and the second at T4. Within the control group, 10 registrars (36% of those invited to do so) completed both videotapes of 4–6 consultations at T1 and T4. A random selection of 24 consultations from each group was then selected for assessment by expert raters (involving two consultations from each of 16 training group participants and eight control group participants).

Positive engagement

Positive engagement represented a collective measure of verbal and non-verbal behaviours related to rapport. It was created to represent key communication skills involved in generating rapport, as described above. Within the training group, there was a significant positive change in incidence of positive engagement between consultations assessed before and after training (T1 = 63%, T2 = 69%, $P < 0.05$). However, within the control group, there was a significant fall in the rate of positive engagement (T1 = 68%, T2 = 54%, $P < 0.05$).

Comparing the two groups, there was no significant difference in levels of positive engagement prior to the delivery of the training modules, but registrars in the training group showed significantly higher levels of positive engagement by the end of the modules, when compared to registrars in the control group ($t = 3.64, P < 0.01$).

Expert ratings

Within the training group, there was a significant positive change in the expert ratings of all aspects of rapport-related behaviour between consultations assessed before and after training, i.e. between T1 and T4: empathic motivation (T1 = 50%, T2 = 62%, $P < 0.05$), empathic skills (T1 = 46%, T2 = 55%, $P < 0.05$), communication skills (T1 = 53%, T2 = 63%, $P < 0.05$) and overall rapport established (T1 =

49%, T2 = 62%, $P < 0.05$). However, within the control group, there was no significant difference between ratings of any of these dimensions at the two time points.

Comparing the two groups, the training group showed consistently lower levels of rapport-related behaviours before training, but this difference was very small after training. For example, there was a statistically significant difference in expert ratings of empathic motivation ($t = 2.09, P < 0.05$) prior to the delivery of the training modules, with the control group rated as demonstrating significantly higher levels than the training group at this point. However, the two groups showed similar ratings when consultations were analysed immediately after training.

Analysis of consultations post-training also indicated significant correlations between coded levels of positive engagement and expert ratings of rapport. Those coded as demonstrating greater positive engagement were rated by the experts as significantly more effective in establishing rapport with patients in the first four minutes of the consultation ($r = 0.54, P < 0.01$), and the same pattern was repeated in relation to empathic motivation ($r = 0.58, P < 0.01$) and communication skills ($r = 0.51, P < 0.05$).

It is important to note that controlling for demographics (age, sex and country of qualification) had no effect on any of the above questionnaire- or video-based findings.

Discussion

We studied rapport-related behaviour (in particular empathic skills) in a real setting, with qualified doctors in postgraduate training. Typically, research into the impact of training interventions on empathy has focused more on empathic motivation than skills,^{15,16} or on pen-and-paper-style assessments of empathic skills (based on the quality of empathic responding to theoretical scenarios).¹⁷ Also, this type of research is generally carried out with medical undergraduates, often well before they have developed sufficient experience to be tested in a realistic context or environment, and without longitudinal follow-up.

Discussion of empathy or rapport has also tended to be generalised or holistic. The new training module defined a more clearly identifiable empathic journey, within a model of developing therapeutic rapport. Given that this might initially have appeared complex to new GP registrars, it was particularly encouraging to note the significant increase, over the time-span of the module, in their knowledge, attitudes and confidence associated with rapport.

The rapport model specifies a range of specific verbal and non-verbal behaviours as central to the development of rapport early in the consultation. It was therefore encouraging to note the significant increases after training in the demonstration of positive engagement behaviours and expert ratings of empathic motivation, empathic skills, communication skills and the quality of shared understanding (and thus rapport) established between GP and patient in the first four minutes of videotaped consultations. The significant correlation between coded demonstrations of positive engagement in the consultations, and expert ratings of rapport-related *outcomes*, strengthens the suggestion that use of a small group of specific, trainable behaviours can have an immediate influence on the *effectiveness* of the interaction between doctor and patient.

Taking the above findings collectively, we would suggest that the observed growth in knowledge (i.e. understanding), allied to positive changes in attitude and confidence, helps explain the evidence of improved demonstration of rapport-related behaviours in the consultation.

The lack of comparable change among registrars within the control group – whether in knowledge, attitude, confidence or observed behaviour – suggests that the modules delivered in the training group may have achieved significant change independent of ongoing experience or other educational initiatives (e.g. involvement of individual trainers and Vocational Training Scheme activities).

The fact that core demographic factors had no effect on findings involving analysis of observed behaviour on video was also encouraging, suggesting that core rapport-generating behaviours are accessible to all registrars, irrespective of age, sex or country of qualification.

Strengths and limitations

This was a detailed and thorough analysis of the impact of a training exercise, but the scope of the design led to significant limitations, particularly in terms of the sample size of the control group. Difficulties in obtaining sufficient video material from the latter clearly restricted the potential for achieving robust outcomes. Also, groups were not randomly assigned, although an attempt was made to match their demographic profiles.

In addition, it was unfortunate that the training group demonstrated significantly lower levels of rapport-related behaviours than the control group, prior to the training intervention. This baseline difference suggests the two groups might not have been sufficiently comparable in performance terms at the outset of the intervention.

Implications for further research

To strengthen the validity of the present findings from our pilot study, a larger sample size for both experimental and control groups would be advisable to aid factor structure, change and correlational analyses. A study of the impact of the training on level 4 ('organisational results') of Kirkpatrick's model for assessing training effectiveness would also be informative. This would involve drawing on available data on consultation outcomes, e.g. relevant patient return rates and list sizes of the doctors involved in the training. It would also be instructive to consider the transferability of such training, by conducting a study in a related medical field, for example with nurses.

Separate research might look at the interaction between the level of therapeutic rapport established in the first part of the consultation and the quality of the decision-making process that follows – to assess, for example, the degree of constructive involvement demonstrated by patients in the negotiation of management plans.

The use of patient ratings in any future research would offer a more robust form of objective assessment. This study did not use patients because of practical difficulties associated with generating comparable patient samples both before and after the training intervention. A health-economic evaluation using patient data would also help clarify the bottom-line costs versus benefits of using this training intervention.

Application to practice

A number of constructive, practical suggestions emerge from this study. At a general level, the strength of the competency-based approach to training has found some support – specifically the close behavioural focus, where individual factors are initially considered separately (to develop understanding and highlight potential individual needs) then practised as part of an inclusive process. This was reinforced by a progressive journey from theory to practice, with the model initially triggering discussion, and video analysis leading up to individualised practice with trained simulators.

Also instructive is the grounding of such training clearly on an understanding of key dynamics within the consultation relationship, e.g. the particular roles played by empathic motivation and skills alongside the more functional verbal and non-verbal communication skills.

The use of individual diaries between sessions, to record reflections on consultations where specific aspects of rapport building had been analysed for their execution and effect, reinforced the notion of tracking

development of specific skills, in line with current moves to establish portfolio learning and workplace-based assessment as central planks to postgraduate medical training.

Conclusion

Traditionally, discussion about rapport in the consultation has tended to speak of an almost indefinable connection between doctor and patient. The new training module described a more clearly identifiable process, within a new model of the empathic journey to constructive or therapeutic rapport. The consistently positive outcomes and feedback from our pilot study suggest this level of behavioural depth and clarity may have real benefits in the training environment, and therefore warrants further large-scale investigation.

ACKNOWLEDGEMENT

We thank Pat Lane (former Director of Postgraduate General Practice Education, South Yorkshire & South Humber Deanery) for his support.

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FUNDING

North Trent Workforce Confederation (Dr Pat Lane). The funder was independent from the conduct and outcomes of this study.

ETHICAL APPROVAL

Northern and Yorkshire multi-centre research ethics committee (reference 03/3/052).

PEER REVIEW

Not commissioned, externally peer reviewed.

CONFLICTS OF INTEREST

None.

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Received 29 October 2008

Accepted 11 January 2009