

Is Specialist Communication a foreign language?

A comparison of advice given to back pain patients by GPs in the North West of England and Wales

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Abstract

We use a clinical scenario of a 42 year old man with back pain but no sciatica who presents with a typical MR scan report to investigate how generalists and specialists differ in the strength of advice they give the patient. National guidelines recommend activity, analgesics and reassurance. Each question relating to the scenario could be rated on a 0-6 scale from completely disagree (0) to completely agree (6), subjects could take the middle ground by neither agreeing nor disagreeing (3).

Overall generalists and specialists differ on the certainty expressed in answering 15 of the 21 questions (14 with a $p < 0.01$). GPs in Wales and the North West of England give the same levels of certainty when answering the questions.

Doctors who interpret the scan finding as abnormal are four times more likely to offer the patient a surgical referral ($p < 0.0001$, OR 4.04, CI 2.33 – 7.0). These findings suggest that GPs knowledge of guidelines is equally good in the North West of England and in Wales and that perhaps more attention should be focussed on identifying outlier doctors whose interpretation of an investigation may increase surgical workload unnecessarily.

Introduction

Pain medicine, perhaps more than any other speciality, recognises the importance of communication as a modifiable factor that can cause or prevent pain behaviour¹. In primary care, effective communication may be assessed by outcomes such as patient adherence to medical regimens^{2,3} and clear communication between physician and patient could improve adherence⁴.

Back pain is a common clinical problem where the clinical relevance of communication is high⁶ and this 'back pain revolution'⁷ recognises the possibility that "fear of pain and what we do about it may be more disabling than pain itself"⁸. Fear of movement is associated with increased levels of back pain and disability after lumbar disc surgery⁹ and back pain treatment guidelines recommend that patients should stay active¹⁰ but General Practitioners' [GPs] own beliefs can influence their treatment recommendations for patients with back pain¹⁰.

GPs treat patients with back pain, and significant reductions in pain can be achieved by referring patients to pain specialists¹¹. It is possible that the clarity of communication resulting from a specialist opinion contributes to the benefit patients experience after specialist referral.

This paper focuses on the consistency of treatment advice from generalists. We chose to investigate this through a questionnaire survey of GPs in the North West of England and a second group practising in Wales to assess consistency in advising back pain patients to:

- i) Take Analgesia and ii) Stay Active

Patients with chronic back pain may be investigated with Magnetic Resonance [MR] scans¹³ even though MR scans are not generally recommended for low back pain as 20% may have some nerve root compression without any lower limb pain¹⁴ and serious episodes of new onset low back pain are highly unlikely to have any new structural change on MR scan¹⁵.

Our scenario is therefore that of a 42 year old man, suffering with long standing back pain without sciatica and we would expect there to be:

1. No difference between GPs and Specialists in the way they communicate in the clinical scenario, and
2. No difference between the 2 groups of generalists in recommending that patients should
 - i) take analgesia
 - ii) stay active, even if it hurts

We further planned to investigate whether doctors who interpret a lumbar MR scan as abnormal were more likely to advise a reduction in activity, even though this is counter to the current guidelines. Conversely we also investigated whether doctors who generally advise patients to avoid painful movements will be as clear in their communication to patients that they 'should stay active, even if it hurts', thereby complying with the guidelines¹⁰.

Method

A patient attended a specialist back pain clinic and reported that they had been told that they would end up in a wheelchair by the age of 60 during a previous consultation. The opinions of experts in neurosurgery, orthopaedics, pain management and physiotherapy were sought and the consensus was that the scan was essentially normal, did not show significant abnormalities and most importantly; the patient could and should continue to live life normally. This clinical event inspired the development of a questionnaire in order to investigate how clinicians communicate with patients and whether the physician's interpretation of the scan influences consequent patient treatment. The project plan was offered for ethical review both in England and in Wales and was approved.

The questionnaire was developed and consisted of a clinical scenario based on the above patient. Statements and questions could be rated on a 7 point scale so that clinicians could express their opinions varying from 0=do not agree at all to

6=completely agree.

The scenario was this:

A patient of yours with back pain has had an MRI scan of his lumbar spine, and he has returned to see you for an explanation of what his results mean.

He is 42 years old with long standing back pain. He does not have sciatica, otherwise he has no significant medical history and his physical examination is unremarkable. His MR report is as follows....

There are degenerative changes in the L4/L5 and L5/S1 discs both of which are narrowed and dehydrated. A disc tear can be seen at L4/5 with a small central prolapsed disc. There is no evidence of any thecal or root compression.

Each statement could be marked on a scale of 0-6 where 0 = do not agree at all and 6 = completely agree. Expert responses were collected by sending the questionnaire to all the pain clinics in the Dr Foster report of pain services. GP responses were taken in two groups - a random sample of GPs taken from a list of GPs practising in the North West of England and a separate random sample of GPs practising in Wales

Results

Questionnaires were sent to all of the English pain services listed by the Dr Foster report, 400 GPs randomly selected from a list of 5000 GPs practising in the North West of England and 1000 GPs practising in Wales. A total of 313 (20%) responses were received and the results are given in table 1. Each statement was scored on a numeric scale of 0 = Do not agree at all to 6 = completely agree.

The individual scores were entered into a statistical database (Graphpad Prism 4). The responses from English and Welsh GPs were first analysed for significant differences and subsequently combined for comparison against

the expert responses (Table 1).

Section and Question	Experts N = 31 Mean (st dev)	English GPs N = 80 Mean, (st dev)	Welsh GPs N = 202 Mean, (st dev) N	English v Welsh GPs P	ALL GPs Mean (st dev), N	Experts v ALL GP P
Informing him of results: Would you tell him that...						
There is wear and tear	3.97 (1.96)	4.85 (1.07)	4.90 (1.19) 202	= 0.7274	4.89 (1.16) 282	= 0.0152
There is evidence of degenerative disease	3.26 (2.35)	4.19 (1.61)	4.53 (1.46) 196	= 0.1012	4.43 (1.51) 276	= 0.0106
His scan is significantly abnormal	1.03 (1.25)	2.59 (1.55)	2.23 (1.53) 193	= 0.0864	2.34 (1.54) 273	< 0.0001*
His scan is essentially normal	3.29 (1.95)	2.40 (1.71)	1.73 (1.54) 189	= 0.0030	1.92 (1.62) 269	= 0.0007*
He has age related changes	4.39 (1.86)	3.44 (1.82)	3.04 (1.55) 193	= 0.0903	3.16 (1.64) 273	= 0.0012*
Would you tell him that						
He could and should continue to live a normal life	5.39 (0.80)	4.64 (1.27)	4.51 (1.39) 196	= 0.4452	4.54 (1.36) 276	< 0.0001*
He may end up in a wheelchair	0.16 (0.45)	0.39 (0.63)	0.89 (0.99) 192	< 0.0001*	0.73 (0.90) 272	< 0.0001*
His back may be weak or crumbling	0.23 (0.50)	0.93 (1.23)	0.94 (1.10) 191	= 0.9130	0.94 (1.14) 271	< 0.0001*
His back is weak and similar to that of a much older man	0.39 (0.76)	1.68 (1.53)	1.75 (1.47) 194	= 0.7005	1.72 (1.48) 274	< 0.0001*
What advice would you give regarding his back pain?						
To take pain killers	4.26 (1.39)	4.55 (1.10)	4.47 (1.10) 195	= 0.5938	4.50 (1.10) 275	= 0.3663
To alter his lifestyle to be less active	0.81 (1.01)	1.69 (1.56)	1.38 (1.39) 189	= 0.1298	1.48 (1.45) 269	= 0.0019*
He should change job to a more sedentary role	1.32 (1.45)	1.94 (1.50)	1.86 (1.38) 184	= 0.6890	1.88 (1.42) 264	= 0.0482
That he should gradually increase activity, even if it hurts	4.65 (1.23)	3.73 (1.48)	3.35 (1.49) 189	= 0.0622	3.47 (1.49) 269	< 0.0001*
To what extent do you agree with the following statements						
If a movement increases the pain I advise my patients to avoid it.	1.29 (1.22)	2.70 (1.44)	2.87 (1.52) 193	= 0.3812	2.85 (1.51) 274	< 0.0001*
Sick leave is a good treatment for back pain	0.52 (1.23)	1.14 (1.16)	1.04 (1.18) 196	= 0.5314	1.07 (1.17) 276	= 0.0230
Pain reduction is a prerequisite for returning to work	1.19 (1.42)	2.50 (1.41)	2.63 (1.57) 195	= 0.5014	2.61 (1.53) 275	< 0.0001*
Pain intensity is directly related to the degree of injury	0.39 (0.80)	1.41 (1.35)	1.19 (1.05) 196	= 0.1860	1.25 (1.15) 276	< 0.0001*
This scan explains his pain	1.00 (1.32)	2.59 (1.62)	3.01 (1.49) 196	= 0.0461	2.89 (1.54) 276	< 0.0001*
Referral for osteopathy or passive 'hands on'	1.94 (1.79)	3.28 (1.59)	3.10 (1.57) 196	= 0.4123	3.16 (1.57) 276	= 0.0009*
Physiotherapy is indicated						
He could self manage with simple advice	4.61 (1.33)	3.88 (1.33)	4.05 (1.31) 197	= 0.3314	4.00 (1.32) 277	= 0.0195*
Would you consider referral to a specialist	2.10 (2.09)	2.98 (1.53)	2.85 (1.78) 196	= 0.5640	2.89 (1.71) 276	= 0.0497

Table 1 Aggregated questionnaire responses from 31 experts, 80 English GPs and 202 Welsh GPs. Responses from English and Welsh GPs and Experts and the combined results of all GPs have been compared using unpaired t-test with Welch's correction. The probability of finding one or more p value of less than 0.05 with a questionnaire containing 20 questions is 64%, therefore statistical significance is taken at $p < 0.0026$.

The variation in responses that patients may experience is shown in figures 1 and 2.

Figure 1 Responses to the statement that 'the patient should gradually increase activity, even if it hurts'.

NICE guidelines suggest recommending activity, i.e respondents agreeing with the statement are being consistent with the recommendations.

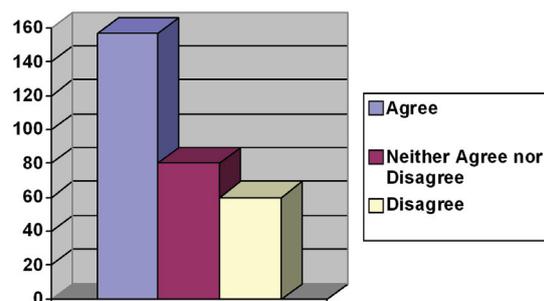
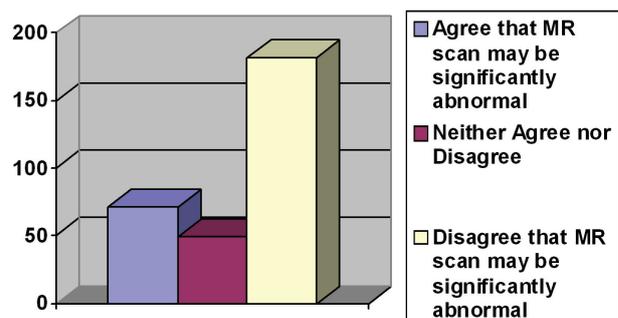


Figure 2 Bar chart of responses to the statement that 'the MR scan may be significantly abnormal'.

The expert consensus is that the scan report is essentially normal; respondents disagreeing with the statement are therefore being the most consistent with the general body of opinion.



The questionnaire further identified that 3/31 (9.7%) experts would make a surgical referral and 11/31 (35.5%) would recommend referral to a pain specialist or physiotherapist.

Of the 80 English GPs, 29 (36.25%) would not refer, 30 (37.5%) would refer to a surgical service, 16 (20%) would consider pain management or rheumatology and 5 (6.25%) would refer the patient to physiotherapy.

Similarly, 82/202 (40.59%) Welsh GPs wouldn't refer, 90/202 (44.55%) would refer to a surgical service, 23 (11.38%) to pain management or rheumatology and 14 (6.9%) would refer to physiotherapy – the total exceeds 100% as some GPs would make more than one referral.

Table 2

Contingency table of the number of doctors who would or would not refer the patient to a surgical service and the interpretation of the MR scan as abnormal.

Interpretation of scan as significantly abnormal	Surgical Referral	Non-Surgical Referral	
Yes	48	26	74
No	75	164	239
	123	190	313

$p < 0.0001$, odds ratio 4.04 (95% CI 2.33 – 7.0)

A patient whose doctor interprets the MR scan as abnormal will be 4 times more likely to be referred to a surgical service.

Discussion

GPs in both the North West of England and in Wales appear to communicate in a very similar manner; however specialist communication is statistically very different to generalist communication. The compliance with the guideline recommendations is high in all three groups - with both sets of generalists being just as likely as experts to recommend analgesics as per the national guidelines¹⁰; however GPs

appear to show less certainty in recommending activity in this admittedly contrived situation.

The additional degree of clarity offered by experts may be important in explaining some of the benefit that patients experience after pain specialist referral for chronic low back pain as generalists may not be as clear in expressing their opinions. For example, the recommendation to stay active is an important part of the guidelines for back pain treatment, and while specialists gave a firm 'yes' the generalists tended to give more equivocal answers. These differences could be regarded as quite subtle; however, patients may become confused by conflicting actions; particularly in situations where the doctor gives the opinion that the MR scan is not significantly abnormal and at the same time also refers the patient to a surgical screening service. The additional comments given by many respondents demonstrate that generalists who do refer to surgical services may be attempting to access non-surgical treatments. However, patients may not be aware of this, and could become fearful that the doctor simply hasn't told them about a suspected surgical pathology.

The role of physician-physician communication may also be important; the radiological report was interpreted by 239 doctors as not being significantly abnormal and another 74 who thought that it was significantly abnormal. The interpretation of the radiological report appears to influence the type of treatment offered to patients and this finding supports earlier work by Linton¹⁵. It is plausible that doctors who have an underlying belief regarding avoidant behaviour in response to pain may be more likely to recommend avoidant behaviour for the patient through failing to recommend staying active. Doctors who are confident that the MR scan is not significantly abnormal are highly likely to be clear in advising against the patient altering their lifestyle to be less active. Conversely, doctors who express a concern that the scan report is significantly abnormal are four times

more likely to refer to a surgical service. Those doctors who play it 'safe' by expressing no clear opinion are leaving room for the patient to 'fill in the blanks' and without clear communication some misinterpretation is inevitable.

GPs in both England and Wales seem to be equally familiar with the RCGP guidelines for treating back pain and patients with back pain will get the recommended treatment in both countries.

However, pain specialists achieve better pain control than generalists and the clinical benefits arising from the additional training that specialists have in pain diagnosis, prescribing and treatments may be augmented by the additional value provided by the confidence a specialist has in giving clearer communication to patients. Further work will assess if patients benefit with greater access to this seemingly foreign language of pain specialists.

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