

The “Myths” of Low Back Pain: Status Quo in Norwegian General Practitioners and Physiotherapists

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Background. In 2001, several myths of low back pain still were alive in the general population in Norway, myths that were not in concordance with current guidelines.

Objectives. To investigate perceptions about back pain in Norwegian general practitioners and physiotherapists and to compare these with perceptions in the general population.

Methods. During June 2001, 436 general practitioners (mean age 44.8, range 26–69 years) and 311 physiotherapists (mean age 47.6, range 25–70) were asked to rate their agreement with 7 statements, corresponding to Deyo’s 7 myths that formulate 7 common misbeliefs on back pain. The corresponding data from the general population of 807 individuals (mean age 45.5, range 25–70) were sampled during early spring 2001.

Results. There were significant differences between the general population, general practitioners, and physiotherapists for all myths, the general population being more likely to agree with all myths. The differences were maintained even after controlling for educational level in the general population. There were no differences between general practitioners and physiotherapists except for the myths “radiographs and newer imaging tests can always identify the cause of pain” and “back pain is usually disabling,” whereas general practitioners were less likely to disagree with the myths. Few gender and age differences were found in the professional groups.

Conclusion. In Norwegian general practitioners and physiotherapists, Deyo’s 7 myths mostly seem to be dead and buried. However, it does not seem that this has extended to the public yet, as many myths still are alive in the general population.

Key words: low back pain, general practitioner, physiotherapist, musculoskeletal pain, treatment. **Spine** 2004;29:1818–1822

Low back pain presents a major public health problem and is the leading cause of sickness compensation and disability pension¹ and is one of the leading symptomatic causes of consulting the health care system.^{2–4}

Both general practitioners (GP) and physiotherapists (PT) play an important part in management of back pain.

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Norwegian government funds were received in support of this work. No benefits in any form have been or will be received from a commercial party related directly or indirectly to the subject of this manuscript. Address correspondence and reprint requests to Camilla Ihlebæk, PhD, Norwegian Back Pain Network, Research Unit, Department of Biological and Medical Psychology, University of Bergen, Jonas Liesvei 91, Bergen N-5009, Norway; E-mail: camilla.ihlebaek@psych.uib.no

However, although several systematic reviews and guidelines have been developed for GPs,^{2,5,6} and these seem to be quite similar between countries,⁷ the care of the individual patient varies, and many guidelines are not followed after dissemination.^{8–11} In United Kingdom, the gap between GP practice and recent guidelines have been reported to somewhat decrease, although variation in practice still exist.¹² In the United Kingdom, 1.3 million people received physiotherapy for low back pain each year,² and because as much as nearly 90% of physiotherapy treatment involves giving advice to patients,¹³ PTs perception on how back pain should be treated could have great impact on the patients.

During spring 2001, we collected data on the general population’s perception on low back pain, based on Deyo’s 7 myths about back pain.¹⁴ We found that several of these myths still were alive in the Norwegian public.¹⁵ The aim of this study was to examine Norwegian GPs and PTs perception of positions on low back pain. In addition, we wanted to compare the professionals’ perceptions on back pain with those found in the general population.

Material and Methods

During June 2001, 436 (43.6%) general practitioners (GP) (mean age 44.8, range 26–69 years) and 311 (51.8%) physiotherapists (PT) (mean age 47.6, range 25–70) rated their agreement with 7 statements, corresponding to Deyo’s 7 myths.¹⁴ The questionnaire was distributed by the opinion firm Norwegian Gallup to 1000 GPs and 600 PTs, drawn from a list of all GPs and PTs in Norway. The exact procedure was as follows: the national lists were first sorted by first name and stratified by gender, age, and regional distribution to get a representative sample. All GPs and PTs were then contacted by mail and asked for their e-mail address. Only 63 GPs and 50 PTs responded and got a questionnaire by e-mail, which all of them answered. The remaining sample was sent a questionnaire by mail. Of these, 373 (of 937) GPs and 261 (of 550) PTs answered the questionnaire.

The general population data were sampled during early spring 2001¹⁵; 807 individuals (mean age 45.5, range 25–70 years) were telephone interviewed by the opinion firm Norwegian Gallup. The interviews were conducted as part of a monthly national omnibus in a sample of the Norwegian population representative with regard to gender, age, and educational and regional distribution. Deyo’s 7 myths were included in the omnibus in addition to the regular commercial/marketing issues and public opinion poll measurements. The error rate of this method is estimated to 0.3% to 8.7% for opinion research for political issues.¹⁶

The responders were asked to rate the statements on a

5-point scale (totally disagree, disagree, neither disagrees nor agrees, agree, and totally agree). The 7 statements were:

1. If you have a slipped disc (also known as a herniated or ruptured disc), you must have surgery.
2. Radiographs and newer imaging tests (computed tomography [CT] and magnetic resonance imaging [MRI] scans) can always identify the cause of pain.
3. If your back hurts, you should take it easy until the pain goes away.
4. Most back pain is caused by injuries or heavy lifting.
5. Back pain is usually disabling.
6. Everyone with back pain should have a spine radiograph.
7. Bed rest is the mainstay of therapy.

Statistics. SPSS 11.0 for Windows was used for the statistical analyses. Before the analysis, the responses to the myths were categorized into agreeing (totally agree, agree), unsure (neither agreeing nor disagreeing), and disagreeing (disagreeing, totally disagreeing). Frequencies of agreeing were calculated for the general population and different professional groups. Group differences were tested with χ^2 tests. To investigate potential gender and age differences in GPs and PTs in response to the myths, we used logistic regression. Preliminary analysis showed that the e-mail responders were significantly younger ($F = 8.161, P = 0.004$) and showed a higher frequency of men ($\chi^2 = 4.904, df = 1, P = 0.027$) than the postal responders. In order to control for this, gender, age, and type of response were all entered in the analysis. The individuals were categorized into 2 age groups: 45 years and younger and older than 45 years.

■ Results

There were significant differences between the general population, GPs, and PTs for all myths.

In general, the majority of the GPs and PTs did not agree with the myths, whereas in the general population, the percentage that agreed varied between 10% to almost 60% (Figure 1). As many as 50% to 60% of the general population believed in the importance and benefit of radiographs and other imaging tests, whereas less than 10% of the health professionals did. In the general population, 40% to 45% also agreed that most back pain was caused by injuries and that you needed to have surgery if you had a slipped disc, whereas approximately 5% or less of the GPs and PTs agreed to this. About 10% of the general population agreed that bed rest is the mainstay of therapy for back pain, whereas only 1% of the professionals did the same. Controlling for education by including only responders from the general population with a college/university degree did not make any major changes in the differences between the health professionals and the general population, and for all myths, the difference remained significant (see Figure 1 for frequencies and P values).

However, there were few differences between the 2 professions in beliefs about back pain. General practitioners showed lower frequencies of disagreeing and higher frequencies of being unsure than PTs for the myths “ra-

diograph and newer imaging tests can always identify the cause of pain” ($X = 30.911; df = 2; P < 0.000$) and “back pain is usually disabling” ($X = 22.478; df = 2; P < 0.000$). For the other 5 myths, there were no significant differences between the 2 professions.

Gender and Age Differences

General Practitioners. Female GPs (13.2%) showed significantly lower risk than men (20.4%) of being unsure as compared to disagreeing to “if your back hurts, you should take it easy until the pain goes away” (odds ratio [OR] 0.53; 95% confidence interval [CI] 0.28–0.99; $P = 0.049$); otherwise, there were no gender differences for GPs.

The only age differences found were for the myth “most back pain is caused by injury and heavy lifting.” General practitioners in the oldest age group (34.7%) showed significantly lower risk of being unsure than the younger age group (45.9%) (OR 0.53; 95% CI 0.35–0.80; $P = 0.003$). They also showed significantly lower risk of agreeing as compared to disagreeing (3.3%) than the younger age group (8.2%) (OR 0.26; 95% CI 0.10–0.66; $P = 0.004$).

Physiotherapists. Female PTs (57.0%) showed significantly higher risk of being unsure as compared to disagreeing to “radiograph and newer imaging tests can always identify the cause of pain” than men (44.6%) (OR 1.67; 95% CI 1.04–2.66; $P = 0.033$); otherwise, there were no gender differences for PTs. There were no significant age differences among PTs.

■ Discussion

In Norwegian GPs and PTs, Deyo’s 7 myths¹⁴ seem to be dead and buried, with few differences between the 2 health professional groups. Most GPs and PTs have perceptions on back pain care that are consistent with those of the new back pain revolution.¹⁷ However, it does not seem that they or the public health authorities have managed to bring the message out to the public yet, as most myths seems to be alive in the general population.

On some of the myths, like the necessity of surgery and use of imaging tests, there was, however, a relatively high level of uncertainty in GPs and PTs, and this uncertainty could be a contributing factor in maintaining the myths in the general public. It could also be a gap between the perception of positions on low back pain and the actual treatment given. Cherkin *et al*¹⁸ reported lack of consensus in treatment of patients with back pain among physicians and suggested that this could be attributable to ignorance or rejection of existing scientific evidence, excessive commitment to a particular mode of therapy, or a tendency to discount the efficacy of competing treatments. The patients’ preferences have also been found to be an important reason for GPs nonadherence to guidelines.¹⁹ If the patients expect a radiograph, the GPs may feel pressured to refer more patients to radiograph than necessary. In a Norwegian study on how GPs treat back pain patients, Werner *et al*²⁰ found

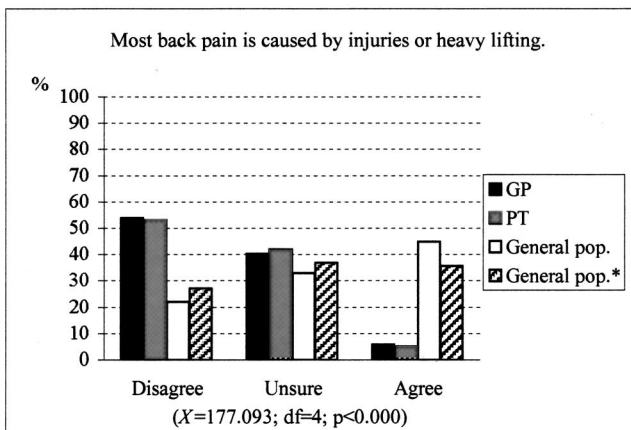
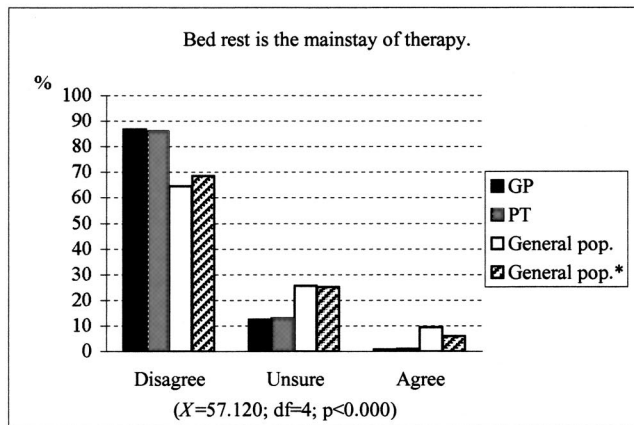
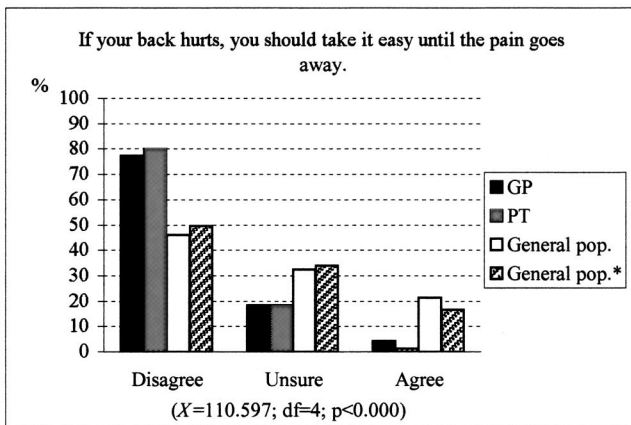
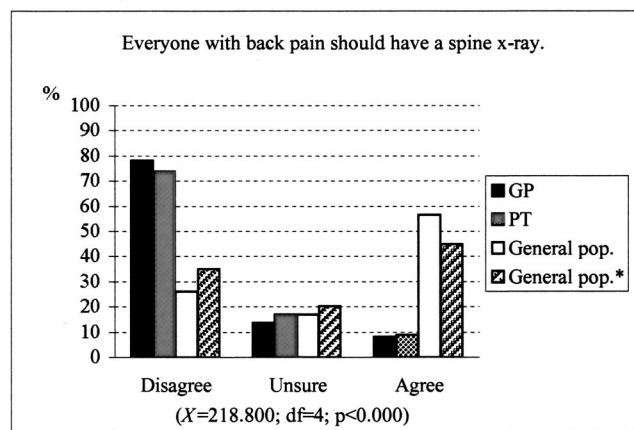
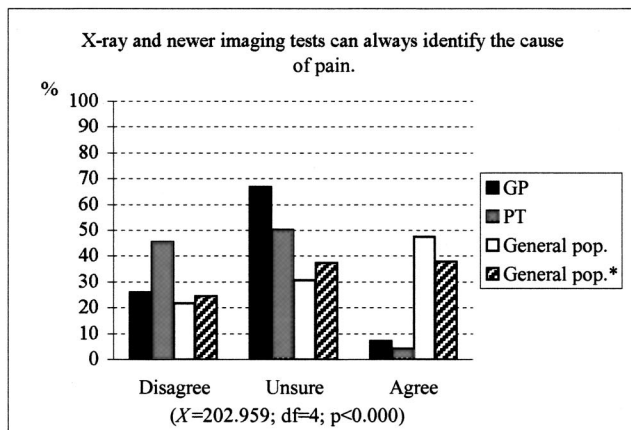
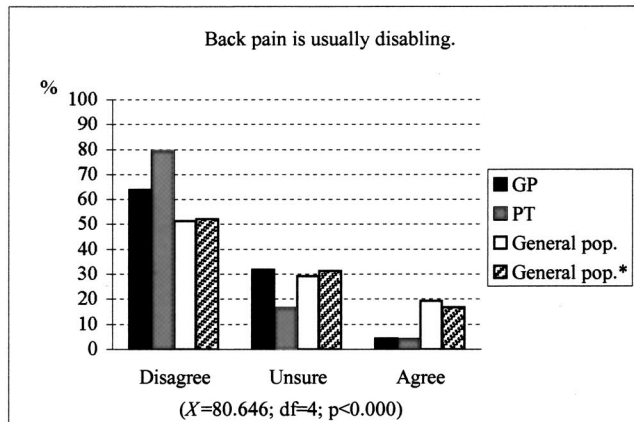
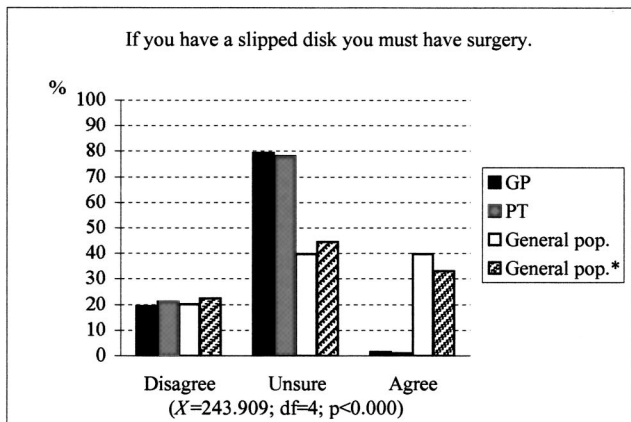


Figure 1. Frequencies (%) of disagreeing, being unsure, and agreeing with Deyo's 7 myths for general practitioners (GP), physiotherapists (PT), and the general population. *General population with college/university degree. Differences in distribution between GPs, PTs and general population* were tested with χ^2 tests.

that more patients were referred to radiograph than what is recommended by the Norwegian guidelines.⁵ On the other hand, it is known that it is quite common to use radiograph images as a tool to explain to the patients that there is nothing wrong with the spine.

We had no information on the general population's experience with back pain and do not know if they have consulted GPs or PTs for such pain. In a study of the general population in the United Kingdom, however, Moffett *et al*²¹ found that nearly 75% of those that had consulted a GP for low back pain expected a radiograph, as opposed to nearly 50% of those with back pain that had not consulted a GP. There were, in general, more misconceptions among those who had consulted a GP. More studies are needed to investigate the relationship between perceptions in the health professionals, the actual treatment and advice given to back pain patients, and the patients' perceptions of the advices given.

We found few gender and age differences among the GPs and PTs in the positions on back pain treatment. This is in agreement with another Norwegian study where Werner *et al*²⁰ found that there were no gender or age differences in GPs in treatment given except for prescription of medication, where older GPs tended to prescribe medication for back pain more often than younger GPs.

This investigation is partly based on data from a professional opinion poll. The disadvantages are uncertain response rate and no information on the nonresponders. The quality of the data is dependent on the representativeness of the sample, and willingness to participate is unrelated to opinions that are sampled. The error rate of this method is estimated to 0.3% to 8.7% for opinion research for political issues.¹⁶ However, although the precise proportion may or may not be totally accurate, the general pattern of differences found is not likely to be far from the truth. The results could probably be generalizable to other countries in the western world, because guidelines for treatment of back pain are generally similar across countries,⁷ and because few countries have carried out large educational campaigns in the general public. An exception is Australia, where Buchbinder *et al*²² have reported a good effect from a large scaled media campaign aimed at the general population in improving beliefs and attitudes in both the general population and in GPs.

In summary, professionals in Norway are updated on the newest holdings on treatment of back pain. It seems, however, that they have not yet managed to bring these perceptions out to the public. These findings suggest that health information and campaigns should be directed at the general population to create more adequate expectations and behavior and thereby more effective self-care and treatment. Earlier, we documented a strong relationship between lack of knowledge of back pain and low educational level in the general population.¹⁵ This emphasizes the importance of developing effective methods

of health education that will reach, especially, the lower educated people in the population to improve the effectiveness of campaigns.

■ Key Points

- In Norway for general practitioners and physiotherapists Deyo's 7 myths seem dead and buried.
- Misbeliefs of back pain are still alive in the general population.
- Health information and campaigns should be directed at the general population.

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References

1. Andersson GB. Epidemiological features of chronic low back pain. *Lancet* 1999;354:581–5.
2. Clinical Standards Advisory Group. *Report of a CSAG Committee on Back Pain*. London: HMSO; 1994.
3. Hart LG, Deyo RA, Cherkin DC. Physician office visits for low back pain—frequency, clinical evaluation, and treatment patterns from a US national survey. *Spine* 1995;20:11–9.
4. Rokstad K, Straand J, Sandvik H. Pasientkontakter i allmennpraksis. En epidemiologisk undersøkelse i Møre og Romsdal. [Patient encounters in general practice. An epidemiological survey in Møre and Romsdal]. *Tidsskr Nor Lægeforen* 1997;117:659–64.
5. The Norwegian Back Pain Network, Communication Unit. *Akutte Korsryggsmarter. Tverrfaglige Kliniske Retningslinjer. [Acute Low Back Pain. Interdisciplinary Clinical Guidelines]*. Oslo: The Norwegian Back Pain Network, Communication Unit; 2002.
6. Waddell G, Feder G, Lewis M. Systematic reviews of bed rest and advice to stay active for acute low back pain. *Br J Gen Pract* 1997;47:647–52.
7. Koes BW, Van Tulder MW, Ostelo R, et al. Clinical guidelines for the management of low back pain in primary care. An international comparison. *Spine* 2001;26:2504–14.
8. Di Iorio D, Henley E, Doughty A. A survey of primary care physician practice patterns and adherence to acute low back problem guidelines. *Arch Fam Med* 2000;9:1015–21.
9. Grol R. Successes and failures in the implementation of evidence-based guidelines for clinical practice. *Med Care* 2001;39:1146–54.
10. Lang E, Kastner S, Liebig K, et al. Interventions for improvement of primary care in patients with low back pain: how effective are advice to primary care physicians on therapies and a multimodal therapy program arising out of cooperation of outpatient health care structures? *Schmerz* 2002;16:22–33.
11. Little P, Smith L, Cantrell T, et al. General practitioners' management of acute back pain: a survey of reported practice compared with clinical guidelines. *Br Med J* 1996;312:485–8.
12. Frankel BSM, Moffett JK, Keen S, et al. Guidelines for low back pain: changes in GP management. *Fam Pract* 1999;16:216–22.
13. Gracey JH, McDonough SM, Baxter GD. Physiotherapy management of low back pain. A survey of current practice in northern Ireland. *Spine* 2002;27:406–11.
14. Deyo RA. Low back pain. *Sci Am* 1998;279:29–33.
15. Ihlebæk C, Eriksen HR. Are the “myths” of low back pain alive in the general Norwegian population? *Scand J Public Health* 2003;31:395–8.
16. Worcester R. Political polling: 95% expertise and 5% luck. *J R Stat Soc Series A Stat Soc* 1996;159:5–20.
17. Waddell G. *The Back Pain Revolution*. London: Churchill Livingstone; 1998.
18. Cherkin DC, Deyo RA, Wheeler K, et al. Physicians views about treating low back pain. The results of a national survey. *Spine* 1995;20:1–9.

19. Schers H, Braspenning J, Drijver R, et al. Low back pain in general practice: reported management and reasons for not adhering to the guidelines in the Netherlands. *Br J Gen Pract* 2000;50:640–4.
20. Werner EL, Lærum E, Ihlebæk C. Hva gjør primærlegen med ryggpasienten? [How is the general practitioner managing the low back pain patient?] *Tidsskr Nor Lægeforen* 2002; 122:1800–3.
21. Moffett JAK, Newbronner E, Waddell G, et al. Public perceptions about low back pain and its management: a gap between expectations and reality? *Health Expect* 2000;161–8.
22. Buchbinder R, Jolley D, Wyatt M. 2001 Volvo award winner in clinical studies: Effects of a media campaign on back pain beliefs and its potential influence on management of low back pain in general practice. *Spine* 2001;26:2535–42.