

Is chronic non-specific low back pain chronic? Definitions of a problem and problems of a definition

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SUMMARY

Background. Chronic low back pain (LBP) accounts for the majority of the disability and costs for LBP. However, the definition of chronicity is unclear.

Aim. To elicit practitioners' definitions of chronic LBP patients, both in general and in the patients they were treating; to assess the most common characteristics of these practitioners' chronic LBP patients; and to assess the stability of chronicity in a sample of the general population.

Method. Semi-structured interviews were conducted with 33 practitioners working in private practice, 71 LBP patients and their therapists, and 252 employees of a chain store who were assessed yearly in a prospective study.

Results. The therapists' definitions of chronic LBP patients generally included psychosocial aspects. Only physical symptoms and signs were stressed in the patients they were treating. These patients displayed common characteristics with reference to pain, functional problems, and contact with health care services. Duration of symptoms was not sufficient to define chronicity. In the employee population, chronicity defined according to pain duration was unstable. However, the same was true when chronicity was measured according to the criteria defined in the patient population.

Conclusion. There is a discrepancy between theory and practice regarding the definition of chronic LBP. This discrepancy concerns not only the literature but also clinical practice itself. The term 'chronic' LBP as currently used is therefore equivocal.

Keywords: low back pain; chronicity; psychosocial factors.

Introduction

NON-SPECIFIC low back pain (LBP) is one of the major reasons for medical consultations. As a definite somatic cause is

identified in only 10% to 20% of cases,^{1,2} 'non-specific' LBP is, in fact, determined by exclusion^{2,3} and refers to a symptom or, at best, to a syndrome rather than to a diagnosis.

Most of the suffering and costs resulting from LBP are caused by a minority of patients who become 'chronic'.^{4,5} What does chronicity mean in the back pain field? When characterized by the duration of symptoms, chronicity does not provide a sufficient explanation for its socioeconomic impact. Classification according to this criterion has received much attention; Table 1 shows some cut-off examples. A definition based solely on the duration of symptoms relies on the assumption that LBP has a linear course. However, it frequently runs a recurrent course^{6,7} and symptoms may fluctuate from day to day, even in patients experiencing pain on a long-standing basis.⁴ Classification in terms of 'acute' or 'chronic' may not, therefore, provide an accurate insight into the course of LBP as 'characterized by variability and change rather than predictability and stability'.⁸

The definition of chronicity may also include the impact of LBP on the patient's functioning or psychological well-being. Both functional and pain outcomes therefore need to be considered: chronic disability and chronic pain are not parallel, as continuation of pain and dysfunction may not be linked in a linear fashion. Whereas chronic pain may have little impact on the patient's functioning, chronic disability has more severe consequences, eventually affecting the patient's life both functionally and psychologically.⁶ Furthermore, it is chronic disability that accounts for a large part of the impressive costs linked to LBP problems.^{5,9} Therefore, the term 'chronic' LBP, which is so often used, appears ambiguous.

This study addressed four questions:

1. How do practitioners — rheumatologists and chiropractors working in private practices — define chronicity and chronic back pain patients generally?
2. Which elements of the practitioners' definitions are actually used in daily practice?
3. What are the most common characteristics of the practitioners' chronic LBP patients?
4. What was the stability of 'chronicity'?

This study was part of a multidisciplinary project on the factors associated with common LBP,¹⁰ conducted in the context of a National Research Programme investigating LBP and the prevention of chronicity in Switzerland. Therapists, LBP patients, and a sample of the general population were interviewed. Rheumatologists and chiropractors were also considered, as patients have direct access to these therapists and are thus largely involved in the primary management of LBP problems. This is the case in Geneva, but the procedure varies across the Swiss cantons, making it difficult to evaluate the involvement of general practitioners (GPs) and other therapists in primary care for LBP.

Methods

Definition of LBP

Of the 49 rheumatologists and chiropractors working in Geneva

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Table 1. Chronicity as defined by the duration of symptoms.

Duration of symptoms	Authors
More than three months	Nachemson and Bigos (1984) ²²
More than seven weeks	Quebec Task Force Classification ²³
More than three months	Frymoyer (1988) ²⁴
More than three months	Frank (1993) ³
At least half the days in a 12-month period in a single or in multiple episodes	Von Korff (1994) ¹⁷

at the time of the study, 16 rheumatologists and 17 chiropractors agreed to participate and were investigated through semi-structured interviews. These 33 therapists were representative of their whole groups in terms of age, sex, and number of years in practice. The interview explicitly referred to their clinical experience and focused on their general definitions of chronic LBP and chronic LBP patients.

We asked the therapists to give their own definitions instead of using multiple-choice questionnaires. As therapists' definitions were one of the endpoints of the study, the method of investigation had to provide the opportunity to assess their way of thinking about chronic LBP, since questionnaires mainly stimulate recognition memory. Furthermore, the items in a questionnaire may inhibit a further search for alternative answers.¹¹ The therapists' definitions thus provide a more thorough assessment of their understanding of chronicity.

Patients and their therapists

Twelve therapists, who were representative of their groups in terms of age, sex, number of years in practice, and general definitions of chronic LBP, were invited to participate in the study. They were asked to recruit their next five to seven patients who fitted the inclusion criteria and were willing to participate. Seventy-one LBP patients agreed to participate. Of these, 39 came from six chiropractors and 32 from six rheumatologists.

The inclusion criteria were: LBP with or without sciatica, continuous pain for three months or longer, patient aged 20 to 60 years old, first-time consultation with therapist involved in the study, and patient considered 'chronic' by the therapist. Exclusion criteria were: specific LBP; and pain onset related to an accident.

The interviews with patients and therapists were based on questionnaires that included open and closed standardized questions. These questions referred to the patient's use of health care services, pain and functional problems, the causes of the persistence or recurrence of LBP, and their expectations regarding future LBP problems. These questions were pre-tested on a group of patients matched with the study population on inclusion and exclusion criteria. Interviews were conducted separately for patients and therapists at the beginning of the treatment and at six-month follow-up. To avoid biases linked to prior information, the patient and his/her therapist were never examined by the same interviewer.

Stability of chronic LBP

Two hundred and fifty-two employees of a food and non-food chain store in Geneva were examined for four years through yearly interviews. The primary aim of this part of the study was to assess prevalence and yearly incidence of back pain, its severity, and socioprofessional consequences. The questionnaire included the same questions as those used with the patients.¹⁰

All the interviews were conducted by members of the research

team trained in interview procedures.

Population

The sociodemographic characteristics of the LBP patient ($n = 71$) and employee ($n = 252$) populations are presented in Table 2. All male LBP patients and 81% of the female patients were working at the time of the investigation. All of the patients were diagnosed as suffering from chronic, common LBP.¹⁰

In the employee population, 76.6% had suffered LBP at least once in their life, and the annual prevalence amounted to 62.7%. LBP prevalence was not significantly associated with the sociodemographic variables, except for increasing age.¹⁰

Data analysis procedure

The procedure used to examine the therapists' definitions of chronicity and chronic LBP patients was generally qualitative. As is often the case in psychosocial studies investigating representations,¹²⁻¹⁴ various dimensions related to these representations were considered and assessed by means of content analysis of open questions.¹⁵ All responses were transcribed and categorized, and the most frequently mentioned answers were assessed, thus allowing the determination of reference categories; i.e. categories grouping responses given by more than 50% of the therapists. A scoring system was established for the evaluation of the rheumatologists' and chiropractors' within-group and between-group differences. Bivariate and multivariate statistical procedures for the analysis of questionnaires used in the patient and employee groups were performed using the SPSS statistical package.¹⁶

Results

Therapists' definitions of chronicity and chronic LBP patients in general

Content analysis showed that therapists' definitions mainly used four criteria (Table 3): clear physical symptoms and signs, psychological difficulties, long course of treatment, and difficult working conditions (physical demands and/or job dissatisfaction). No differences were found between definitions given by rheumatologists and chiropractors. The practitioners' definitions exceeded criteria based on a particular diagnosis and the duration of symptoms, and included a broader psychosocial context.

Therapists' definitions of chronicity in their 'real' patients

Regarding definitions for the persistence or recurrence of LBP in patients they were actually treating, therapists essentially mentioned 'clear physical symptoms and signs'. The other three criteria, as described above, were only marginally quoted. Furthermore, this definition elicited a smaller range of answers; i.e. fewer responses referring to fewer criteria (Table 3). No differences were found between chiropractors and rheumatologists.

Table 2. Characteristics of the patient and employee populations.

Characteristic	LBP patients n (%) (n = 71)	Employees n (%) (n = 252)
Sex		
Male	34 (47.9)	165 (65.5)
Female	37 (52.1)	87 (34.5)
Age (years)		
Less than 30	13 (18.3)	44 (17.5)
30–39	24 (33.8)	77 (30.5)
40–49	16 (22.5)	87 (34.5)
Over 50	18 (25.4)	44 (17.5)
Professional status		
Non-qualified workers	22 (31.0)	104 (41.3)
Qualified workers	24 (33.7)	74 (29.4)
Managers	9 (12.7)	
Foremen	–	36 (14.2)
Administrative section	–	38 (15.1)
Self-employed	9 (12.7)	–
Housewives	7 (9.9)	–

Table 3. Chronicity: practitioners' definitions.

Reasons accounting for chronicity	Chronic back pain patients in general	Specific ('real') patients
Specific psychological difficulties	84.8%	32.4%
Clear physical or mechanical symptoms and signs	84.8%	64.8%
Long course of treatment	72.7%	15.5%
Difficult working conditions	51.5%	14.1%

As more than one response was possible, the totals are higher than 100%.

Most common characteristics in the group of chronic LBP patients (n = 71)

For only 12% of patients, the duration since first pain onset was less than five years; this increased to more than 10 years in two out of three patients. More than 80% of the patients had suffered from LBP for more than one month in the previous year. Pain was described as severe in 58% of the cases (7–10 on a visual analogue scale) and low (1–3) in only 14%. Functional problems were described as severe in 39.4% of the cases and as low or mild in 25.4% and 35.2%, respectively. However, from a functional point of view, it is important to note that none of the patients were unemployed at the time of the investigation and only 5.6% ($n = 4$) were on sick leave. There was no significant association between duration since first pain onset, pain persistence, and pain intensity, nor was there any significant association between pain characteristics and functional problems. The time of the first treatment dated back to more than six years in 78% of the patients. Eighty-nine per cent of the patients had already consulted at least three different types of therapists, such as GPs, rheumatologists, chiropractors, and physical therapists (mean = 6; range = 1–17). Post-surgical problems were not an issue since only two patients had undergone surgery. As could be expected, there was a significant association between the duration since pain onset and the number of therapists seen ($P < 0.01$). The decision to seek professional help was not always associated with pain intensity. The chiropractors' and the rheumatologists' patients did not significantly differ on any of these variables.

Analysis of the global dataset disclosed six criteria that were met by 80% of our group:

1. Duration since first pain onset of more than five years,
2. Mention of mild to severe functional problems the previous year,
3. At least three different types of therapists,
4. Mention of treatment(s) the previous year that lasted for more than one month,
5. Pain problems during the previous year that lasted for more than one month, and
6. Pain intensity of greater than three on a 10-point VAS.

Evaluation of the chronicity of back pain problems in the employee population (n = 252)

In this group, chronicity was first assessed according to pain duration. On the basis of the literature (Table 1), the cut-off was set at three months. According to this criterion, 45 individuals (17.9%) could be labelled as chronic at the time of the first questionnaire and 47 (18.7%) three years later. However, chronicity was stable in only 21 (8.3%) individuals (Figure 1).

The study group was then assessed on the basis of the six criteria found in the group of chronic LBP patients. The cut-off for chronicity was set at five criteria according to the results in the chronic patient population. On this basis, 36 individuals out of 252 (14.3%) could be labeled as chronic at the time of the first questionnaire and 36 (14.3%) three years later. Chronicity was stable in only 14 (5.6%) individuals. Twenty-two individuals who were chronic at the time of the first questionnaire were three years later no longer chronic, whereas 22 other individuals could be described as chronic at that time (Figure 1).

The results of this procedure have to be considered as providing pilot information as they were obtained over a small sample of subjects. Moreover, the analysis used to assess patients' char-

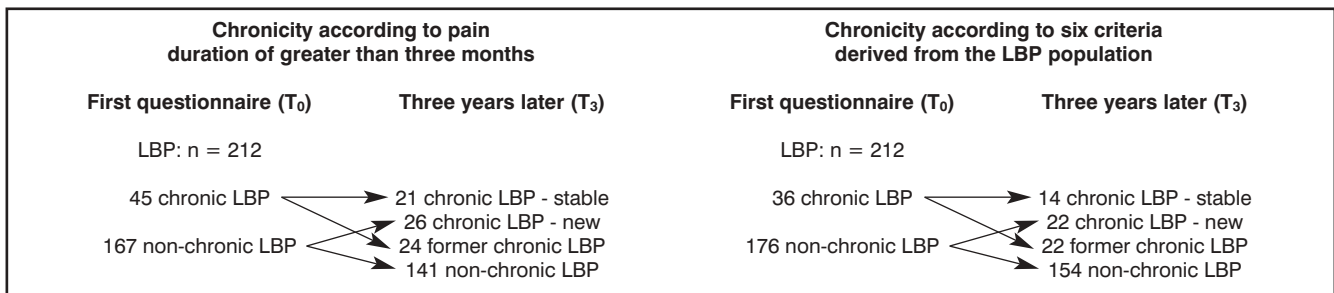


Figure 1. Stability of chronicity according to pain duration and criteria evidenced in a chronic LBP patients' population.

acteristics regarding chronicity refers to a modelling procedure and thus requires further confirmation.

Discussion

In the past decade, the necessity of a biopsychosocial comprehension of non-specific LBP has been emphasized in the literature. The results of our study showed that the therapists' definitions of chronic LBP, and of chronic LBP patients generally, included psychosocial aspects (e.g. psychological difficulties, working conditions). Aside from physical symptoms and signs, these definitions also referred to the possible iatrogenic role of a long course of treatment. This was no longer the case in patients the therapists were actually treating; in this case, clear physical symptoms were of greater significance. This divergence may refer to the therapists' training, based on the classical biomedical model that emphasizes the link between lesion and symptomatology, and to the necessity to exclude specific LBP. It may also relate to the patient-therapist relationship, which usually involves diagnosis and treatment of physical symptoms. Therapists may not be trained to address psychosocial aspects, and patients may not necessarily be ready to consider them.

Patients differed not only in terms of sociodemographic variables but also in terms of the association between pain characteristics and functional problems. However, common characteristics referring to pain (duration, frequency, and intensity), severity of functional problems, and contact with health care services were observed. Thus, duration of symptoms was only one of the elements defining chronicity in this group, and the therapists did not use pain duration to define chronicity either. These results are consistent with other studies showing that functional outcomes are more relevant than the duration of symptoms when it comes to the risk of chronic disability.^{6,8,17}

Pilot information derived from the investigation of chronicity in the employees' population, as measured according to the pain duration criterion, showed an important instability. However, the same was true when chronicity was measured according to the six criteria defined in the population of 'chronic' patients. This instability may be linked to the usual course of LBP: frequently recurrent,^{6,7} with symptom fluctuations.⁴ The size of our sample does not allow us to draw any firm conclusions; however, the results concerning the stability of chronicity are consistent with Von Korff's analysis of the natural course of LBP, suggesting the necessity to define and assess phases of acute, transient, recurrent, and chronic LBP.¹⁷ Furthermore, epidemiological studies have shown that, in currently pain-free individuals, previous LBP episodes and psychological distress are strong predictors of new episodes of LBP.^{18,19}

Chronic LBP raises problems in daily practice, mainly when functional outcomes are unfavourable, thus underlining the necessity to distinguish between pain and disability. The label 'chronic LBP', therefore, refers to a problem patient and a prob-

lem situation.²⁰ This label may assume a particularly negative connotation if it summarizes a series of failures and a poor prognosis. If the term 'chronic' is meant to describe such a problem patient and situation, then its definition should include aspects other than symptom duration, as it was further underlined in the therapists' general definitions.

In conclusion, there is an important discrepancy between theory and practice about the definition of chronic LBP. This discrepancy concerns not only the literature and clinical practice but also clinicians' definitions (generally versus patients they are actually treating). The term 'chronic' LBP, which is currently used, is thus equivocal and may even be a misnomer. Our results raise questions about its meaning and about the misunderstandings it may induce: although 'chronicity' does not always have the same meaning, its widespread use encourages the belief that everybody is talking on common ground.²¹

References

- Nachemson AL. Advances in low back pain. *Clin Orthop* 1985; **200**: 266-278.
- Deyo RA, Phillips WR. Low back pain. A primary care challenge. *Spine* 1996; **21**: 2826-2832.
- Frank A. Low back pain. *BMJ* 1993; **306**: 901-909.
- Deyo RA. Practice variations, treatment fads, rising disability. Do we need a new clinical research paradigm? *Spine* 1993; **18**: 2153-2162.
- Frymoyer JW. Can low back disability be prevented? In: Nordin M, Vischer TL (eds). *Common low back pain: prevention of chronicity*. Baillière's Clinical Rheumatology: 595-606. London: Baillière Tindall, 1992.
- Von Korff M, Deyo RA, Cherkin D, Barlow W. Back pain in primary care. Outcomes at 1 year. *Spine* 1993; **18**: 855-862.
- Rosignol M. Establishing a prognosis for low back problems. In: Ranney D (ed). *Chronic musculoskeletal injuries in the workplace*. Philadelphia: W B Saunders Company, 1997.
- Von Korff M, Saunders K. The course of back pain in primary care. *Spine* 1996; **21**: 2833-2839.
- Andersson GBJ, Pope MH, Frymoyer JW, Snook SH. Epidemiology and cost. In: Pope MH, Andersson GBJ, Frymoyer JW, Chaffin DB (eds). *Occupational low back pain*. St Louis: Mosby, 1991.
- Vischer TL, Fischer W, Robert J, *et al*. Facteurs liés aux douleurs du dos chez des employés d'une entreprise avec évaluation d'une intervention préventive. Comparaison avec un groupe de lombalgiques chroniques. In: Keel P, Perini C, Schütz-Petitjean D, Fischer W (eds). *Chronicisation des douleurs de dos: problématiques, issues*. Basel: Euler Editions, 1996, 85-106.
- Schwartz N, Sudman S (eds). *Context effects in social and psychological research*. New York: Springer-Verlag, 1992.
- Herzlich C. *Santé et maladie - analyse d'une représentation sociale*. Paris: Mouton, 1969.
- Moscovici S. *La psychanalyse, son image et son public*. Paris: Presses Universitaires de France, 1976.
- Angermeyer MC, Matschinger H. Lay beliefs about schizophrenic disorder: the results of a population survey in Germany. *Acta Psychiatr Scand* 1994; **89**: 39-45.
- Blanchet A, Ghiglione R, Massonnat J, Trognon A. *Les techniques d'enquête en sciences sociales*. Paris: Dunod, 1987.
- Statistical Package for Social Sciences (SPSS)*. [Release 6.0, Base System User's Guide.] Chicago: SPSS Inc, 1993.
- Von Korff M. Studying the natural history of back pain. *Spine* 1994; **19**(Suppl 18): S2041-S2046.

18. Papageorgiou AC, Croft PR, Thomas E, *et al*. Influence of previous pain experience on the episode incidence of low back pain: results from the South Manchester Back Pain Study. *Pain* 1996; **66**: 181-185.
19. Croft PR, Papageorgiou AC, Ferry S, *et al*. Psychologic distress and low back pain - evidence from a prospective study in the general population. *Spine* 1996; **20**: 2731-2737.
20. Nordin M, Cedraschi C, Vischer TL (eds). *New Approaches to the Low Back Pain Patient*. Baillière's Clinical Rheumatology: 523-734. London: Baillière Tindall, 1998.
21. Cedraschi C, Reust P, Roux E, Vischer TL. The role of prior knowledge on back pain education. *J Spinal Dis* 1992; **5**: 267-276.
22. Nachemson AL, Bigos SJ. The low back. In: Cruess J, Rennie WJR (eds). *Adult Orthopaedics*. New York: Churchill-Livingstone, 1984: 843-937.
23. Spitzer WO, Leblanc FE, Dupuis M, *et al*. Scientific approach to the assessment and management of activity-related spinal disorders. A monograph for clinicians. Report of the Quebec Task Force on Spinal Disorders. *Spine* 1987; **12(Suppl 7)**: 1-59.
24. Frymoyer JW. Back pain and sciatica. *N Engl J Med* 1988; **318**: 291-300.

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