RESEARCH ARTICLE

Physiotherapy Management of Low Back Pain in India — A Survey of Self-reported Practice

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Abstract

Background. Physiotherapy is commonly used in the management of low back pain and from previous studies appears to be eclectic and not always in line with evidence-based practice. Most previous studies have been conducted in Western countries, and no previous studies have sought to explore physiotherapy management of low back pain in India. **Purpose.** The aim of this study was to explore the self-reported management strategies employed by physiotherapists in India as it is unknown if these are in line with contemporary guidelines. **Methods.** Study design was a self-completed questionnaire, which was sent to the 350 physiotherapists registered with the Indian Physiotherapy Association in the state of Maharashtra in India. To maximize response rate there was repeat e-mailing and telephone follow-up. **Results.** Thirty-eight therapists did not treat patients with back pain and 45 were not working in India and so were excluded. Out of a sample frame of 267 physiotherapists, 186 responded to the e-mailed questionnaire (70%). All therapists reported that they gave some kind of advice to patients, used exercises and electrotherapy, and in addition about half used manual therapy. The majority of therapists used 8–12 sessions of treatment. **Conclusions.** This first mapping of Indian physiotherapy management of low back pain has shown several areas of 'good practice' in line with contemporary guidelines. It also highlighted potential areas of concern regarding evidence-based practice; namely, very common use of passive electrotherapy modalities and potential excessive treatment. This report has implications for physiotherapy practice and education in India. Copyright © 2010 John Wiley & Sons, Ltd.

Accepted 14 December 2009

Keywords

India; physiotherapy management; low back pain

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Published online in Wiley InterScience (www.interscience.wiley.com) DOI: 10.1002/pri.458

Introduction

Low back pain (LBP) is extremely common in the general population in Western countries, with one year prevalence rates between 50% and 76% (Leboeuf-Yde et al., 1996; Walker et al., 2004; Schmidt et al., 2007). Given the high prevalence rate and the effect on sick leave and healthcare costs the financial impact of back pain is substantial in Western countries (Shekelle et al., 1995; Maniadakis and Gray, 2000). Physiotherapy has been commonly used in the management of patients with back pain for many years (CSAG, 1994; Mielenz et al., 1997). This typically involves a variety of interventions, but commonly involves exercise, advice,

Maitland mobilization, the McKenzie method, abdominal exercises, pulsed short-wave diathermy, interferential therapy, ultrasound as well as numerous other less commonly used interventions (Foster et al., 1999; Jackson, 2001; Gracey et al., 2002; Hamm et al., 2003; Poitras et al., 2005; Byrne et al., 2006; Schmidt et al., 2007; Casserley-Feeney et al., 2008; Liddle et al., 2009). It is clear from these surveys that physiotherapy interventions are variable, eclectic and do not always fully accord with contemporary international guidelines (Airaksinen et al., 2006; Van Tulder et al., 2006).

Most of the recent epidemiological evidence has focused on the prevalence, cost implications and management strategies relating to back pain in developed Western countries (Shekelle et al., 1995; Leboeuf-yde et al., 1996; Foster et al., 1999; Maniadakis and Grey, 2000; Jackson, 2001; Gracey et al., 2002; Walker et al., 2004; Hamm et al., 2003; Poitras et al., 2005; Byrne et al., 2006; Schmidt et al., 2007; Casserley-Feeney et al., 2008; Liddle et al., 2009). However, recent evidence has begun to highlight a significant health problem in developing countries. An initial review highlighted lower prevalence rates amongst low-income countries compared with Western countries, especially amongst rural populations (Volinn, 1997). Volinn (1997) also highlighted the fact that the 22 high-income countries, on which the research attention has largely focused, comprise less than 15% of the world's population. However, more recent reports from Tibet (Hoy et al., 2003), Turkey (Cakmak et al., 2004; Gilgil et al., 2005), China (Barrero et al., 2006) and Africa (Louw et al., 2007) suggest that prevalence rates are not that dissimilar from Western countries with one year prevalence in adults in these studies between 36% and 64%. This would suggest that back pain is likely to be an increasing health problem in non-Western countries as well, and one that physiotherapists are likely to encounter there. There is limited data from India, but some suggestions that similar issues apply there as in other countries. A survey of over 11,000 working age adults revealed a prevalence of back pain of 23% (Sharma et al., 2003). Back pain related disability has been associated with anxiety and depression (Pande, 2004). And though conservative management is generally the first choice (Kher et al., 2003), more expensive surgical interventions and investigations are being considered (Lunawat et al., 2002; Ingalhalikar et al., 2003; Sangwan et al., 2006).

Most of the studies of physiotherapy practice have been conducted in Western countries, such as the United States (Battie et al., 1994; Jette et al., 1994; Jette and Delitto, 1997; Mielenz et al., 1997), the UK and Ireland (Foster et al., 1999; Jackson, 2001; Gracey et al., 2002; Byrne et al., 2006; Casserley-Feeney et al., 2008; Liddle et al., 2009), Canada (Li and Bombardier, 2001; Poitras et al., 2005), Denmark (Hamm et al., 2003) and the Netherlands (Van Baar et al., 1998). The authors were not aware of any studies that had surveyed the physiotherapy management of back pain in developing countries, except one study that had been conducted in Thailand (Pensri et al., 2005).

There is limited information about physiotherapy practice in India, which is the second most populous country in the world, with a population of at least 1.4 billion people (World Bank, 1993). Unsurprisingly, there are marked differences in the number of physiotherapists between Western and developing countries, with an estimated median of 1124 physiotherapists per million population in Europe and 16 per million in Asia (Liao et al., 1997). According to a survey by the Sancheti Institute, India (2003), there are 15 000 therapists for a population of 1.4 billion people in India, which makes less than one therapist per million of population. The history of physiotherapy in India is relatively brief, with only 10 colleges in 1984 providing training. By 2009 this had risen to 230 colleges recognized by the Indian Association of Physiotherapists, but many more institutions offer training courses. In the state of Maharashtra, where this survey was conducted, the Indian Association of Physiotherapists recognizes 39 colleges, of which two provide postgraduate courses (IAP website, 2009).

Across the 27 states of India, the training of therapists is not standardized, and can be three to four and a half years. For the treatment of musculoskeletal problems the emphasis is on electrotherapy modalities, such as hot and cold, ultrasound, interferential, short wave diathermy and transcutaneous electrical nerve stimulation (TENS), other passive modalities, such as traction, and general exercises, such as strengthening, stretching and proprioceptive neuromuscular facilitation. On the whole there is only limited introduction to manual therapy on most courses, but many therapists who are interested undertake short manual therapy courses at a postgraduate level. These are either run by Indian therapists who have worked in Australia or the UK, or more recently there has been a growth in officially organized courses by different manual therapy organizations. The

aims of the present study were to investigate the characteristics of physiotherapists who treat back pain in India, the type of patients seen and the range of interventions that they report they use.

Method

Design

The present study was a self-report questionnaire survey of all physiotherapists practicing in the state of Maharashtra in India and registered with the Indian Association of Physiotherapist (IAP). The study was approved by the Health and Wellbeing Ethics Committee of Sheffield Hallam University and by the IAP.

Subjects

The IAP is the governing body of physiotherapists in India. The administrative council of the IAP provided a list of contact details for physiotherapists and a letter authorizing registered members to participate in the study. Three hundred and fifty IAP members practicing in one state in India, the state of Maharashtra, was the sample frame. Therapists registered with IAP but either practicing out of India or not involved in LBP management were excluded.

Materials

A questionnaire format has proved successful in previous studies of physiotherapy management of back pain (Foster et al., 1999; Pensri et al., 2005), and a similar structure was adopted for this study. Before distribution, the questionnaire was piloted with a convenience sample of 12 Indian physiotherapists. These physiotherapists were asked to comment on the format of the questionnaire, its content, wording, instructions and ease of completion. The questionnaire was revised in response to the feedback received; therapists felt questions about length of session, advice given, home exercises and full recovery of function should be included to reflect local issues.

The questionnaire was divided into three sections. The first section included demographic and clinical details about the responding physiotherapists. The second section asked the responding physiotherapists to provide information about the type of back patients most commonly seen. The third section asked the responding physiotherapists to provide details on their current treatment methods in the management of patients with back pain. Respondents were also asked to report the frequency of treatment methods on a Likert scale from 1 to 3; with 1 indicating frequent use and 3 indicating uncommon use.

Procedure

The present study was undertaken from the UK from May 2008 to August 2008 using electronic means of communication. A participant information sheet was e-mailed to all the participants to obtain their consent to participate in the survey. The self-administered questionnaire was e-mailed only after obtaining consent by e-mail from the participants. A reminder e-mail was sent twice and telephone calls were made after three weeks to all non-responders to maximize the response rate. A signed consent form was not included as responding to a questionnaire is deemed to be consenting to participation in the UK.

Data analysis

Descriptive statistics were used for demographic variables. Percentages, frequencies and means were calculated to summarize the responses. Frequencies are represented by valid percentages with missing values not included. The nature of some of the questions was such that responses were not exclusive, and therefore not all frequency data necessarily makes 100% (i.e. >100%). Data analysis was done using Microsoft Excel 2003. We have presented the data as percentage of respondents (n) or (%, n = X); and the only statistical test used was χ^2 analysis for correlation with p-value set at 0.05.

Results

Response rate

The participant information sheet was e-mailed to 350 members of the IAP in the state of Maharashtra. Thirty-eight therapists responded that they were not involved in the management of patients with back pain, and 45 therapists responded that they practiced physiotherapy out of India; thus 267 therapists met the inclusion criteria. Eighty-nine therapists (33%) consented to participate on the first mailing, an additional 58 consented on the second and third mailings, raising the response rate to 55%; and an additional 39 consented after telephone reminders. The final response rate was 186

therapists, which was 70% of those meeting the inclusion criteria.

Physiotherapist information

Out of 186 respondents, 41% (n = 76) were either private practitioners working in their own clinics or visiting patients in their own homes, and 37% (n = 69) worked in private hospitals or someone else's private clinic. The majority of therapists (44%, n = 82) had clinical experience between 5 and 10 years, and 35% (n = 66) had completed a postgraduate degree, in the following specialisms: 56% (37) musculoskeletal, 35% (23) neurological, 9% (6) cardio-respiratory. In addition, 23% (43) had participated in manual therapy workshops. Further details regarding the therapists are provided in Table 1.

Patient information

Fifty-five per cent (n = 102) of therapists reported the most common age group of patients with back pain as 20–40 years, and 45% (n = 85) as 40 years and above. Patients were mostly referred, from either orthopaedics (33%, n = 61) or from GPs (8%, n = 15), or were self-referred (34%, n = 63). Therapists were asked to report the perceived cause of back pain in their patients; more than one cause could be given. Muscle strain and posture were the most common stated cause (70%, n = 130), followed by disc degeneration and nerve entrapment (51%, n = 95) and trauma (27%, n = 50). Therapists were asked to report the stage at which patients with back pain most commonly visited for treatment. Duration of back pain of less than 12 weeks was considered acute and of three months or more as chronic (Airaksinen et al., 2006; Van Tulder et al., 2006). It was reported that patients more commonly came for treatment in the chronic (58%, n = 108) rather than the acute or sub-acute stage (42%, n = 78).

Table 1. Reported professional profiles of the respondents

	Count	Percentage
Postgraduate degree/training		
Musculoskeletal	37	20
Neurological	23	12
Cardio-respiratory	6	3
Manual therapy courses	42	23
Current low back pain caseload		
0–5 patients per day	147	79
5–10 patients per day	31	17
>10 patients per day	8	4
Years of practice		
0–5 years	70	38
5–10 years	81	43
More than 10 years	35	19
Clinical settings		
Private hospital or clinic	68	37
Government hospitals	41	22
Own private clinic	77	41

Treatment details

Advice on prevention of further episodes of back pain was given by 99% (n = 184) of therapists. Providing pain relief (90%, n = 167) and improvement in function and mobility (90%, n = 167) were also very important stated treatment goals. Development of strength and endurance, regaining full range of motion or resuming normal work and sports activities were reported to be additional important treatment goals by 37% (n = 69) of therapists. The majority of therapists (73%, n = 136) reported that on average, patients received between 8 and 12 physiotherapy treatment sessions, 10% (n = 19) between four and eight sessions, 7% (n = 13) less than four sessions and 2% (n = 4) more than 12 sessions. The majority of therapists (69%, n = 128) reported that the average duration of a treatment session was less than an hour, and 31% (n = 58) reported it to be more an hour.

Forty-four per cent (n = 85) of therapists reported that each session comprised electrotherapy, exercise therapy and manual therapy while 53% (n = 98) of therapists reported that each treatment session included only exercise therapy and electrotherapy. Therapists first treatment preferences were exercise therapy (62%, n = 115), electrotherapy (33%, n = 61) and manual therapy (5%, n = 9). However, all therapists reported that they gave some kind of ergonomic or postural advice. Modification of workstation posture and regular performance of home exercises (59%, n = 110) were the most common advice given. A list of reported ergonomic advice is given in Table 2.

The most preferred electrotherapeutic modalities were short wave diathermy (73%, n = 136) and interferential therapy (48%, n = 89). Detailed information on the most common, occasional and rarely used electrotherapeutic modalities are in Figure 1.

Lumbar stabilization exercises were found to be the most commonly used exercise therapy (31%, n = 58) followed by static and dynamic exercises for the back (27%, n = 50) and McKenzie exercises (27%, n = 50). Details of all the exercises are given in Figure 2. Most

Table 2. Reported advice given by respondents

Advice	Count	Percentage
Avoid lifting heavy weights	79	42.5
Work station modifications	109	59
Lifestyle improvement	65	35
Avoid long standing	46	25
Proper bending	46	25
Footwear corrections	45	24
Rest	86	46
Counseling	29	16
Sitting habits	43	23
Regular exercise	109	59
Postural correction	89	48

Percentages do not add up to 100 as therapists could give more than one type of advice.

exercises related to strengthening abdominal and/or lumbar extensor muscles.

Manual therapy was reported to be used by 57% (n = 106) of therapists. Of these 67% (n = 71) used Maitland mobilization and 33% (n = 35) used massage, Mulligan or Cyriax techniques. Therapists who had a postgraduate qualification were significantly more likely to use manual therapy routinely compared with other therapists (64% vs. 16%; χ^2; $p < 0.001$).

Discussion

Until now there was no descriptive survey on physiotherapy management of LBP in India. The present

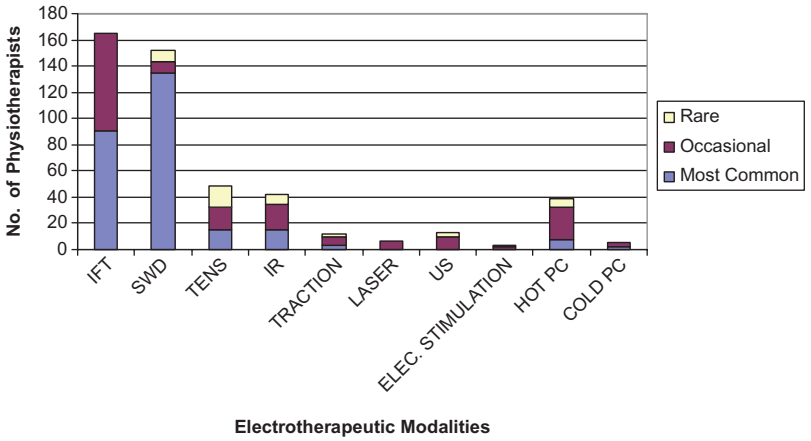

Figure 1 Reported use of electrotherapeutic modalities by number of respondents and frequency of use (N = 186)

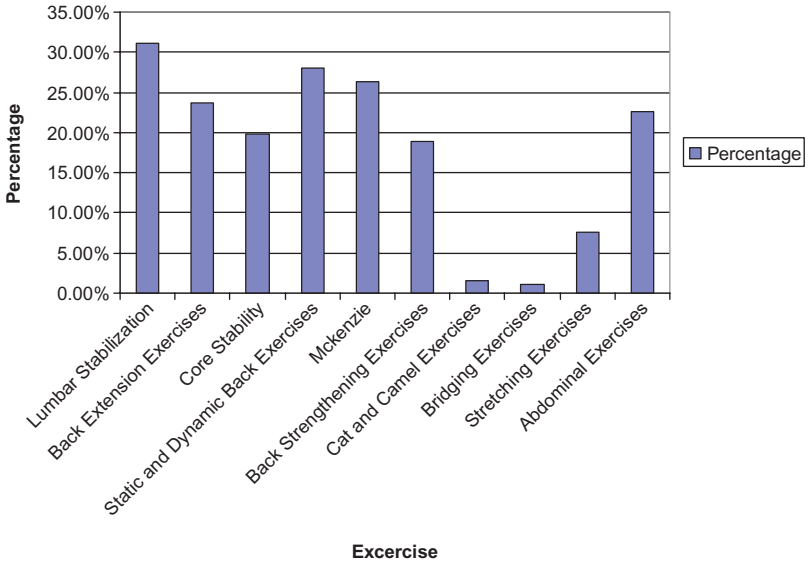

Figure 2 Types of exercises reportedly prescribed by % of respondents. Percentages do not add up to 100 as therapists could give more than one type of exercise

study was conducted with the prime aim of investigating the professional profiles of physiotherapists and to explore the most commonly used treatment techniques for patients with LBP. This survey was entirely based on therapists' perceptions and opinions. Lack of published information on LBP management in developing countries, and specifically India, was the primary reason for undertaking this survey.

It was found that management strategies varied considerably, but that the majority of therapists considered advice on back care, exercises and electrotherapy, especially short-wave diathermy (SWD) and interferential therapy (IFT), as the key elements in the management of LBP, with many also using manual therapy. The patients seen mostly had chronic LBP and most therapists treated patients over 8–12 sessions. Advice focused mostly on ergonomic issues rather than maintaining normal activity and staying at work, which is the emphasis of recent European guidelines (Airaksinen et al., 2006; Van Tulder et al., 2006).

The high percentage of patients with LBP in Indian therapists' caseload was similar to previous studies conducted in Thailand (Pensri et al., 2005) and Bangkok (Khamdej et al., 1993). This result is also consistent with studies conducted in developed countries like the UK and Ireland (Foster et al., 1999) and the United States (Battie et al., 1994). These findings suggest that LBP is a common problem treated by physiotherapists in both developed and developing countries. Clearly the education of physiotherapists should reflect this need.

The majority of patients seeking treatment for LBP in this study were relatively young (20–40 years), with most of them having chronic complains. Management strategies for acute to chronic LBP did not appear to differ, but this question was not directly addressed in our questionnaire. According to the European guidelines management of acute and chronic back pain should be different (Airaksinen et al., 2006; Van Tulder et al., 2006). For acute back pain, the recommendations are for provision of information and reassurance to stay active, the use of simple pain medication, spinal manipulation for those not returning to normal activities and multidisciplinary treatment programmes for those on sick leave long-term (Van Tulder et al, 2006). Certain interventions are specifically not recommended; namely, bed rest, specific exercise, back school, traction, massage and TENS (Van Tulder et al., 2006). For chronic LBP the conservative treatments recommended are: cognitive behavioural therapy, exercises, multidisciplinary treatment programmes, back schools and manipulation (Airaksinen et al., 2006). Again certain interventions are specifically not recommended, which included TENS and a range of thermo-electrical modalities, such as heat/cold, traction and interferential (Airaksinen et al., 2006).

Although the use of exercise was common in our survey and there was some use of manual therapy, the common use of thermo-electrical modalities, which were commonly included in most treatment sessions by most therapists, and which a third saw as the primary intervention, clearly do not follow these guidelines.

In regards to treatment preferences, Indian therapists reported that they mainly used advice, electrotherapy and exercises in the management of LBP. Recent studies in developed countries (Battie et al., 1994; Mielenz et al., 1997; Foster et al., 1999; Jackson, 2001; Gracey et al., 2002; Byrne et al., 2006; Casserley-Feeney et al., 2008; Liddle et al., 2009) have shown that the McKenzie method, Maitland mobilization and therapeutic exercises, especially stabilization exercises, with advice, are the most common management approaches for LBP, though some use of electrotherapeutic modalities is reported. For instance, in a recent survey in the Republic of Ireland of both public and private healthcare sectors mobilizations, home exercise programmes and advice were most commonly used (Casseley-Feeney et al., 2008). Hot pack and interferential were uncommonly used in acute LBP (<20%), but more common in chronic LBP (>60% in private sector, but about 20% in public sector). In repeat audits of clinical practice in a physiotherapy department in the UK the majority of interventions used were mobilization, exercise or advice-based, whereas passive treatments such as traction, ultrasound or hot pack featured in less than 10% of notes (Sparkes, 2005). Key differences appear to be greater use of mobilization in Western countries and greater use of thermo-electrical modalities in India.

The most striking difference here is the much more common use of electrotherapeutic modalities in India, despite their limited evidence base. As indicated by Foster et al. (1999), the rationale for such apparent extensive use of electrotherapeutic methods in the absence of compelling evidence of benefit is unclear. Possible reasons may include relative simplicity and ease of application of such passive modalities, influence of therapists' clinical experience, the emphasis on modalities in undergraduate training in India and

perceived benefits associated with the usage of modern machines both on the part of the patient and the therapist. A significant relation was observed between therapists with postgraduate training and the use of manual therapy in this study. In Canada, it was found that the use of interventions with strong or moderate evidence was high (68%), but that the majority of therapists also used interventions for which there was limited or no evidence (Mikhail et al., 2005). Users of interventions for which there was high evidence of effectiveness had graduated more recently or taken a higher number of postgraduate courses.

This study also highlighted the high number of treatment sessions given by Indian physiotherapists. Most patients received 8–12 treatment sessions compared with five to six sessions in Western countries (Jette and Dellito, 1997; Van Baar et al., 1998; Foster et al., 1999; Casserley-Feeney et al., 2008), but as low as two in private practice in Ireland (Casserley-Feeney et al., 2008). This variation may be due to the differences in patient characteristics like age, type of treatment (active or passive) and treatment strategies (traditional or evidence based) between practice in India and that in the developed countries. But this may indicate over-treatment and wasteful use of resources. However, other reports from the West suggest equally high numbers of treatment sessions, for instance 11 therapy visits (Jette et al., 1994), and continuation of treatment despite failure to improve over three months (Pincus et al., 2006). In terms of efficient use of resources, it would be desirable to establish an optimal level of physiotherapy treatment sessions for particular problems to identify what might be deemed as excessive and wasteful levels of intervention.

There are several limitations to this study that should be recognized. The current data was entirely based on therapists' self-report and memory. Thus, the profiles of LBP patients and the management techniques used must be inferred with some caution. Another limitation of this study is the applicability of the current findings to other developing countries as they may have their own culture, socioeconomic conditions, physiotherapy education and own treatment philosophies in the management of LBP. Opinions were sought from only one state in India and it cannot be known how practice habits are local in nature and not generalizable to other states, with different sociodemographic and cultural variations and local educational influences. Data was collected from only one out of 27 states in India, and one in which the quality of undergraduate and postgraduate physiotherapy education maybe higher than other states. These findings cannot be extrapolated to the whole of India. Furthermore, therapists provided their own description of the treatment they gave and from this description there appears to be plenty of room for overlap. For instance, lumbar stabilization, back extension, core stability, static and dynamic, back strengthening, bridging and abdominal exercises could all be seen as slight variations on the similar theme of strengthening the trunk muscles. In which case the virtually comprehensive use of this intervention is rather startling, with only McKenzie exercises being mentioned as an alternative by some. There is no mention of other types, such as general exercises, work-hardening, or aerobic.

A number of research, clinical and educational implications are forthcoming from this work. Clearly, so little is known about the prevalence of LBP in India, how many with back pain seek treatment, why they seek treatment, how they are treated if they do seek treatment and the effectiveness of that treatment that much more research is needed. Perceptions of both patients and therapists about treatment interventions and back pain would also be a useful area of further research. This study has identified a high use of passive modalities that do not accord with present international guidelines; it would be useful to understand both patients' and therapists' perspectives on the use of passive versus active therapeutic interventions.

This questionnaire has suggested several areas that might be defined more clearly before further such data collection is performed. The questionnaire could be improved upon before further data collection is attempted. In its present form, free responses allowed too much overlap, especially regarding exercises — specific definition of exercise regimes would limit this overlap. Furthermore, we did not attempt to determine if there were differences between suggested management in acute and chronic LBP. Although some management strategies used by these Indian therapists concur with evidence-based healthcare, some, such as the use of electrotherapeutic modalities and excessive treatment episodes, do not. It would be useful to know what the main influences on current practice are, and if, as has been suggested before in other contexts (Turner and Whitfield, 1999), these are educational then this clearly has implications for undergraduate training of physical therapists in India. It is important

that physiotherapy in India does not make the same mistake initially made in the West that passive treatments would ultimately benefit the patient. The levels of autonomy of practice may also differ in Western countries and India; another area for research to explore. These findings were from one of the 27 states of India, in which the level of physiotherapy education may not be representative of all states. Further mapping of physiotherapy practice in all Indian states would appear to be relevant.

Conclusion

In conclusion, the current survey has provided an overview of physical therapy management of LBP in India. The patients were mostly young with chronic LBP, and treated over 8–12 sessions. They were almost comprehensively given advice, exercises and electrotherapy modalities, and in addition about half were given manual therapy. Exercise description varied considerably, but most exercises were about strengthening trunk muscles. Short wave diathermy and interferential therapy were the most commonly used passive modalities. This survey has highlighted similarities in practice in developing countries and some differences in practice compared to developed countries.

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Appendix

Questionnaire

Following are a few questions regarding treatment of patients with low back pain. The questionnaire is divided into three sections, demographic information, patient information and treatment information. Please attempt all questions according to the information provided.

Please [X] as appropriate

1. Physiotherapist Information
   a) Clinical Setting
      - ☐ Private clinic under some other therapist ☐
      - ☐ Government hospital ☐
      - ☐ Personal (your own clinic) ☐
   b) Years of practice
      - ☐ 0–5 ☐
      - ☐ 5–10 ☐
      - ☐ More than 10 years ☐
   c) Postgraduate Degree/training
      - ☐ Musculoskeletal ☐
      - ☐ Neurological ☐
      - ☐ Cardio-respiratory ☐
      - ☐ Other (please state) ☐

d) Current LBP caseload
- ☐ 0–5 patients/day ☐
- ☐ 5–10 patients/day ☐
- ☐ More than 10 patients/day ☐

2. Patient Information

a) Ratio of male and female patients
- ☐ Male ☐
- ☐ Female ☐

b) Age group (rank 1, 2 and 3, 1 being most common, 2 being sometimes and 3 being least common)
- ☐ Less than 20 years ☐
- ☐ 20–40 years ☐
- ☐ Above 40 years ☐

c) Source of referrals
- ☐ Orthopedic Surgeon ☐
- ☐ GP ☐
- ☐ Self ☐

d) Common diagnosis (if applicable)
- ☐ Most common ☐
- ☐ Occasional ☐
- ☐ Least common ☐

e) LBP chronicity (in what stage do patients mostly come to you? Rank 1 and 2
- ☐ Acute / Subacute (less than 12 weeks) ☐
- ☐ Chronic (more than 12 weeks) ☐

3. Information of treatment interventions

a) Treatment goals
- ☐ Pain relief ☐
- ☐ Improve function and mobility ☐
- ☐ Other (please state) ☐

b) Average treatment sessions required
- ☐ 0–4 ☐
- ☐ 4–8 ☐
- ☐ 8–12 ☐
- ☐ More than 12 ☐

c) Average duration of each treatment session
- ☐ Less than 1 hour ☐
- ☐ More than 1 hour ☐

d) Each session comprises of
- ☐ Electrotherapy ☐
- ☐ Manual therapy ☐
- ☐ Exercise therapy ☐
- ☐ All of the above ☐

e) First treatment preference
- ☐ Manual therapy ☐
- ☐ Electro therapy ☐
- ☐ Exercise therapy ☐

f) Electrotherapeutic modalities used (state which modalities)
- ☐ Most frequent ☐
- ☐ Sometimes ☐
- ☐ Rare ☐

g) Exercise therapy (state which exercises)
- ☐ Most frequently used ☐
- ☐ Sometimes ☐
- ☐ Rare ☐

h) Manual therapy (state which)
- ☐ Maitland ☐
- ☐ McKenzie ☐
- ☐ Other ☐

i) Advice (state what is given)
- ☐ Most frequent ☐
- ☐ Some times ☐
- ☐ Rare ☐

j) Home exercises and ergonomic advice (please specify any home exercises and ergonomic advice given to the patients)

k) Frequency of home exercises
- ☐ Twice a day ☐
- ☐ Three times a day ☐
- ☐ Other ☐

l) Recovery and follow up (please give details on average time of recovery and restoration of functions)