

Health Maintenance Care in Work-Related Low Back Pain and Its Association With Disability Recurrence

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BACKGROUND FROM DAN MURPHY:

This study used Hazard Ratios. Hazard ratios compare two treatments. A Hazard Ratio of 2.0 means the rate is twice the rate of the other group.

FROM ABSTRACT:

Objectives: To compare occurrence of repeated disability episodes across types of health care providers who treat claimants with new episodes of work-related low back pain (LBP).

Method: A total of 894 cases followed 1-year using workers' compensation claims data. Provider types were defined for the initial episode of disability and subsequent episode of health maintenance care.

Results: Controlling for demographics and severity, the hazard ratio [HR] of disability recurrence for patients of physical therapists (HR = 2.0) or physicians (HR = 1.6) was higher than that of chiropractor (referent, HR = 1.0), which was similar to that of the patients non-treated after return to work (HR = 1.2).

Conclusions: In work-related nonspecific LBP, the use of health maintenance care provided by physical therapist or physician services was associated with a higher disability recurrence than in chiropractic services or no treatment.

KEY POINTS FROM THIS STUDY:

- 1) Low back pain (LBP) is "one of the costliest work-related injuries in the United States in terms of disability and treatment costs." "An additional, important component of the human and economic costs is the recurrence of LBP."
- 2) There has been little success in preventing recurrent LBP.
- 3) "Health maintenance care is a clinical intervention approach thought to prevent recurrent episodes of LBP. It conceptually refers to the utilization of health care services with the aim of improving health status and preventing recurrences of a previous health condition." Health maintenance care is defined as "treatment. . . after optimum recorded benefit was reached."
- 4) "Health maintenance care can include providing advice, information, counseling, and specific physical procedures. Health maintenance care is

predominantly and explicitly recommended by chiropractors” who advocate health maintenance procedures to prevent recurrences.

5) Chiropractors focus more on return to work while physicians focus more on pain control.

6) “An association between specific type(s) of treatment or providers and significant recurrence of a condition (measured as recurrent work disability) could imply an important advancement in the treatment of work-related back injuries.”

IN THIS STUDY

7) This study consisted of 894 cases, median age of 41 years, 32% women.

8) Temporary total disability was defined as the worker completely unable to work on a temporary basis due to health related impairment.

9) The health maintenance care was defined as the period after the initial disability episode had ended and the person had returned to work for at least 14 days.

10) Recurrent disability was defined as resumption of temporary total disability after a period of health maintenance care.

11) Recurrent disability was defined as the resumption of at least 15 consecutive days of temporary total disability payments following the health maintenance care period.

12) Chiropractic patients had “less expensive medical services and shorter initial periods of disability than cases treated by other providers.”

13) Taking opiate pain drugs during the period of health maintenance care was significantly associated with recurrent disability (more than doubled the risk).

14) “Provider type during the health maintenance care period was significantly associated with recurrent disability with the only or mostly physical therapy group having the highest proportion of recurrent disability (16.9%) and the only or mostly chiropractor (6.5%) and the no (5.5%) health maintenance care groups having the lowest proportion of recurrent disability.”

15) Chiropractic patients who did suffer a recurrence did so 29 days later than the physical therapy or physician patients who suffered a recurrence.

16) “Compared with the only or mostly chiropractor (referent), the groups of only or mostly physical therapy and only or mostly physician had significantly higher HRs (2.0 and 2.7 respectively).” USING ALTERNATIVE ANALYSIS

- 17) "Compared with receiving treatment only or mostly by chiropractors during the health maintenance care period, receiving treatment by physical therapists, physicians, or a combination of both tended to result in significantly higher HRs of recurrent disability."
- 18) "After controlling for demographics and severity indicators, the likelihood of recurrent disability due to LBP for recipients of services during the health maintenance care period by all other provider groups was consistently worse when compared with recipients of health maintenance care by chiropractors."
- 19) "Care from chiropractors during the disability episode ("curative"), during the health maintenance care period (main exposure variable, "preventive"), and the combination of both (curative and preventive) was associated with lower disability recurrence HRs."
- 20) "This clear trend deserves some attention considering that chiropractors are the only group of providers who explicitly state that they have an effective treatment approach to maintain health."
- 21) "Our results, which seem to suggest a benefit of chiropractic treatment to reduce disability recurrence, imply that if the benefit is truly coming from the chiropractic treatment, there is a mechanism through which care provided by chiropractors improves the outcome." **[Very Important]**
- 22) These authors speculate that "the main advantage of chiropractors could be based on the dual nature of their practice." **[regular care + maintenance care]**
- 23) "After controlling for severity and demographics, no health maintenance care is generally as good as chiropractor care." **[Key Point]**
- 24) As a "hypothesis, chiropractors might be preventing some of their patients from receiving procedures of unproven cost utility value or dubious efficacy."
- 25) Chiropractors argue that they provide treatment to the "whole patient." This approach may provide "more opportunities for a provider-patient relationship that improves communication, and likely emphasizes the importance of return to work over symptom control, and focuses on psychosocial issues that have been demonstrated to be important in the evolution of LBP disability."
- 26) Chiropractic patients had "fewer surgeries, used fewer opioids, and had lower costs for medical care than the other provider groups."
- 27) "After controlling for demographic factors and multiple severity indicators, patients suffering nonspecific work-related LBP who received health services mostly or only from a chiropractor had a lower risk of recurrent disability than the risk of any other provider type."

28) "Our findings seem to support the use of chiropractor services, as chiropractor services generally cost less than services from other providers."

COMMENTS FROM DAN MURPHY:

This is a great study. It shows that in the treatment of Workers Compensation low back injury that:

- 1) Chiropractically managed patients are significantly less likely to have a recurrence of low back pain.
- 2) Chiropractically managed patients that do have a recurrence of low back pain do so an average of 29 days later than those treated by a physical therapist or medical doctor.
- 3) Chiropractically managed patients have shorter periods of disability, meaning they returned to work earlier.
- 4) Chiropractic patients had "fewer surgeries, used fewer opioids, and had lower costs for medical care than the other provider groups."
- 5) Chiropractors treat the "whole patient," providing "more opportunities for a provider-patient relationship that improves communication, and likely emphasizes the importance of return to work over symptom control, and focuses on psychosocial issues that have been demonstrated to be important in the evolution of LBP disability."
- 6) The reduced recurrence of low back disability is the consequence of "chiropractic treatment."
- 7) No health maintenance care is generally as good as chiropractor care.
- 8) "Chiropractors are the only group of providers who explicitly state that they have an effective treatment approach to maintain health."
- 9) Chiropractic appears to be an "important advancement" in the treatment of work-related back injuries.
- 10) This study certainly supports the concept and value of chiropractic maintenance care.

Provider Type	Increased Risk Compared to Chiropractic Analysis #1	Increased Risk Compared to Chiropractic Analysis #2	% of Patients with Recurrent Disability During Entire Period (curative + prevention)	% of Patients with Recurrent Disability During Maintenance (prevention)
Chiropractor	None	None	5.7%	6.5%
No Treatment	20%	?	5.5%	5.5%
Medical Doctor	60%	170%	16.7%	?
Physical Therapist	100%	100%	?	16.9%