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Joseph Michael Teague Mr.

University of Vermont Larner College of Medicine

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Managing Chronic Low Back Pain: Getting Patients Started

Joseph Teague

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Preceptor: Dr. Jacob Shaw

South End Health Center



Problem Identification

- Back Symptoms are the 10th leading reason for ambulatory care visits in the US [1]
- Spinal Disorders comprise the 3rd leading primary diagnosis category for ambulatory care visits in the US [1]
- In the US, the leading spine problem diagnoses were other and unspecified disorders of the back (52.9%) [2]
- Low back pain has the 7th greatest global burden of disease in terms of disability adjusted life years [3]
- Adults with chronic low back pain have higher odds of unemployment, receiving disability, having a mean household income < \$20,000, obesity, smoking, and depression [4]
- Fear and anxiety increases the relationship between chronic back pain and disability. Additionally, catastrophizing negative perceptions of pain experienced during activity increases the relationship between pain and disability for those who are physically active. Such chronic back pain patients may require psychological intervention and support for negative perceptions of pain [5].
- Physical therapy significantly reduced chronic low back pain intensity and disability compared to usual care [6]. Physical therapy is effective at decreasing chronic low back pain and improving function in adults, especially in health care populations [7].
- There is evidence that pain neuroscience education (PNE) improves disability in the short term [8]
- Behavioral therapy approaches are effective in low back pain patients in altering pain perception and helping patients to regain their functionality [9]



Public Health Costs

- US health expenditures for adults with chronic low back pain have been progressively increasing, and were estimated at \$6,000 per person in 2005, totaling \$102 billion [2]
- Participation in guided physical therapy to treat low back pain may decrease healthcare utilization and costs [10]
- In the US, low back pain accounts for more lost workdays than any other occupational musculoskeletal condition [11]
- 15.4% of the workforce age population reported spinal pain and an average 10.5 lost work-days in the previous year [12]
- In the US, health expenditures related to low back pain combined with loss of work productivity related to low back pain may be as high as \$635 billion [13]
- Cognitive behavioral therapy may reduce sick leave and costs due to sick leave [6]

Community Perspective

“30-40% of my clients are low back pain patients.”

“There are a lot of specialized evidence-based therapies, like the McKenzie Method for example. Some are better than others, but what they all get right is movement, which is so important.”

“It’s not unusual for a patient to have a 50% compliance rate, as in attend half of all scheduled sessions. Also, compliance with at home exercises goes down the more exercises you assign.”

“I don’t tell patients they should do physical therapy or cognitive behavioral therapy; I provide them many evidence-based options, so they feel empowered that these choices are their own.”

Dr. Richard Pinckney
Local Adult Primary Care Internal Medicine Physician

“Patients may not feel comfortable or have the resources for the ‘Rolls-Royce’ most intense options for physical therapy or cognitive behavioral therapy. I provide resources and have a library for those who want to get involved in smaller ways.”

“Pain is ok. Don’t let it stop movement. When it comes to low back pain - tease it - touch it - nudge it.”

Keith Karpinski
Local Physical Therapist

“It’s easy to get discouraged if you feel like you’re not meeting expectations, I like to provide options I think can help and say, ‘I like all of these; if all is too much, go for some - salt and pepper one or two into the day - or do one, unless you can’t that day. It’s there to help, not discourage.’”

“While 3-5% of my patients have chronic low back pain, chronic low back pain accounts for about 10-20% of my visiting hours.”





Intervention and Methodology

- Provide a handout to chronic low back pain patients utilizing motivational interviewing techniques such as providing a menu of options, encouraging baby steps, and shared decision making
- The menu of options will include numerous evidence-based interventions that can treat chronic low back pain.
 - The handout will then deep dive two interventions – physical therapy and cognitive behavioral therapy (CBT)
- Provide a continuum from most intense to least intense options for physical therapy
 - Most intense = information on local physical therapists
 - Provide examples of specialized guided physical therapy and highlight benefits
 - Least intense = provide a suggested at home regimen with additional resources for more self-management
 - Note that the regimen is only to offer help and guidance, it should never discourage
- Provide a continuum from most intense to least intense options for CBT
 - Most intense = information on local group CBT programs
 - Least intense = information on local libraries for suggested literature, as well as suggested phone applications and online resources

Limitations

- Efficacy requires active participation and effort from patients
- Given time constraints, follow up evaluation of efficacy deferred to the next cohort of students
- Follow up evaluation, even of objective measures would rely on patient narrative regarding home much the resources provided were utilized
- Resources provided may require travel and computer access, providing difficulty for the most resource-limited

Evaluation of Effectiveness

- A future study could serve as a follow-up study that surveys physicians for how much value the handout brought to their clinic regarding
 - Visits and/or Visiting hours dedicated to Chronic Low Back Pain
- A future study could serve as a follow-up study that surveys patients who received the handout compared to those who did not regarding the following:
 - Pain intensity and duration
 - Utilization of health care and health care expenditure
 - Disability status
 - Employment status
 - Mental health

EXAMPLE DATA

The handout favorably improved the following areas:

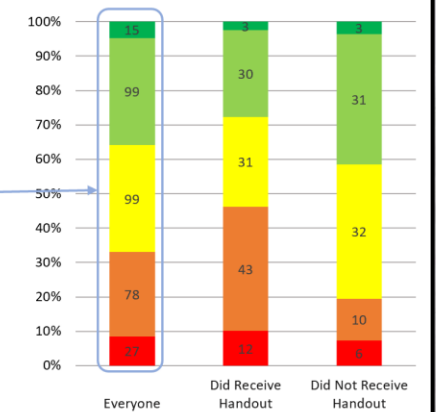
	Responses per Question										
	1 Pain Intensity	2 Pain Duration	3 Utilization of Health Care	4 Health Care Expenditure	5 Employment status	6 Job Productivity	7 Disability Status	8 Mental Health	9 Physical Activity	10 Activities of Daily Living	Total
Strongly Agree (5)	6	0	0	0	0	0	2	2	2	3	15
Agree (4)	20	8	6	8	5	4	8	13	13	14	99
Neutral (3)	6	12	15	9	10	11	10	10	9	7	99
Disagree (2)	4	11	7	9	9	9	9	5	6	9	78
Strongly Disagree (1)	1	2	2	6	4	4	5	2	1	0	27
Mean Agreement Score (1-5)	3.7	2.8	2.8	2.6	2.6	2.5	2.8	3.3	3.3	3.3	3.0

Supporter Mean Agreement Score (1-5)	3.6	2.5	2.7	2.1	2.5	2.4	2.5	3.1	3.0	2.8	2.7
Opposer Mean Agreement Score (1-5)	3.8	3.4	2.8	2.8	2.9	2.7	2.9	3.4	3.4	3.6	3.2

Supporter vs Opposer Fischer p-value < .05 (5&4)*

Responses per Question

Total Responses



Recommendations for Future Projects

- A follow up project could investigate the efficacy of this handout
- While this handout mentions numerous evidence-based interventions for chronic low back pain; it deep dives two – physical therapy and cognitive behavioral therapy
- Future projects could select from the many other interventions to deep dive, including: Acupuncture, Spinal Manipulation, Yoga
- Future projects could apply the same interventions that this project did to different forms of chronic pain, including: Fibromyalgia, Inflammatory Arthritis, Neuropathy



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