

A survey Based Analysis of Low Back Pain and Best Practice Care

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ABSTRACT

The main symptom of low back pain is pain. Pain does not meet the definition of impairment or abnormality, but if the individual actively aggravates pain and avoids or reduces his/her activities, pain may lead to disability. Nonspecific low back pain appears to be caused primarily by disrupted function or painful musculoskeletal dysfunctions. The World Health Organization (WHO) provides the most comprehensive definition: A disability is defined as any restriction or lack (due to impairments) of ability to perform an activity in the manner or range considered normal for a human being (WHO 1980). Back pain disability involves both physical dysfunctions and illness behavior. Motor and physiological activity are always involved in behavior, and physiological processes always have behavioral manifestations. Using survey-based analysis, we attempted to discover the causes and associated problems of low back pain in this study.

KEYWORDS: LBP, rehabilitation, radicular pain, magnetic resonance imaging, Anthropometry

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INTRODUCTION

The main symptom of low back pain is pain. Pain does not meet the definition of impairment or abnormality, but if the individual actively aggravates pain and avoids or reduces his/her activities, pain may lead to disability. Nonspecific low back pain appears to be caused primarily by disrupted function or painful musculoskeletal dysfunctions. The World Health Organization (WHO) provides the most comprehensive definition: A disability is defined as any restriction or lack (due to impairments) of ability to perform an activity in the manner or range considered normal for a human being (WHO 1980). Back pain disability involves both physical dysfunctions and illness behavior. Motor and physiological activity are always involved in behavior, and physiological processes always have behavioral expressions. ⁽¹⁾ McCaffery and Beebe defined pain as "whatever the experiencing person says it is, existing whenever he says it does". Merskey and Bugduck mentioned the consensus definition of pain developed by the International Association for the Study of Pain is "*unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage*".⁽²⁾ Chronic low back pain is the most common cause of long-term

disability in middle-aged people in many countries.⁽³⁾ Chronic low back pain is difficult to treat, and patients are frequently referred for multidisciplinary care.⁽⁴⁾ Disabling chronic pain is now viewed as the result of multiple interconnected physical, psychological, social, or occupational factors in multidisciplinary biopsychosocial rehabilitation.^(5,6) Many nonrandomized studies and non-systematic reviews have been conducted to evaluate multidisciplinary treatments for chronic pain; both are prone to bias.⁽⁷⁾

Pain can be classified as either:

1. Acute
2. Chronic

Acute Pain

Acute pain is a direct biological response to disease, inflammation, or tissue damage that lasts for less than a month. It can be continuous or recurring (e.g., sickle cell disease). Acute pain contributes to the long-term well-being of humans and higher animals by alerting them to an injury or condition that requires treatment. Acute pain in humans is frequently accompanied by anxiety and emotional distress; however, its cause is usually successfully diagnosed and treated. Acute pain is referred to as "eudynia" by some researchers. In the Manual of Pain Management, Praveen K.

A survey Based Analysis of Low Back Pain and Best Practice Care

stated that acute pain is one of the basic adaptations that most species have to warn the organism of internal and external stimuli that may be harmful to the organism's well-being. Although the painful sensation may be present after the injury, it usually worsens as the severity of the injury or disease worsens. Continued noxious stimulation can also cause increased sensitivity, sensitization, and severe pain to even mildly painful stimuli. Acute pain encourages healing by signaling the organism to seek shelter, or in the case of humans, medical care. The sensitization process can occur in both the peripheral and central nervous systems. Acute pain tends to fade as the healing process progresses.

Chronic Pain

Chronic pain, on the other hand, serves no biological purpose. It is defined broadly as pain that lasts more than a month after a tissue injury heals; pain that recurs or persists for three months or longer; or pain related to a tissue injury that is expected to continue or worsen. Chronic pain can be continuous or intermittent; in either case, it frequently causes weight loss, sleep disturbances, fatigue, and other depressive symptoms. According to a New York Times article, chronic pain is the most common underlying cause of suicide. Chronic pain, unlike acute pain, is resistant to most medical treatments. It is sometimes referred to as "maldynia" and is considered a separate disorder. Chronic pain occurs when pain symptoms last longer than the natural course of the disease process, which can range from months to years. Chronic pain, in most cases, serves no vital purpose for the organism suffering from it, and can even be detrimental to the organism's survival and well-being.

Chronic low back pain (CLBP)

Chronic low back pain is a topic that has been extensively researched in numerous scientific studies. As a result, this chapter will focus on high-quality papers and provide a brief summary of the current state of knowledge regarding CLBP.

Basic Epidemiology

In industrialized countries, the lifetime prevalence of nonspecific (common) low back pain is estimated to be 60-70% (1-year prevalence 15-45%, adult incidence 5% per year). The prevalence rate in school-age children approaches that seen in adults.^(8,9) It increases from childhood to adolescence⁽¹⁰⁾ and peaks between ages 35 and 55.⁽¹¹⁾ The correlation between symptoms, pathology, and radiological appearances is poor. In approximately 85% of cases, pain cannot be attributed to pathology or neurological encroachment. Recent research has suggested that a genetic influence on back pain susceptibility may play a role.^(12, 13) Although acute low back pain is usually thought to be self-limiting, 2-7% of people develop chronic pain. Whereas the vast majority of episodes of back pain are associated with timely return to work,⁽¹⁴⁾ Back pain, both recurrent and chronic, is widely acknowledged to account for a significant proportion of total worker absenteeism. The 85% of people who are absent from work for short periods (7 days) account

for roughly half of the days lost; the other half is accounted for by the 15% who are absent for one month. This is reflected in the social costs of back pain, where the 10% with chronic pain and disability account for 80% of the health care and social costs.⁽¹⁵⁾ These statistics, however, are often based on the clinically convenient classification of acute and chronic back pain, which does not fully reflect the population's pattern of back pain. Recent research indicates that back pain manifests as an untidy pattern of symptomatic periods interspersed with less troublesome periods, though symptoms (and associated disability) can become persistent in some people. Over a 12-month period, approximately two thirds of people are likely to have pain relapses, and approximately one-third are likely to have work absence relapses.⁽¹⁶⁾ When it comes to prevention, these issues present interpretative challenges because back pain and its consequences tend to occur in an episodic fashion.⁽¹⁷⁾ Importantly, back pain should be regarded as a problem affecting people of all ages and from all walks of life. Furthermore, it is critical to distinguish between the presence of symptoms, the seeking of care, the loss of employment, and disability; each has a different prevalence rate and is influenced by a different balance of biological, psychological, and social factors.^(15,18) The concept of 'risk' for the development of low back pain is clearly relevant to prevention, but the subject is poorly understood and inconsistently documented. A previous history of back pain is the most powerful risk indicator for a new episode.⁽¹⁶⁾ Heavy physical work, frequent bending, twisting, lifting, pulling, and pushing, repetitive work, static postures, and vibrations are the most frequently reported risk indicators.⁽¹¹⁾ Distress, depression, beliefs, job dissatisfaction, and mental stress at work are all psychosocial risk indicators.^(11, 19, 20) However, there is limited evidence for these (reported) risk factors, and those that have been well documented frequently have small effect sizes, limiting the magnitude of preventive interventions.

Causes of Low Back Pain

General Factors Life-style Physical Activity Work-Place Socioeconomic Circumstances Psychosocial Risk Factors.

METHODOLOGY

We read about sixty literatures from various sources, mostly tertiary, to gain knowledge and ideas about primary care of low back pain. To obtain information about primary care of low back pain, we primarily conducted a survey of low back pain patients, with questionnaires developed based on a review of the literature.

Patients' questionnaires focused primarily on lifestyle causes of low back pain, severity of low back pain, and personal care for low back pain.

The formula for calculation was-

- **Total score= SUM (points for all10 sections)**
- **Disability in percent= (totalscore) / 50 *100**
- **Percentage of respondent= Number of respondent /**

A survey Based Analysis of Low Back Pain and Best Practice Care

totalnumber of patients * 100

RESULT & DISCUSSION

SAMPLE: PATIENTS

1. Pain Intensity

Question No.	Points	No. of patient/ Respondents	Percentage (%)
1	(0) I can tolerate the pain I have without having to use pain killers.	5	27.77
	(1) The pain is bad but I managewithout taking pain killers.	3	16.67
	(2) Pain killers give complete relief from pain.	5	27.77
	(3) Pain killers give moderate relief from pain.	1	5.56
	(4) Pain killers give very little relief from pain.	3	16.67
	(5) Pain killers have no effect on thepain and I do not use them.	1	5.56



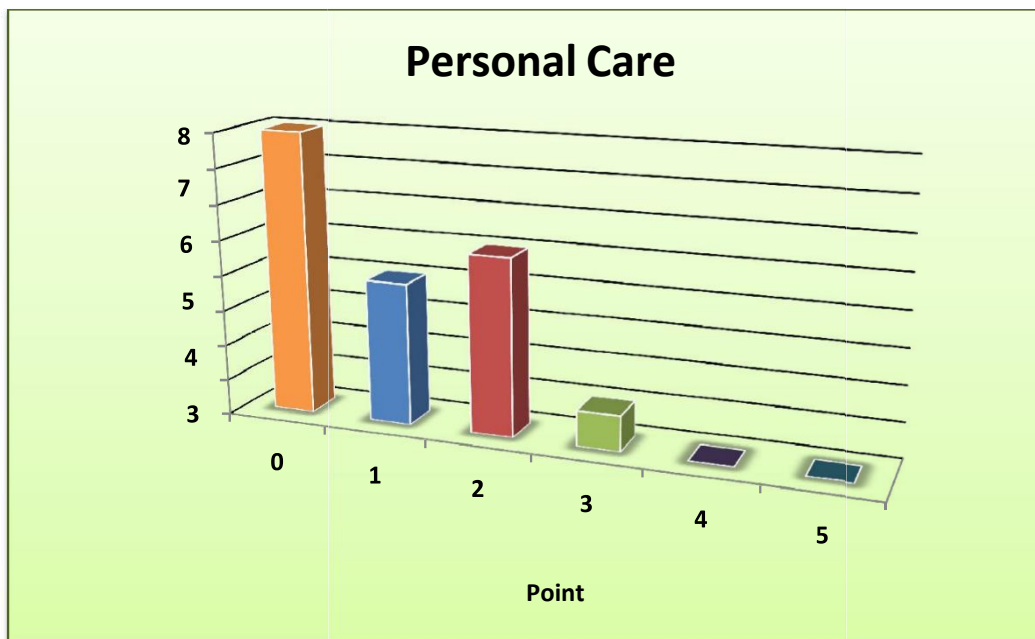
According to the graph above, 27.22% said they can tolerate pain without using pain killers, 16.67% said pain is bad but they can live with it without using pain killers, 27.77% said pain killers provide complete relief from pain, 5.56% said pain killers provide moderate relief from pain, 16.67% said

pain killers provide very little relief from pain, and 5.56% said pain killers have no effect on pain and they do not use them. The majority of respondents use pain relievers to relieve their pain, and the majority of people use pain relievers to relieve pain, according to a literature survey.

2. Personal Care

Question No.	Points	No. of patient/ Respondents	Percentage (%)
2	(0) I can look after myself normallywithout causing extra pain.	8	44.44
	(1)I can look after myself normally, but itcauses extra pain.	4	22.22
	(2) It is painful to look after myself and Iam slow and careful.	5	27.77
	(3) I need some help but manage mostof my personal care.	1	5.56
	(4) I need help every day in mostaspects of self-care.	0	0
	(5) I do not get dressed wash withdifficulty and stay in bed.	0	0

A survey Based Analysis of Low Back Pain and Best Practice Care

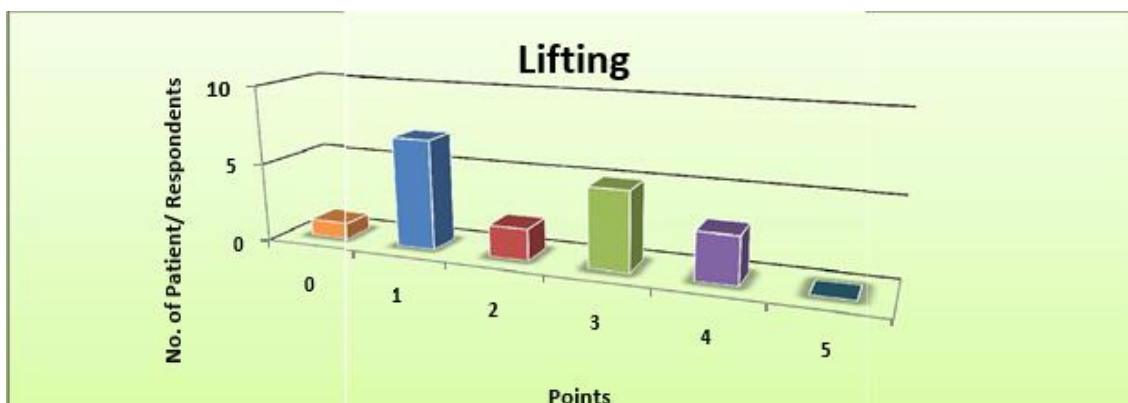


According to the graph above, 44.44% of respondents said they can look after themselves normally without causing extra pain, 22.22% said they can but it causes extra pain, 27.77% said it is painful to look after themselves and they are slow and careful, 5.56% said they need some help but manage

most of their personal care, and none of them answered for points (4) and (5). (5). Based on the graph, we concluded that the majority of respondents can go about their daily lives without experiencing any additional pain.

3. Lifting

Question No.	Points	No. of patient/ Respondents	Percentage (%)
3	(0) I can lift heavy weights without extrapain.	1	5.56
	(1) I can lift heavy weights, but it givesextra pain.	7	38.89
	(2) Pain prevents me from lifting heavyweights off the floor, but I can manage if they are conveniently positioned for example on a table.	2	11.11
	(3) Pain prevents me from lifting heavy weights, but I can manage light to medium weights if they are conveniently positioned.	5	27.77
	(4)I can lift only very light weights.	3	16.67
	(5)I cannot lift or carry anything at all.	0	0



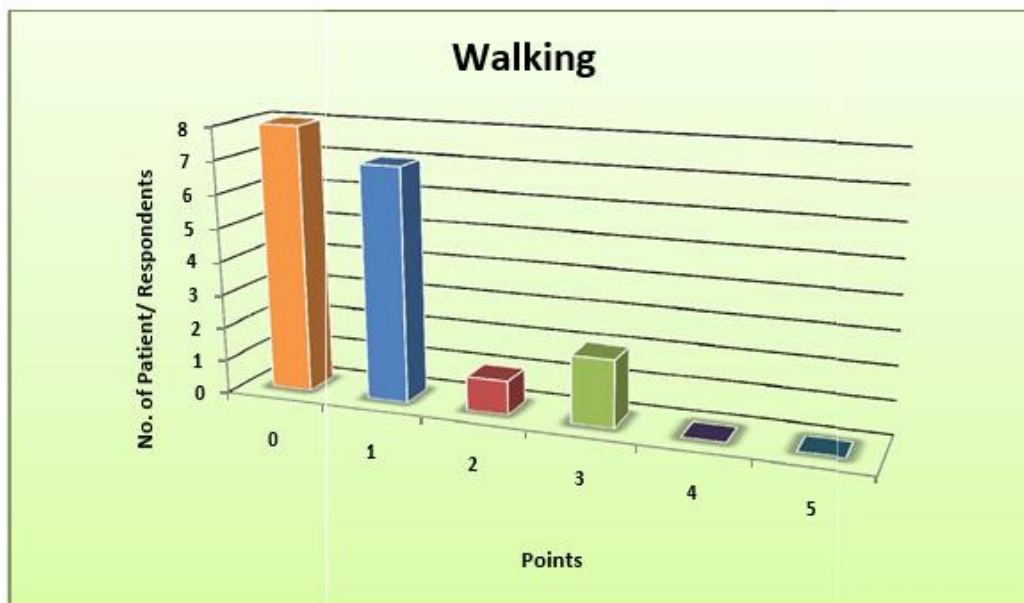
A survey Based Analysis of Low Back Pain and Best Practice Care

According to the graph above, 5.56% of respondents said they can lift heavy weights without pain, while 38.89% said they can but it hurts. 11.11% said pain prevents them from lifting heavy weights off the floor but they can manage if it is conveniently positioned, such as on a table, 27.77% said pain

prevents heavy weights but they can manage light to medium weights if it is conveniently positioned, 16.67% said they can only lift very light weights, and none of them answered the points (5). The findings revealed that if you lift a heavy weight, you may experience additional pain.

4. Walking

Question No.	Points	No. of patient/Respondents	Percentage (%)
4	(0) Pain does not prevent me walking any distance.	8	44.44
	(1) Pain prevents me walking more than 1 mile.	7	38.89
	(2) Pain prevents me walking more than 0.5 miles.	1	5.56
	(3) Pain prevents me walking more than 0.25 miles.	2	11.11
	(4) I can only walk using a stick or crutches.	0	0
	(5) I am in bed most of the time and have to crawl to the toilet.	0	0



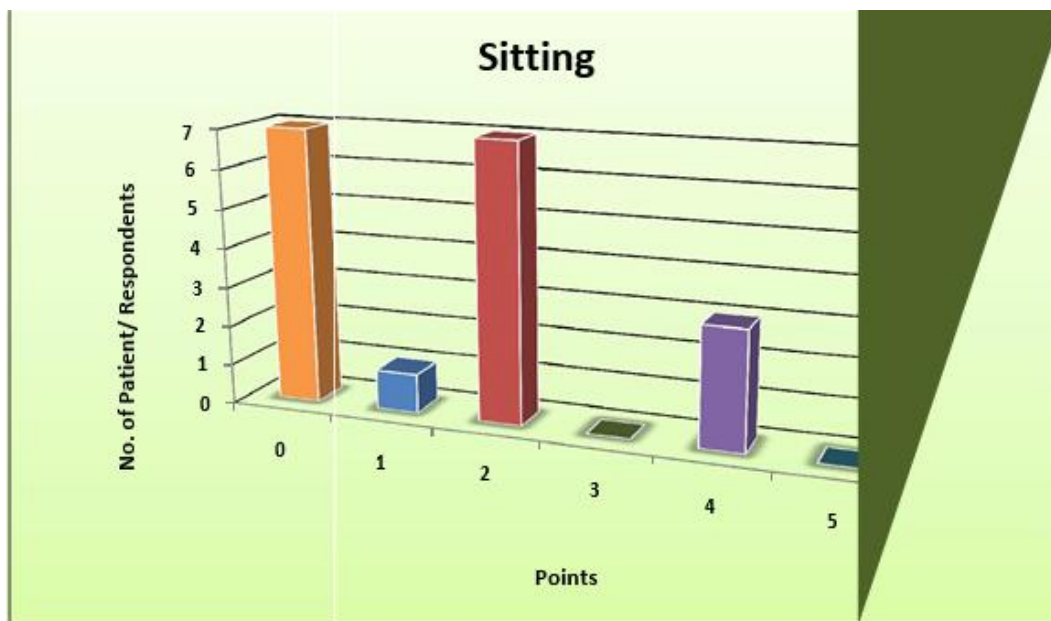
According to the graph above, respondents chose pain does not prevent them from walking any distance, 38.89% said pain prevents them from walking more than one mile, 5.56% said pain prevents them from walking more than 0.5 miles,

and 11.11% said pain prevents them from walking more than 0.25 miles, but none answered for points(4) & (5). Walking any distance does not cause pain for the majority of respondents, according to these findings.

5. Sitting

Question No.	Points	No. of patient/Respondents	Percentage (%)
5	(0) I can sit in any chair as long as I like.	7	38.89
	(1) I can only sit in my favourite chair as long as I like.	1	5.56
	(2) Pain prevents me sitting more than 1 hour.	7	38.89
	(3) Pain prevents me from sitting more than 0.5 hours.	0	0
	(4) Pain prevents me from sitting more than 10 minutes.	3	16.67
	(5) Pain prevents me from sitting at all.	0	0

A survey Based Analysis of Low Back Pain and Best Practice Care

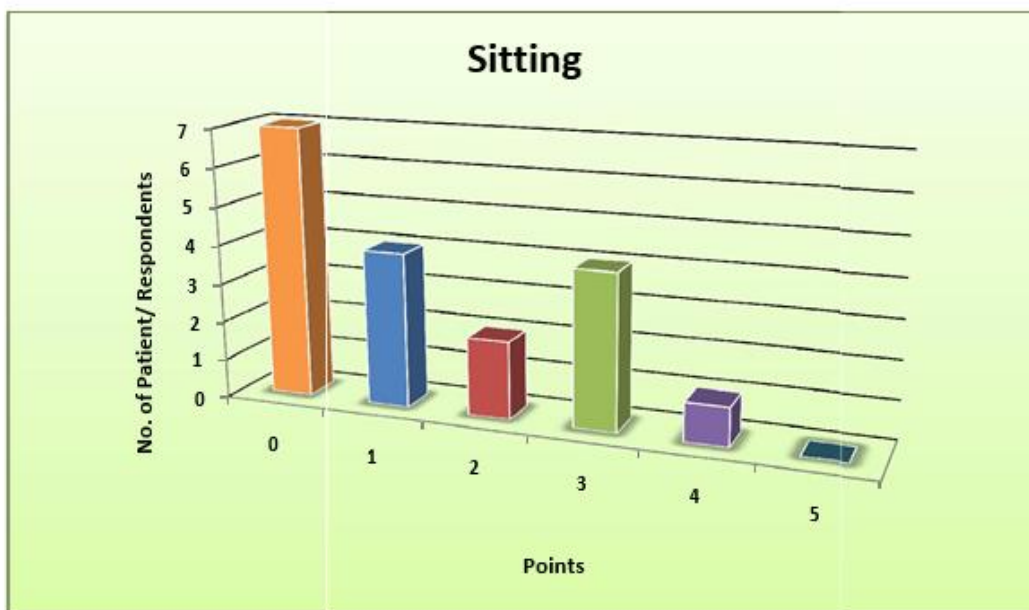


According to the graph above, 38.89% of respondents said they can sit in their favorite chair for as long as they want, 38.89% said pain prevents them from sitting for more than 1 hour, 16.67% said pain prevents them from sitting for more

than 10 minutes, and none of them answered points (3) & (4). (5). According to the survey, sitting is one of the factors that contribute to low back pain.

6.Standing

Question No.	Points	No. of patient/Respondents	Percentage (%)
6	(0) I can stand as long as I want without extra pain.	7	38.89
	(1) I can stand as long as I want but it gives me extra pain.	4	22.22
	(2) Pain prevents me from standing for more than 1 hour.	2	11.11
	(3) Pain prevents me from standing for more than 30 minutes.	4	22.22
	(4) Pain prevents me from standing for more than 10 minutes.	1	5.56
	(5) Pain prevents me from standing at all.	0	0



According to the graph above, 38.89% of respondents said they can stand as long as they want without extra pain, 22.22% said they can stand as long as they want but it causes

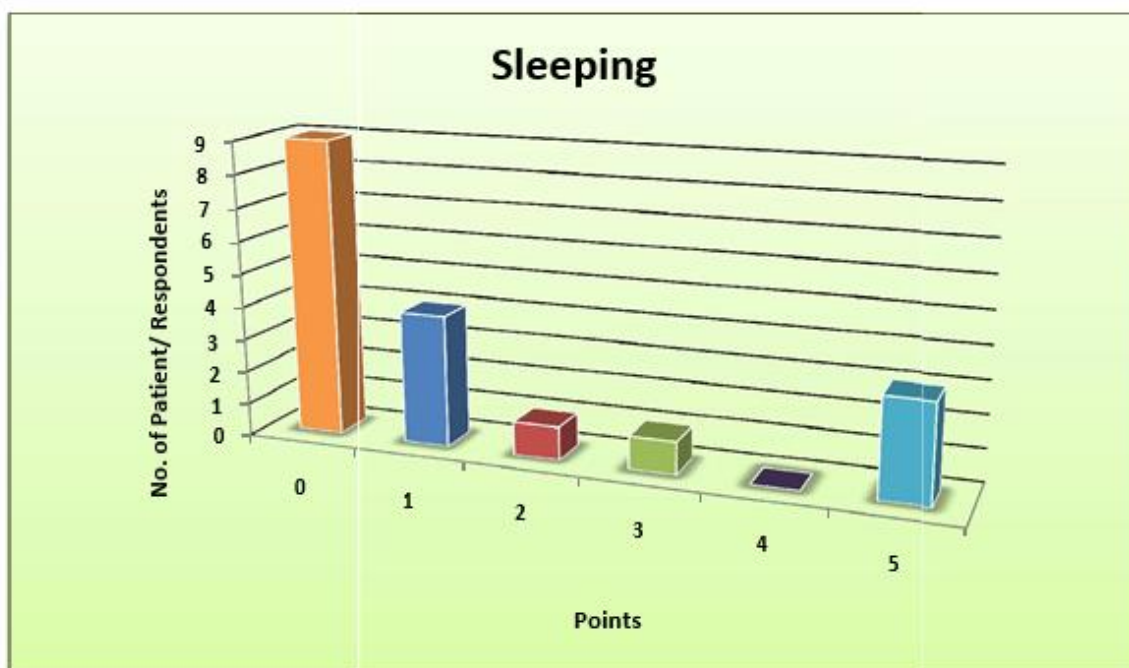
extra pain, 11.11% said pain prevents them from standing for more than 1 hour, 22.22% said pain prevents them from standing for more than 30 minutes, and only 5.56% said pain

A survey Based Analysis of Low Back Pain and Best Practice Care

prevents them from standing for more than 10 minutes (5). back pain.
According to the survey, standing is not a major cause of low

7.Sleeping

Question No.	Points	No. of patient/Respondents	Percentage (%)
7	(0) Pain does not prevent me from sleeping well.	9	50
	(1) I can sleep well only by using tablets.	4	22.22
	(2) Even when I take tablets I have less than 6 hours sleep.	1	5.56
	(3) Even when I take tablets I have less than 4 hours sleep.	1	5.56
	(4) Even when I take tablets I have less than 2 hours of sleep.	0	0
	(5) Pain prevents me from sleeping at all.	3	16.67



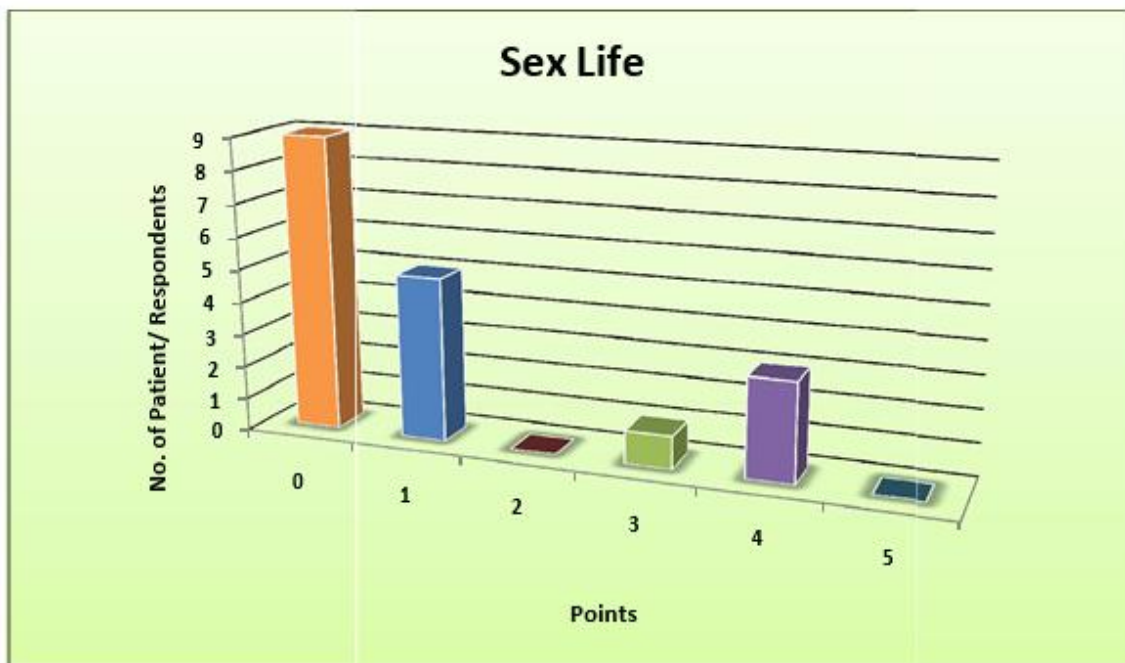
According to the graph above, 50% of respondents stated that pain does not prevent them from sleeping well, 22.22% stated that they can only sleep well by using tablets, 5.56% stated that even when they take tablets, they get less than 6 hours of sleep, 5.56% stated that even when I take tablets, I get less

than 4 hours of sleep, none of them selected the points(4), and 16.67% stated that pain prevents them from sleeping at all. The statement demonstrated that their discomfort did not prevent them from sleeping well.

8.Sex Life

Question No.	Points	No. of patient/Respondents	Percentage (%)
8	(0) My sex life is normal and causes no extra pain	9	50
	(1) My sex life is normal but causes some extra pain.	5	27.77
	(2) My sex life is nearly normal but is very painful.	0	0
	(3) My sex life is severely restricted by pain	1	5.56
	(4) My sex life is nearly absent because of pain	3	16.67
	(5) Pain prevents any sex life at all.	0	0

A survey Based Analysis of Low Back Pain and Best Practice Care

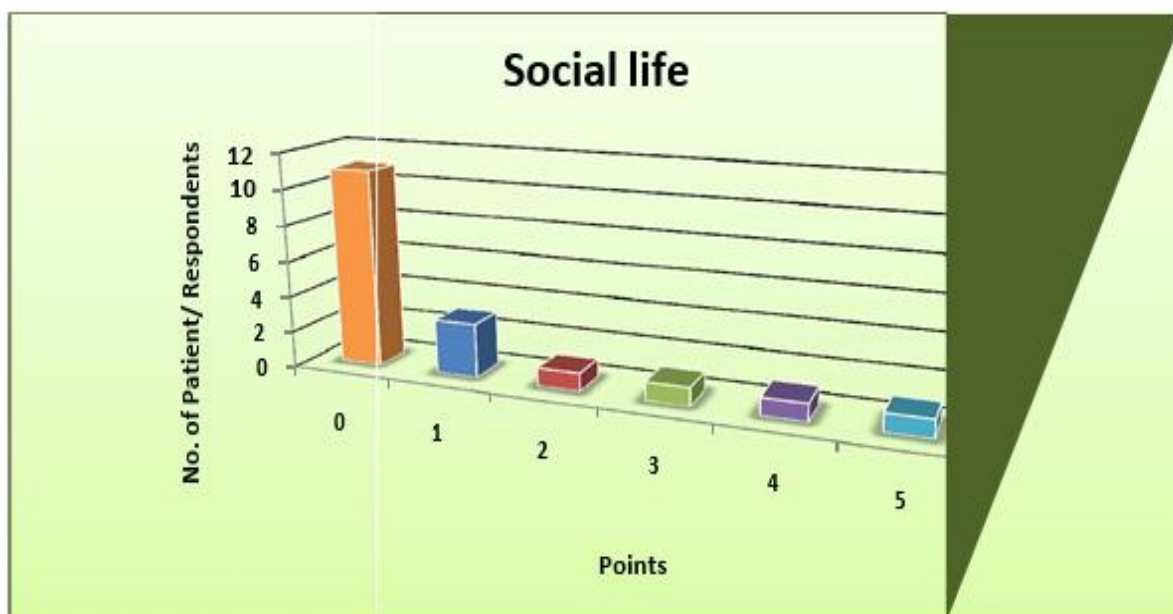


According to the graph above, 50% of respondents said their sex life is normal and causes no extra pain, 27.77% said it is normal but causes some extra pain, 5.56% said their sex life is severely restricted by pain, 16.67% said their sex life is

nearly absent due to pain, and none of them chose points (2) & (3). (5). Based on the graph, we can clearly conclude that low back pain has an impact on sex life.

9.Social Life

Question No.	Points	No. of patient/Respondents	Percentage (%)
9	(0) My social life is normal and gives meno extra pain.	11	61.11
	(1) My social life is normal but increases the degree of pain.	3	16.67
	(2) Pain has no significant effect on mysocial life apart from limiting my more energetic interests such as dancing.	1	5.56
	(3) Pain has restricted my social life andI do not go out as often.	1	5.56
	(4) Pain has restricted my social life tomy home.	1	5.56
	(5) I have no social life because of pain.	1	5.56



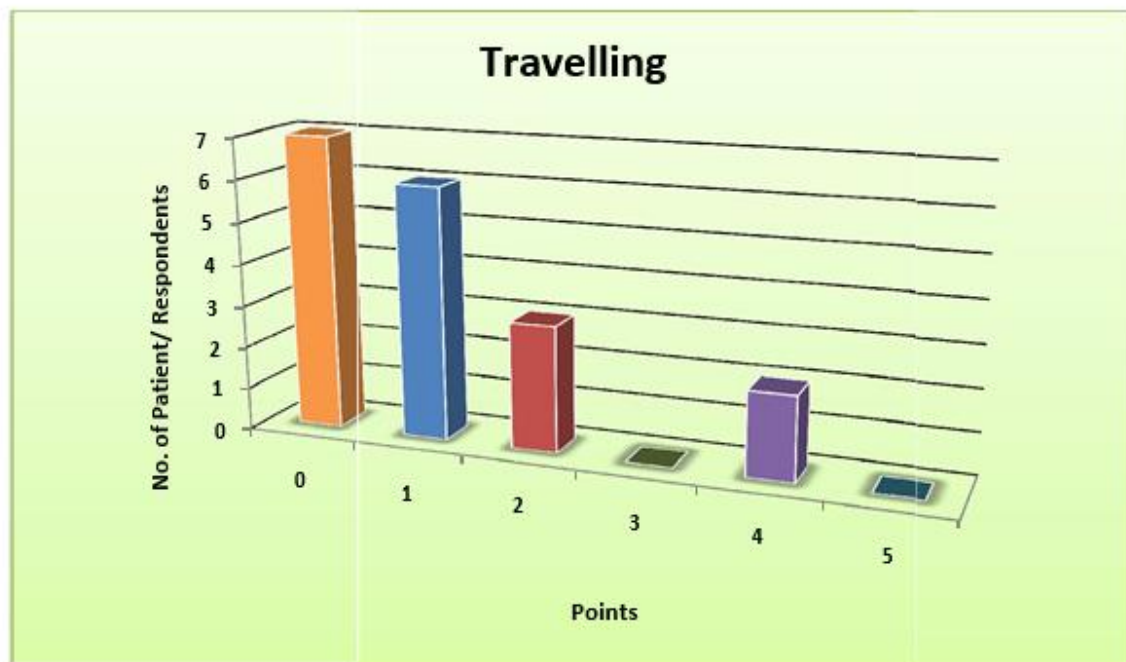
A survey Based Analysis of Low Back Pain and Best Practice Care

According to the graph above, 61.11% of respondents said their social life is normal and causes no extra pain, 16.67% said their social life is normal but causes more pain, 5.56% said pain has no significant effect on their social life other than limiting their more energetic interests such as dancing,

5.56% said pain has restricted their social life and they do not go out as often, and 5.56% said pain has restricted their social life to their home and they do not go out as often. It was discovered that most of the respondents' social lives were impacted by low back pain.

10.Travelling

Question No.	Points	No. of patient /Respondents	Percentage (%)
10	(0) I can travel anywhere without extrapain.	7	38.89
	(1) I can travel anywhere but it givesme extra pain.	6	33.33
	(2) Pain is bad but I manage journeysover 2 hours.	3	16.67
	(3) Pain restricts me to journeys of lessthan 1 hour.	0	0
	(4) Pain restricts me to short necessaryjourneys under 30 minutes.	2	11.11
	(5) Pain prevents me from travellingexcept to the doctor or hospital.	0	0



According to the graph above, 38.89% of respondents said they can travel anywhere but it causes them extra pain, 16.67% said pain is bad but they can manage journeys over 2 hours, 11.11% said pain limits them to short necessary journeys under 30 minutes, and none of them chose points (3) & (4). (5). Traveling, according to the survey, may be a major cause of low back pain.

CONCLUSION

The primary goal of our project is to discover the causes, symptoms, and treatment of low back pain. We conducted a literature review as well as a survey, and we compared the results to the literatures, and we discovered that almost all of the answers given by patients were similar to the literatures. We concluded once again that it is critical to maintain a

healthy lifestyle in order to avoid low back pain in adults because lifestyle is a major cause of low back pain. When experiencing low back pain, one should seek primary care. On the other hand, the government can organize a campaign to promote primary care for low back pain. Adults can benefit from aerobic exercise, which can be promoted by the government and private sectors. Because this disease is common in adults, the management of schools and colleges can organize health campaigns, seminars, and workshops for students and faculty. As a result, all of these methods can help adults avoid low back pain.

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