An Anecdotal Experience of Low Back Pain – What Can We Do Differently?
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Abstract
Low back pain is a very common disease that can be very painful and debilitating. It is also a costly disease which accounts for billions of dollars lost to health care and absence from work. Low back pain is more disabling in developing countries because lack of resources makes proper health care inaccessible to many people. In developing countries many people are employed in manual work and low back pain takes them away from a source of income. Most manual workers in these settings do not have insurance policies to support them when they are absent from work due to disease.

Pharmacological treatment of low back pain has sometimes resulted in opioid dependence which has reached epidemic proportions in some western countries. Opioid dependence is costly to treat and leads to deterioration or loss of human life. It would therefore be beneficial to find an inexpensive and effective treatment of low back pain which has no dependency hazard.

We describe the experiences of an African family physician who suffered from low back pain from early adulthood. He found that drinking lots of water alleviated his low back pain. He found that his low back pain patients also benefited from drinking lots of water when they had an episode of low back pain. We intend to do quantitative studies to test the effectiveness of water treatment in low back pain.

Keywords: Low back pain; Low back pain treatment; Drinking water and low back pain

Introduction
Low back pain (LBP) is one of the most common diseases and most adults suffer from this problem during the course of their life. This disease is very painful, disabling, and is increasingly associated with opioid abuse. It accounts for many days lost to the workplace and sufferers pay heavily for pharmacological, surgical and other interventions. An effective, non-addictive and relatively cheap treatment for LBP would be a welcome development that would reduce health expenditure.

Low back pain (LBP) is associated with pain, muscle tension and stiffness. It is localised below the costal margin and above the inferior gluteal folds [1]. It can present with or without sciatica (nerve impingement causing pain radiating to the posterior aspect of the lower limbs). LBP is a common disease and about 80 per cent of adults suffer from this problem sometime in their life time [1-3]. The year 2010 was declared musculoskeletal year/ year of back pain [4]. Back pain continues to attract interest as it is a leading cause of working time loss, and distress for many people. Medical costs attributed to this problem are substantial [2] and LBP treatment may also be associated with opioid abuse [5,6].

There are many causes of back pain and LBP is classified as specific low back pain (SLBP) or non-specific low back pain (NSLBP) [2]. Specific low back results from known pathological conditions like vertebral disc prolapse, ankylosing spondylitis, acute or chronic infection, inflammation, osteoporosis, rheumatoid arthritis, osteomyelitis, discitis, fracture, and a primary or metastatic tumours. NSLBP is LBP which has no known cause. Seventy to ninety percent of LBP belongs to the NSLBP group. LBP is acute if the pain duration is less than six weeks [1]. If the pain has been there between six weeks and three months it is referred to as sub-acute LBP [1]. Lower back pain is termed chronic when the pain has been there for three or more months [1].

From our clinical experience in Botswana, Africa, many LBP patients present for the first time between ages 20-45 years, with a complaint of dull or sharp back pain especially in the morning. There may be a history of morning - stiffness, relieved gradually as the patient moves around. The pain usually does not radiate to the lower limbs and neurological deficit (including muscular weakness) is uncommon. Those suffering from chronic back pain often describe it as intermittent over a number of years and it may be linked to the cold season or strenuous work.

Danger signs of LBP are progressive neurological deficit, problems with walking or sitting, fever, fractures, malignancy, infection, weight loss. LBP onset below 20 years or above 55 years [7,8]. This article will address non-specific lower back pain (NSLBP).

Literature Review
In a study of the global disease burden in 2010, out of 291 disease conditions studied, LBP ranked highest in terms of years lived with disability (YLDs), and sixth in terms of disability adjusted life years (DALYs) [9]. In Saudi Arabia, LBP was acknowledged as a leading reason for medical consultations and it interfered with the quality of life and work performance [10].

The average lifetime prevalence of LBP among adults in Africa is 62%, and among adolescents it is 36% [11]. The lifetime prevalence of LBP among undergraduate physiotherapists in a university in Nigeria was 45.5% and it was also a major cause of disability as well as the most common work-related musculoskeletal disorder among the student physiotherapists [12].

The best treatments available are for specific chronic low back pain (SLBP), that is LBP that results from a known pathology. Some of these treatments are: radiofrequency ablation (RFA) [13], viniyoga therapy,
acupuncture, spinal decompression, nerve block and pharmacological therapy for pain relief (anti-inflammatory drugs, antidepressants, and anticonvulsants) [14]. Other treatments include muscle stretching exercises, spinal manipulations, traction (using weight and pulleys to pull the skeletal structures into alignment), biofeedback, use of botulinum toxin or steroid injection into spinal cord and nerve roots, as well as transcutaneous electrical nerve stimulation (TENS) [2,15]. Surgical procedures like vertebroplasty, kyphoplasty, spinal laminctomy, discectomy, and spinal fusion are also used. These are all very expensive surgical procedures which are not accessible at primary health care facilities where most LBP patients present.

Reasons for recurring back pain have been attributed to improper body posture, movements that jolt or strain the back, lifting objects improperly, and lifting heavy objects. Vitamin D deficiency has been linked to LBP and supplementing this vitamin is thought to help in some ways [16].

In Botswana, LBP treatments include the use of non-steroidal anti-inflammatory drugs like ibuprofen, topical painkillers, narcotic drugs, and tricyclic antidepressants [17]. For radiculopathy, local anaesthetics are sometimes injected into the epidural space and some physicians give cortisone injections to decrease inflammation [14]. Patients are advised to stay active, reducing stress (and worry) and other therapies like heat, and electrical stimulation are sometimes tried. Chiropractic care, acupuncture, massage and yoga are often resorted to in order to relieve patients of their pain [15].

Investigations are generally not necessary for LBP unless there are danger signs/red flags, or pain is intractable [1,2,14]. Investigations include spinal X-Ray, bone scan, full blood count, ESR, blood culture and needle aspiration for microscopy culture and sensitivity. CT scans, MRIs, ultra sounds and diagnostic nuclear medicine scans are sometimes used [14]. Most of these investigations are done to rule out pathology (fractures, chronic infections and cancer). These investigations are costly, and often the pathology detected by imaging may not be the cause of LBP [2].

The common biomedical treatment plan is to follow the World Health Organization (WHO) pain treatment ladder [18]. In this ladder, the first line of treatment is a non-opioid with or without adjuvant. If pain persists or increases, an opioid for moderate to severe pain is used together with a non-opioid (with or without adjuvant). Although some physicians in Africa prescribe rest as part of LBP treatment [11], patients should generally be advised to remain as active as their pain can allow [1,8]. Apart from pharmacotherapy, educating patients about back pain and reassuring them that most patients recover, asking them to stay active, not prescribing bed rest, using multidisciplinary teams to treat patients, and referral of intractable cases to specialist centres are the bedrock of LBP treatment [1].

Personal encounter (Anecdotal report) and what I did differently

I (OAJ) am a family physician with a lot of experience in orthopaedics and treating LBP patients. I have suffered from LBP since I was an undergraduate medical student. Despite taking appropriate treatment my back pain used to persist for a week and sometimes two. The last LBP episode I had was ten years ago. I had excruciating, incapacitating pain, and I associated the condition with the prevailing cold weather of that winter season. I had pain around the lumbar region, occasional muscular cramps in the lower limbs, and dizziness. This drove me to develop an interest in finding a cure for my LBP. I had always advised my patients to increase their fluid intake when treating certain conditions like renal stones, cholelithiasis, urinary tract infection (UTI) and dizziness. I became fascinated with the idea that drinking more fluids than usual might help alleviate the pain of my LBP. I increased my fluid intake and combined this with the stretching exercises. I stopped taking analgesics and other drugs for LBP. The LBP disappeared within a shorter time than usual. The relief was so remarkable that I got inquisitive about the role of water intake in LBP. Since then whenever I have LBP I get relief by increasing my water intake. I have almost a decade of LBP free existence because of the water therapy. I have used this experiential knowledge in treating my LBP patients. I ask them to increase their water intake, and to take the usual treatment of NSAID with adjuvants. Water therapy seems to have benefited them as well.

Increased water intake is mentioned in non-scientific media as a cure for back pain [19-22]. Increased water intake seems to help keep the nucleus of the intervertebral disc hydrated and this enables the disc to withstand pressure exerted on it by movement and the erect posture [20]. Dehydration seems to cause LBP because it causes muscle spasm, and causes the nervous system to malfunction [21,22]. Community health workers (CHWs) may be trained to help patients take a more active role in the management of their chronic diseases [23]. There is therefore a place for encouraging LBP patients to actively participate in the management of LBP. CHWs could teach LBP patients the correct posture for lifting heavy weights, and how to manage acute attacks of LBP. CHWs may advise LBP patients about maintaining normal weight, taking their medications, and trying water therapy.

Studies on the role of increased water intake in the management of nonspecific LBP are necessary because they may show an inexpensive, non-toxic, and non-addictive treatment of LBP. There may be a role of increased water intake in the treatment of acute LBP especially in warm climates or during warm weather. We intend to test the efficacy of water therapy in the treatment of LBP in a future study.

References


