



# IJPPR

INTERNATIONAL JOURNAL OF PHARMACY & PHARMACEUTICAL RESEARCH  
An official Publication of Human Journals

ISSN 2349-7203



Human Journals

**Research Article**

November 2023 Vol.:28, Issue:4

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## A Study on Post-Spinal Backache after Caesarean Spinal Anesthesia



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INTERNATIONAL JOURNAL OF PHARMACY & PHARMACEUTICAL RESEARCH  
An official Publication of Human Journals



ISSN 2349-7203

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**Submitted:** 22 October 2023  
**Accepted:** 27 October 2023  
**Published:** 30 November 2023

**Keywords:** Cesarean section, anesthesia, secondary infertile, obstructed labor, epidural anesthetic, Obstetricians and Gynecologists iltly

### ABSTRACT

Cesarean section, also known as C-section or cesarean delivery, is the surgical procedure by which one or more babies are delivered through an incision in the mother's abdomen. It is often performed because vaginal delivery would put the baby or mother at risk. The World Health Organisation recommends that a cesarean section be performed only when medically necessary. Spinal anesthesia, also called spinal block, subarachnoid block, intradural block, and intrathecal block, is a form of neuraxial regional anesthesia involving the injection of a local anesthetics or opioid into the subarachnoid space, generally through a fine needle, usually 9 cm (3.5 in) long. Back pain is often reported as a common complaint after surgery. To study the prevalence, assessment, and management of chronic lower back pain after spinal anesthesia in a cesarean section. Estimate the prevalence of chronic lower back pain, evaluate the nature and intensity of chronic lower back pain, evaluate the other side effects of spinal anesthesia, and evaluate the consequences of lower back pain on the routine lifestyle Conclude that the prevalence of chronic lower back pain was found to be much higher in mothers around the age group of 20–30 years. Moderate intensity of pain while performing some kind of activity and radiation of lower back pain to both lower extremities were found. Major consequences of spinal anesthesia have resulted in mild disabilities, and it clearly has a significant impact on the routine lifestyles of mothers and Muscle weakness serves as one of the major side effects of spinal anesthetics.



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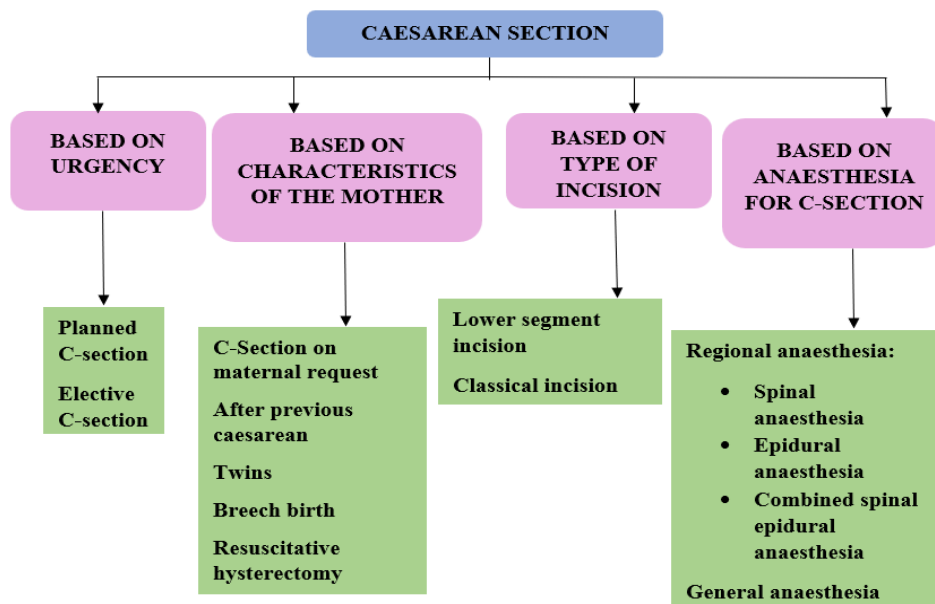
## INTRODUCTION

Cesarean section, also known as C-section or cesarean delivery, is the surgical procedure by which one or more babies are delivered through an incision in the mother's abdomen, often performed because vaginal delivery would put the baby or mother at risk. A cesarean section can be planned ahead of time or performed in an emergency. It carries more risk than a vaginal delivery, with a slightly longer recovery period. Reasons for the operation include obstructed labor, twin pregnancy and high blood pressure in the mother, breech birth and problems with the placenta or umbilical cord.

In terms of the global scenario, there is a large increment in the rate of C-section as a country shifts from lower to higher Human Development Index (HDI).

## TYPES OF C- SECTION:

- Based on Urgency,
- Planned c section
- Elective c section



Classification of cesarean section

### **BASED ON ANAESTHESIA FOR C-SECTION:**

- Regional anesthesia
  - Spinal anesthesia,
  - Epidural anesthesia,
  - Combined spinal-epidural anesthesia (CSE)
- General anaesthesia

### **REASONS FOR PLANNED C-SECTIONS:**

Need a C-section if you have certain medical conditions or if complications occur during labor in a vaginal delivery. A planned C-section happens when any of the following conditions exist:

- **Labor is not progressing:** Also called prolonged labor, this means your cervix dilates and stops, does not efface (or thin) or your baby stops moving down the birth canal.
- **Umbilical cord compression:** The umbilical cord is looped around your baby's neck or body or caught between your baby's head and your pelvis.
- **Umbilical cord prolapses:** The umbilical cord comes out of your cervix before your baby does.
- **Placental abruption:** The placenta separates from the wall of your uterus before your baby is born.
- **Fetal distress:** The baby might develop problems that cause an irregular heart rate during labor. Concern obstetrician might decide that the baby can no longer tolerate labour and that a C-section is necessary.
- **A health problem,** such as high blood pressure, is making labor riskier for you and baby.

## SPINAL ANAESTHESIA

**Spinal anesthesia** also called as a **spinal block, subarachnoid block, intradural block** and **intrathecal block**, is a form of neuraxial regional anesthesia involving the injection of a local anesthetic or opioid into the subarachnoid space, generally through a fine needle, usually 9 cm (3.5 in) long. It is a safe and effective form of anesthesia usually performed by anesthesiologists that can be used as an alternative to general anesthesia commonly in surgeries involving the lower extremities and surgeries below the umbilicus. The local anesthetic with or without an opioid injected into the cerebrospinal fluid provides locoregional anesthesia: true analgesia, motor, sensory and autonomic (sympathetic) blockade. Administering analgesics (opioid, alpha2-adrenoreceptor agonist) in the cerebrospinal fluid without a local anesthetic produces locoregional analgesia: markedly reduced pain sensation (incomplete analgesia), some autonomic blockade but no sensory or motor block. Locoregional analgesia, due to mainly the absence of motor and sympathetic block may be preferred over locoregional anesthesia in some postoperative care settings. The tip of the spinal needle has a point or small bevel. Recently, pencil point needles have been made available.

Spinal anesthesia is the technique of choice for Caesarean section as it avoids a general anesthetic and the risk of failed intubation (which is probably a lot lower than the widely quoted 1 in 250 in pregnant women). It also means the mother is conscious and the partner is able to be present at the birth of the child. The post-operative analgesia from intrathecal opioids in addition to non-steroidal anti-inflammatory drugs is also good.

## RISKS AND COMPLICATIONS

Complications of spinal anesthesia can result from the physiologic effects on the nervous system and can also be related to placement technique. Most of the common side effects are minor and are self-resolving or easily treatable while major complications can result in more serious and permanent neurological damage and rarely death. These symptoms can occur immediately after administration of the anesthetics or be delayed.

Common and minor complications include:

- Mild hypotension

- Bradycardia
- Nausea and vomiting
- Transient neurological symptoms (lower back pain with pain in the legs)
- Post-dural-puncture headache or post-spinal headache - Associated with the size and type of spinal needle used. A 2020 meta-analysis recommended the use of the 26G atraumatic spinal needle to lower the risk of PDPH - specifically, the Braun Araucana 26 G needle.

Serious and permanent complications are rare but are usually related to physiologic effects on the cardiovascular system and neurological systems or when the injection has been unintentionally at the wrong site. The following are some major complications:

- Nerve injuries: Cauda equina syndrome, radiculopathy
- Cardiac arrest
- Severe hypotension
- Lower back pain
- Spinal epidural hematoma, with or without subsequent neurological sequelae due to compression of the spinal nerves.
- Epidural abscess
- Infection (e.g.: meningitis)

## **RISKS AND COMPLICATIONS AFTER C-SECTION**

Some of the more common risks and complications include:

- Above-average blood loss
- Blood clots in the legs
- Infection in the lining of the uterus
- A longer stay in hospital (3 to 5 days, or 72 to 120 hours, on average)

- Pain around the wound (you will be given pain relief)
- Problems with future attempts at vaginal birth
- A need for a caesarean section for future births
- Complications from the anaesthetic.

Some problems you should look out for include:

- Pain in your abdomen or wound that is getting worse and that doesn't go away after you take pain-relieving medication.
- Ongoing or new back pain, especially where you had the epidural or spinal injection (muscular aches and pains are normal).
- Pain or burning when you pass urine or inability to pass urine
- Leaking urine
- Constipation
- Inability to pass wind or bowel motions
- Increased vaginal blood loss or bad-smelling discharge from the vagina
- Coughing or shortness of breath
- Swelling or pain in your calf (lower leg)
- Wound edges pulling apart or looking infected.

### **LOWER BACK PAIN (LBP)**

**Low back pain (LBP)** or **lumbago** is a common disorder involving the muscles, nerves, and bones of the back, in between the lower edge of the ribs and the lower fold of the buttocks. Pain can vary from a dull constant ache to a sudden sharp feeling. Low back pain may be classified by duration as acute (pain lasting less than 6 weeks), sub-chronic (6 to 12 weeks), or chronic (more than 12 weeks). The condition may be further classified by the underlying cause as either mechanical, non-mechanical, or referred pain. The symptoms of

low back pain usually improve within a few weeks from the time they start, with 40–90% of people recovering by six weeks.

Chronic low back pain (CLBP) is defined as pain that continues for 12 weeks or longer, even after an initial injury or underlying cause of acute low back pain has been treated. CLBP develops in roughly 5.0% to 10.0% of low back pain cases. CLBP represents the second leading cause of disability worldwide and is a major health and economic problem. CLBP has a significant impact on functional capacity and occupational activities, and can also be influenced by psychological factors, such as stress, depression and/or anxiety.

Back pain often develops without a cause that shows up in a test or imaging study. The various causes of lower back pain include the following:

- **Muscle or ligament strain**
- **Bulging or ruptured disks**
- **Arthritis**
- **Osteoporosis**
- **Spinal stenosis**
- **Herniated disc**
- **Facet joint damage**

In this study, we had discussed about the chronic lower back pain experienced by maternal patients who had given birth by undergoing C-section.

### **PREVALENCE OF LOWER BACK PAIN DUE TO SPINAL ANAESTHESIA INDUCED C-SECTION**

Back pain is often reported as a common complaint after surgery. Many studies showed that the prevalence of back pain after spinal anaesthesia is high and its magnitude is considerable in developing countries. It is highly related to reduced quality of life, loss of work productivity, the burden of health care costs, and satisfaction regarding health care service; therefore, measures should be taken to reduce post-spinal backache.

Spinal anaesthesia (SA) is the most commonly preferred and widely used anesthesia technique in surgeries like lower extremity surgery, anorectal, urologic, obstetric, and gynaecologic interventions and lower abdominal procedures. Even though spinal anesthesia

is the preferred technique, it has a lot of complications like post spinal back pain (PSBP) compared to general anesthesia (GA).

Back pain is a worldwide health problem affecting 50% and 80% of people at some time in their lives and it is a major physical burden for the individual and the society. The lifetime incidence of nonspecific low back pain is more than 84%, the incidence of chronic low back pain is about 23%, and 11-12% of the population suffered disability with this pain.

Regardless of the anesthetic technique, postoperative low back pain is often reported as a common complaint after SA but the association between anesthetic technique and back pain is still unclear. Post-spinal back pain (PSBP) is usually a mild type of pain and it manifests during the first two to six hours (hrs) after the surgical procedure, when the local anesthetics wear off in most people, and lasts only for a few days. Rarely, the pain may persist for some weeks and becomes permanent because of nerve injury during spinal needle insertion. Studies showed the incidence of back pain ranges 10.7–12.3% after spinal anaesthesia.

A study conducted in Ethiopia reported that 38.0%, 29.9%, and 16.0% of patients suffered PSBP in the 1<sup>st</sup>, 2<sup>nd</sup>, and 3<sup>rd</sup> postoperative days after SA, respectively. Another study done in Asella, Ethiopia, showed that patients suffered backache in the postoperative 1<sup>st</sup>, 2<sup>nd</sup>, and 3<sup>rd</sup> days and 4<sup>th</sup> week after spinal anesthesia in surgical procedures with 38.0, 29.9, 16.0, and 31.6% respectively. Fear of back pain after SA is one reason for patient refusal of this type of anesthesia and it accounts for a refusal rate of 13.4%.

In a study done in Chicago, USA, 9-10% of the study participants had postoperative back pain after SA. On the other hand, in a multi-center prospective study in Europe, back pain was the leading complaint among other post-lumbar puncture complaints with an incidence of 17%. A higher prevalence rate, 40%, of back pain after spinal anesthesia was found in a prospective observational study in Germany, on 112 patients. In addition, studies done in Turkey and China showed that PSBA occurred in 29.3% of patients and 39% at the first, 37% at the second, and 31% at the third postoperative days after SA, respectively.



## **OBJECTIVES**

- To estimate the prevalence of chronic lower back pain in maternal patients undergone spinal anaesthesia induced C-section.
- To evaluate the nature and intensity of chronic lower back pain in maternal patients undergone spinal anaesthesia induced C-section.
- To evaluate the other side effects of spinal anaesthesia induced C-section.
- To evaluate the consequences of lower back pain on the routine lifestyle of the maternal patients.

## **MATERIALS AND METHODS**

This study is undertaken to assess the prevalence rate of chronic lower back pain in patients who have undergone cesarean section under the influence of spinal anesthesia. The pain experienced by the patients is evaluated through various pain rating scales and questionnaires as follows:

### **VISUAL ANALOG SCALE (VAS)**

A Visual Analogue Scale (VAS) is one of the pain rating scales used for the first time in 1921 by Hayes and Patterson. It is often used in epidemiologic and clinical research to measure the intensity or frequency of various symptoms. Based on the distribution of pain VAS scores in post-surgical patients (caesarean section) who described their postoperative pain intensity as mild, moderate, or severe, the following cut points on the pain VAS have been recommended: mild pain (1-4 mm), moderate pain (5-7 mm), and severe pain (8-10mm).

### **BACK PAIN FUNCTIONAL SCALE (BPFS)**

The Back Pain Functional Scale (BPFS) is a subjective scale used to measure the patient's physical function after low back pain. It is simple and easy to understand and administer to the patients. This scale is based upon the International Classification of Function (ICF) model proposed by the World Health Organisation. This scale consists of a total score of 60.

## **PAIN SELF-EFFICACY QUESTIONNAIRE (PSEQ)**

The Pain Self-Efficacy Questionnaire (PSEQ) is a 10-item questionnaire developed to assess the confidence people with ongoing pain have in performing activities while in pain. Self-efficacy refers to the belief in one's capabilities and the confidence in one's abilities to organize, perform and complete the courses of action required to achieve a particular behavior or outcome. Self-efficacy in individuals experiencing pain includes beliefs about their ability to control pain and the associated emotions, life and work activities, communicating their needs, and appropriately utilizing pain management strategies. A belief about one's confidence in coping abilities is associated with the pain experience. Pain self-efficacy can be measured by the Pain Self-Efficacy Questionnaire.

## **OSWESTRY DISABILITY INDEX (ODI):**

The **Oswestry Disability Index (ODI)** is an index derived from the Oswestry Low Back Pain Questionnaire used by clinicians and researchers to quantify disability for low back pain. This validated questionnaire was first published by Jeremy Fairbank et al. in *Physiotherapy* in 1980. The self-completed questionnaire contains ten topics concerning intensity of pain, lifting, ability to care for oneself, ability to walk, ability to sit, ability to stand, social life, sleep quality, and ability to travel. Each question is scored on a scale of 0–5 with the first statement being zero and indicating the least amount of disability and the last statement is scored 5 indicating most severe disability. The scores for all questions answered are summed and then multiplied by two to obtain the index (range 0 to 100). Zero is equated with no disability and 100 is the maximum disability possible.

## **METHODOLOGY**

A study on post-spinal backache after cesarean spinal anaesthesia was carried out within the residential areas in and around Trichy district. The study population was 50 maternal patients who had undergone spinal anaesthesia-induced C-section.

### **Inclusion criteria:**

- ✓ Maternal patients having childbirth by C-section under spinal anaesthesia
- ✓ Age between 20 – 50 years

✓ Maternal patients suffering from lower back pain having childbirth by C-section under spinal anaesthesia

**Exclusion criteria:**

- ✓ Maternal patients having childbirth through vaginal delivery
- ✓ Patients having a history of acute injury to the back which could result in pain as an acute inflammatory process
- ✓ Maternal patients having lower back pain due to any co-morbidities
- ✓ Maternal patients undergone hysterectomy

**Plan of work:**

A modified questionnaire was used to conduct this study. It was a combination of three standard questionnaires. It included Back Pain Functional Scale (BPFS), Pain Self – Efficacy Questionnaire (PSEQ) and Oswestry low back pain questionnaire.

Pain assessment was done through Visual Analogue Scale (VAS).

Those consented to participate were given a consent form. Once they met selection criteria and to take part in the study, they were handed out the questionnaire.

**Information collected by the Proforma included the following:**

- Proforma I – Patient’s consent form
- Proforma II - Patient’s demographic details
- Proforma III - Pain assessment proforma
- Proforma IV - Back pain functional scale
- Proforma V - Pain self-efficacy questionnaire
- Proforma VI - Oswestry low back disability questionnaire

## RESULT AND DISCUSSION

### A. Age categorization of the study population

Out of 50 patients about 40% were in the age group of 30-40 years, 32% were in the age group of 40-50 years and 28% were in the age group of 20-30 years.

### B. Occupation categorization of the study population

Out of 50 patients, the prevalence of lower back pain was higher in housewives (76%), and 24% was seen with working mothers.

### C. Categorization of the incidence of lower back pain in the study population

Out of 50 patients, about 74% had pain within 1-3 months of delivery, 8% had pain within 4-6 months of delivery, and about 18% had pain after more than 6 months.

### D. Severity of pain categorization of the study population

Out of 50 patients, the prevalence of lower back pain was higher while performing some kind of work (54%), 20% due to bending, 8% due to prolonged sitting, and 20% due to prolonged standing.

### E. Reduction of pain categorization in the study population

Out of 50 patients, reduction of pain was higher through rest (72%), 2% through medicine, and 26% showed a reduction in pain through sleep.

### F. Duration of pain categorization in the study population

Out of 50 patients, persistence of pain for more than one year was seen in most of the mothers (88%), 8% showed persistence of pain for < six months, and 4% for > six months but < one year.

### G. Behaviors of pain categorization of the study population

Out of 50 patients, intermittent behavior of pain was higher, with about 94% and 6% showing constant behavior of pain.

#### **H. Intensity of pain at rest categorization of the study population**

Out of 50 patients, about 66% showed no pain during the resting condition, whereas 30% showed mild pain and 4% showed moderate pain.

#### **I. Intensity of pain during activity categorization of the study population**

Out of 50 patients, about 58% showed moderate pain during activity, 30% showed mild pain, 8% showed severe pain and 4% showed no pain.

#### **J. Radiation of low back pain categorization of the study population**

Out of 50 patients, radiation of pain to both lower extremities was higher (54%), 24% to the left upper extremity, and 22% to the right upper extremity.

#### **K. Other side effects of spinal anesthetics: categorization of the study population**

Out of 50 patients, leg pain was considered the major side effect of spinal anesthetics (42%), muscle weakness (32%), numbness in legs (18%), and tingling of legs (8%).

#### **L. Severity of chronic low back pain on the VAS scale categorizes the study population.**

Out of 50 patients, a 5-7 pain rating was found to be higher (52%), and 48% showed a 1-4 pain rating on the VAS scale.

#### **M. Oswestry disability rating categorization of the study population**

Out of 50 patients, about 88% showed mild disabilities, 10% showed no disability, and 2% showed moderate disabilities.

#### **N. Back pain functional scale score categorization of the study population**

Out of 50 patients, about 54% have no difficulty with any activity, whereas 46% can moderately perform any activity.

#### **O. Pain self-efficacy questionnaire score categorization of the study population**

Out of 50 patients, about 88% shows more self-efficacy, whereas 12% show moderate self-efficacy.

## CONCLUSION

- The prevalence of chronic lower back pain was found to be much higher in mothers around the age group of 20–30 years.
- About 58% of the study population showed a moderate intensity of pain while performing some kind of activity.
- Radiation of lower back pain to both lower extremities was found to be much higher among the study population (54%).
- Major consequences of spinal anesthesia have resulted in mild disabilities, which account for about 88% of the study population, and it clearly has a significant impact on the routine lifestyles of mothers.
- Muscle weakness serves as one of the major side effects of spinal anesthetics, which accounts for about 42% of the study population.

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**PROFORMA I**

**PATIENT'S CONSENT FORM**

I, ..... have been explained by the investigators Mrs. A. Jayalakshmi, Ms. K. Ruwaitha Aafrin, Mr. S. K. Mohamed Afridi and Mr. S. Muthu Kumar about the nature and effect of project entitled “A Study on Post - Spinal Backache after Caesarean Spinal Anaesthesia”. I have been provided with information about the study. I have understood and satisfied with the explanation given by the investigators of their representatives and I hereby give my consent to participate in the study. I also understood that if I am not interested for further participation in the study I have the option of withdrawing from the study at any time without giving reason.

Signature of the patient



**PROFORMA II**

**PATIENT’S DEMOGRAPHIC DETAILS**

Patient’s Name :  
 Age :  
 Education :  
 Occupation :  
 Total No. of Children :  
 No. of C-sections done under  
 Spinal Anaesthetic :  
 Date of C-section Surgery

**PROFORMA III**

Patient name:		Age:
Education:	Occupation:	
Total no. of children:		
No. of c-sections done:	Date of c-section surgery:	
Previous vaginal delivery done: Yes/No Does low back pain occur frequently: Yes/No		
Incidence of lower back pain:		

When did pain become severe: <ul style="list-style-type: none"> <li><input type="radio"/> Working</li> <li><input type="radio"/> Bending</li> <li><input type="radio"/> Lying</li> <li><input type="radio"/> Prolonged sitting</li> <li><input type="radio"/> Prolonged standing</li> </ul>	What helps in reducing the pain: <ul style="list-style-type: none"> <li><input type="radio"/> Rest</li> <li><input type="radio"/> Medicine</li> <li><input type="radio"/> Sleep</li> <li><input type="radio"/> Work</li> </ul>
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Duration of pain: <ul style="list-style-type: none"> <li><input type="radio"/> &lt;6 months</li> <li><input type="radio"/> &gt;6 months but &lt; 1 year</li> <li><input type="radio"/> &gt;1 year</li> </ul>	Behaviour of pain: <ul style="list-style-type: none"> <li><input type="radio"/> Intermittent</li> <li><input type="radio"/> Constant</li> </ul>
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<p>Intensity of pain at rest:</p> <ul style="list-style-type: none"><li><input type="radio"/> Not present</li><li><input type="radio"/> Mild</li><li><input type="radio"/> Moderate</li><li><input type="radio"/> Severe</li></ul>	<p>Intensity of pain during activity:</p> <ul style="list-style-type: none"><li><input type="radio"/> Not present</li><li><input type="radio"/> Mild</li><li><input type="radio"/> Moderate</li><li><input type="radio"/> Severe</li></ul>
<p>Radiation of low back pain:</p> <ul style="list-style-type: none"><li><input type="radio"/> To right upper extremity</li><li><input type="radio"/> To left upper extremity</li><li><input type="radio"/> To both lower extremity</li></ul>	<p>Other side effects of spinal anaesthetics:</p> <ul style="list-style-type: none"><li><input type="radio"/> Tingling of legs</li><li><input type="radio"/> Muscle weakness</li><li><input type="radio"/> Leg pain</li><li><input type="radio"/> Numbness in legs</li></ul>
<p>Severity of chronic low back pain on VAS scale:</p> <ul style="list-style-type: none"><li><input type="radio"/> 1-4</li><li><input type="radio"/> 5-7</li><li><input type="radio"/> 8-10</li></ul>	<p>Oswestry disability rating:</p> <ul style="list-style-type: none"><li><input type="radio"/> 0-4no disability</li><li><input type="radio"/> 5-14mild disability</li><li><input type="radio"/> 15-24moderate disability</li><li><input type="radio"/> 25-34severe disability</li><li><input type="radio"/> 35-50 complete disability</li></ul>
<p>Back pain functional scale score:</p> <ul style="list-style-type: none"><li><input type="radio"/> 0-20 unable to perform any activity</li><li><input type="radio"/> 20-40 moderately can perform any activity</li><li><input type="radio"/> 40-60 no difficulty in any activity</li></ul>	<p>Pain self-efficacy questionnaire score:</p> <ul style="list-style-type: none"><li><input type="radio"/> 0-20 less self-efficacy</li><li><input type="radio"/> 20-40 moderate self-efficacy</li><li><input type="radio"/> 40-60 more self-efficacy</li></ul>

**PROFORMA IV**

**BACK PAIN FUNCTIONAL SCALE (BPFS)**

Please rate the most appropriate options related to your back pain for the 12 different kinds of activities listed below. The least point ‘0’ indicates “inability to perform any activity” whereas the highest point ‘5’ indicates “no difficulty.”

Activity	Unable to perform activity (0)	Extreme difficulty (1)	Quite a bit of difficulty (2)	Moderate difficulty (3)	A little bit of difficulty (4)	No difficulty (5)
Usual work, housework or school activities						
Usual hobbies, recreational or sporting activities						
Performance of heavy activities around your home						
Bending or stooping						
Putting on your shoes or socks						
Lifting a box of groceries from the floor						
Sleeping						
Standing for 1 hour						
Walking 1 mile						
Going up or down 2 flights of stairs (about 20 steps)						
Sitting for 1 hour						
Driving for 1 hour						

## PROFORMA IV

## OSWESTRY LOW BACK DISABILITY QUESTIONNAIRE

Instructions: this questionnaire has been designed to give us information as to how your back pain has affected your ability to manage everyday life. Please answer every section and mark in each section only the ONE box which applies to you at this time. We realize you may consider 2 of the statements in any section may relate to you, but please mark the box which most closely describes your current condition.

**1. PAIN INTENSITY**

- I can tolerate the pain I have without having to use pain killers
- The pain is bad but I manage without taking pain killers
- Pain killers give complete relief from pain
- Pain killers give moderate relief from pain
- Pain killers give very little relief from pain
- Pain killers have no effect on the pain and I do not use them

**2. PERSONAL CARE (e.g. Washing, Dressing)**

- I can look after myself normally without causing extra pain
- I can look after myself normally but it causes extra pain
- It is painful to look after myself and I am slow and careful
- I need some help but manage most of my personal care
- I need help every day in most aspects of self care
- I don't get dressed, I was with difficulty and stay in bed

**3. LIFTING**

- I can lift heavy weights without extra pain
- I can lift heavy weights but it gives extra pain
- Pain prevents me from lifting heavy weights off the floor, but I can manage if they are conveniently positioned, i.e. on a table
- Pain prevents me from lifting heavy weights, but I can manage light to medium weights if they are conveniently positioned
- I can lift very light weights
- I cannot lift or carry anything at all

**4. WALKING**

- Pain does not prevent me walking any distance
- Pain prevents me walking more than one mile
- Pain prevents me walking more than ½ mile
- Pain prevents me walking more than ¼ mile
- I can only walk using a stick or crutches
- I am in bed most of the time and have to crawl to the toilet

**5. SITTING**

- I can sit in any chair as long as I like
- I can only sit in my favorite chair as long as I like
- Pain prevents me from sitting more than one hour
- Pain prevents me from sitting more than ½ hour
- Pain prevents me from sitting more than 10 minutes
- Pain prevents me from sitting at all

**6. STANDING**

- I can stand as long as I want without extra pain
- I can stand as long as I want but it gives me extra pain
- Pain prevents me from standing for more than one hour
- Pain prevents me from standing for more than 30 minutes
- Pain prevents me from standing for more than 10 minutes
- Pain prevents me from standing at all

**7. SLEEPING**

- Pain does not prevent me from sleeping well
- I can sleep well only by using medication
- Even when I take medication, I have less than 6 hrs sleep
- Even when I take medication, I have less than 4 hrs sleep
- Even when I take medication, I have less than 2 hrs sleep
- Pain prevents me from sleeping at all

**8. SOCIAL LIFE**

- My social life is normal and gives me no extra pain
- My social life is normal but increases the degree of pain
- Pain has no significant effect on my social life apart from limiting my more energetic interests, i.e. dancing, etc.
- Pain has restricted my social life and I do not go out as often
- Pain has restricted my social life to my home
- I have no social life because of pain

**9. TRAVELLING**

- I can travel anywhere without extra pain
- I can travel anywhere but it gives me extra pain
- Pain is bad, but I manage journeys over 2 hours
- Pain restricts me to journeys of less than 1 hour
- Pain restricts me to short necessary journeys under 30 minutes
- Pain prevents me from traveling except to the doctor or hospital

**10. EMPLOYMENT/ HOME MAKING**

- My normal homemaking/ job activities do not cause pain.
- My normal homemaking/ job activities increase my pain, but I can still perform all that is required of me.
- I can perform most of my homemaking/ job duties, but pain prevents me from performing more physically stressful activities (e.g. lifting, vacuuming)
- Pain prevents me from doing anything but light duties.
- Pain prevents me from doing even light duties.
- Pain prevents me from performing any job or homemaking chores.

PROFORMA V

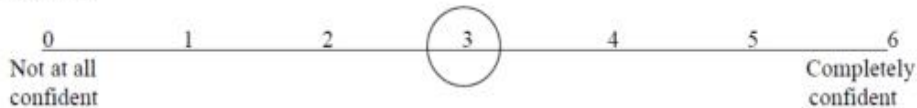
PAIN S-E QUESTIONNAIRE (PSEQ)

Nicholas (1989)

NAME: \_\_\_\_\_ DATE: \_\_\_\_\_

Please rate how **confident** you are that you can do the following things at present, despite the pain. To indicate your answer circle one of the numbers on the scale under each item, where 0 = not at all confident and 6 = completely confident.

For example:



Remember, this questionnaire is not asking whether or not you have been doing these things, but rather **how confident you are that you can do them at present, despite the pain.**

	Not at all confident			Completely confident			
	0	1	2	3	4	5	6
1. I can enjoy things, despite the pain	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. I can do most of the household chores (e.g. tidying -up, washing dishes, etc.), despite the pain	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. I can socialise with my friends or family members as often as I used to do, despite the pain.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. I can cope with my pain in most situations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. I can do some form of work, despite the pain. ("work" includes housework, paid and unpaid)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. I can still do many of the things I enjoy doing, such as hobbies or leisure activities, despite the pain	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. I can cope with my pain without medication.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. I can still accomplish most of my goals in life, despite the pain	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. I can live a normal lifestyle, despite the pain	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. I can gradually become more active, despite the pain	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>